

Test of Reasoning-2

Qs. 1-6. In each of the following questions, a number series is given. Below this series, a number is given followed by (A), (B), (C), (D) and (E). After understanding the pattern in the given series, you have to form another number series in the same order, starting from the given number.

1. 360 72 18 6 3
240 (A) (B) (C) (D) (E)

Which of the following numbers will come in place of (C)?

- (1) 6 (2) 4 (3) 8 (4) 9 (5) 3
2. 11 23 47 95 191
13 (A) (B) (C) (D) (E)

Which of the following numbers will come in place of (E)?

- (1) 395 (2) 401 (3) 419 (4) 447 (5) 421
3. 18 72 24 96 32
27 (A) (B) (C) (D) (E)

Which of the following numbers will come in place of (C)?

- (1) 140 (2) 144 (3) 172 (4) 152 (5) 156
4. 101 103 107 109 113
113 (A) (B) (C) (D) (E)

Which of the following numbers will come in place of (A)?

- (1) 121 (2) 125 (3) 127 (4) 131 (5) 133
5. 3 3 6 18 72
7 (A) (B) (C) (D) (E)

Which of the following numbers will come in place of (C)?

- (1) 42 (2) 54 (3) 59 (4) 62 (5) 66
6. 1 1 4 8 9 27
9 (A) (B) (C) (D) (E)

Which of the following numbers will come in place of (D)?

- (1) 36 (2) 216 (3) 81 (4) 125 (5) 25

Qs. 7-11. Match the series given in each question with (1), (2), (3), (4) and (5).

7. 27; 216; 1; 125; 64.
(1) They are prime numbers.
8. 97; 89; 43; 31; 23.
(2) All the numbers are divisible by 13.
9. 63; 161; 133; 147; 329.
(3) They are cubes of some number.
10. 255; 321; 417; 189; 243.
(4) All the numbers are divisible by 7.
11. 169; 221; 195; 143; 247.
(5) All the numbers are divisible by 3.

12. Which of the five equations given below is not correct?

- (1) $15 + 6 \div 2 \times 7 - 9 = 27$
(2) $1^2 + 2^2 \times 3^2 - 5 \times 2 = 27$
(3) $(-3 \times 2) + (11 \times 3) = 27$
(4) $4 \times 3 + 5 \times 3 - 2 = 27$
(5) $3^2 + 3^3 - (4 \times 2) + 1 = 27$

Qs. 13-15. Given below are certain symbols followed by three questions. Apply the symbols to the questions and find out the correct answer:

- A \square B means A is greater than B.
A \triangle B means A is equal to B.
A \neq B means A is smaller than B.
A \oplus B means A is not smaller than B.
A \odot B means A is not greater than B.

13. If $P \oplus Q$, $R \square S$ and $R \neq Q$, then relationship between S and P is:

- (1) $S \triangle P$ (2) $S \neq P$
(3) $S \square P$ (4) $S \oplus P$
(5) Can't say

14. If $Q \triangle R$, $S \odot R$ and $T \square R$, then the relationship between T and S is:

- (1) $T \square S$ (2) $T \triangle S$
(3) $T \neq S$ (4) $T \odot S$
(5) Can't say

15. If $PQ \neq RS$ and $S \triangle P$ then the relationship between R and Q is:

- (1) $R \triangle Q$ (2) $R \neq Q$
(3) $R \odot Q$ (4) $R \square Q$
(5) Can't say

Qs. 16-20 are based on the word, 'CONVERSATION'.

16. Which of the following words is different from the others in its relationship with the lead word?

- (1) TRANCE
(2) RENOVATION
(3) ACTION
(4) STATION
(5) STRAIN

17. Which of the following words is different in its relationship with the key-word?

- (1) COVER
(2) NATION
(3) VERSION
(4) CONVERT
(5) TENSION

18. Which of the following words has more than one extra letters?

- (1) NEVER
(2) VARIATION

- (3) CROSS
(4) ROTATION
(5) REMOVE

19. Which set in the series is different from the others?

- (1) COVS
(2) TINN
(3) IOCV
(4) ERAI
(5) RSTN

20. Which set of letters in the following series is arranged in a different way?

- (1) SVRE
(2) EONV
(3) TRAS
(4) AESR
(5) NTOI

21. If the value of CAT = 24, that of a DOG = 26, what would be the value of 'PIG'?

- (1) 37
(2) 25
(3) 29
(4) 34
(5) 32

Qs. 22-23. Miss Lily has four purses, in one of the purses she keeps five rupee notes, in the second one ten rupee notes, in the third one twenty rupee notes and in the fourth one fifty rupee notes. In all, she has 78 notes and the total amount, Rs 1500.

Now answer the following questions.

22. If the number of twenty rupee notes was 6 less than the ten rupee notes and the five rupee notes were four more than the fifty rupee notes, how many five rupee notes had she?

- (1) 32 (2) 25 (3) 20
(4) 12 (5) Can't say

23. If starting from the highest, she took out one note from it and then went on taking double number of notes from each purse as compared to the previous one, how much money did she take out?

- (1) Rs 170
(2) Rs 185
(3) Rs 210
(4) Rs 310
(5) Rs 260

Qs. 24 and 25 are based on the information given below:
Mr Singh has six coats on hangers in his wardrobe.

The white coat is between red and brown ones.

As he stands facing the wardrobe, the grey coat is towards his left, next to the brown one, which is on his right.

The blue coat is between the red and the black coats.

24. The red coat is between:

- (1) blue and brown
(2) white and black
(3) blue and white
(4) blue and black

(5) white and brown

25. Which two coats are at the left and right corners?

- (1) grey and black
(2) red and grey
(3) blue and white
(4) black and white
(5) blue and grey

Qs. 26-30. In each of the following questions, a word is given in capital letters. The word is written in code letters also, each small letter representing one of the letters of the word. Your task is to find out the right codes for the letters enclosed in box.

26. C R O W N

(1) y (2) f (3) u (4) k (5) d

27. S P I N E

(1) g (2) v (3) q (4) x (5) u

28. T R A I L

(1) h (2) d (3) g (4) j (5) z

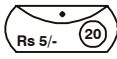
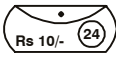
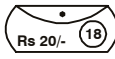
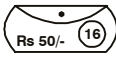
29. S W A R M

(1) d (2) h (3) b (4) f (5) x

30. P O I N T

(1) u (2) g (3) z (4) q (5) y

ANSWERS AND EXPLANATIONS

1. (2) The series is, starting from the last number, $2 \times 1 = 2$; $2 \times 2 = 4$; $4 \times 3 = 12$; $12 \times 4 = 48$; $48 \times 5 = 240$.
 2. (4) The series would be, $13 \times 2 + 1$; $27 \times 2 + 1$; $55 \times 2 + 1$; $111 \times 2 + 1$; $223 \times 2 + 1$.
 3. (2) The series is $27 \times 4 = 108$; $108 \div 3 = 36$; $36 \times 4 = 144$; $144 \div 3 = 48$...
 4. (3) It is a series of consecutive prime numbers.
 5. (1) The series is, $7 \times 1 = 7$; $7 \times 2 = 14$; $14 \times 3 = 42$; $42 \times 4 = 168$...
 6. (5) The series is 3^2 ; 3^3 ; 4^2 ; 4^3 ; 5^2 ...
 7. (3) 8. (1) 9. (4) 10. (5)
 11. (2) 12. (4) 13. (2) 14. (1)
 15. (4)
 16. (4) In other words, all the letters are from the main word, this one has an extra T.
 17. (5) In all the others, the order of the letters picked up from the main word has not been changed.
 18. (2) One A and one I.
 19. (4) The gap among the letters is different.
 20. (2) The arrangement is wrong.
 21. (5) The value is calculated according to the letter's position in the alphabets, P : 16 + I : 9 + G : 7 = 32.
 22. (3)    
 23. (1)
 24. (3)
 25. (1) The order is, grey, brown, white, red, blue and black.
- Qs. 26-30. Match the common code letters with common letters used in the word and thus reach the conclusion.
26. (2) 27. (4) 28. (1) 29. (3)
30. (5)

Test of Reasoning

Reasoning and General Awareness Paper of IMS Examination, 2001

Directions for questions 1 to 5: Each question has a main statement which is followed by three conclusions. You have to find out whether the conclusions are implicit in the main statement.

1. It is better if the resort stays closed in summer as the earnings would not cover the running costs.

I. The resort has a high running cost in summer.

II. The resort's business is low in summer.

III. A certain volume of business is necessary to cover running costs.

(1) All are implicit.

(2) None are implicit.

(3) Only II is implicit.

(4) Only II and III are implicit.

2. Though superior performance comes with a price tag, there's a point beyond which the consumer won't pay.

I. The consumer is willing to pay a little higher for a better product.

II. Companies cannot improve their products beyond a limit because they will not get proportional returns.

III. The consumer is only interested in a better product, not the best one.

(1) I and III are implicit.

(2) Only II is implicit.

(3) II and III are implicit.

(4) Only I is implicit.

3. Washing machine penetration is only 6 million so the majority of our consumers use handwash.

I. The number of the company's consumers far exceeds 6 million.

II. The company is interested in marketing washing machines.

III. The consumers referred to do not purchase washing machines from the company.

(1) II and III are implicit.

(2) I and III are implicit.

(3) only II is implicit.

(4) only I is implicit.

4. With globalisation has come a host of consumer products that are aspirational and on the 'must buy' list of most consumers.

I. Consumers mostly buy products that are essential.

II. Some products that are in the market today bank on the consumer's desire for useful products.

III. Some products symbolise a level of achievement to the consumer.

(1) only II is implicit.

(2) I and II are implicit.

(3) only III is implicit.

(4) none is implicit.

5. As the recession sets in people are foregoing large purchases. Yet in certain relatively low-priced areas, like accessories and home products, sales are doing well.

I. Low-priced areas do not suffer during a recession.

II. High-priced products cause losses to their company during a recession.

III. Accessories and home product's sales do not depend on the state of the economy.

(1) II and III are implicit.

(2) only III is implicit.

(3) I and II are implicit

(4) none is implicit.

Directions for questions 6 to 10: Arrange the sentences labelled alphabetically to form a coherent paragraph.

6. A. I had prayed for dirty weather, such as had favoured my previous voyage in the moat.

B. The night came fine and clear.

C. Still I reckoned that by keeping close under the wall and in the shadow I could escape detection from the windows of the chateau that looked out on the scene of my efforts.

D. If they searched the moat, indeed, my scheme would fail; but I did not think they would.

(1) ADCB

(2) BACD

(3) DCAB

(4) BCAD

7. A. Unfortunately businessmen themselves have accepted this moral condemnation—the unearned guilt.

B. Today only charity brings any moral recognition to businessmen.

C. They are more proud of their philanthropic activities than their productive work.

D. They are commended, not for the money they make but the money they give away.

(1) BCAD

(2) BADC

(3) BDAC

(4) BDCA

8. A. Several classics can be immediately listed where businessmen are portrayed as bad characters.

B. Businessmen are the most common villains.

C. A long search would be required to find a work, let alone a classic, that shows a businessman as

the hero.

D. This is also true in the so-called capitalist societies.

- (1) BDAC
- (2) BACD
- (3) ADBC
- (4) ACDB

9. A. The entire process that goes by the name of disinvestment needs a rethink.

B. The present government is the first one to use the word privatisation to describe the sale of government-owned equity in public sector enterprises.

C. The best way to do that is to sell at least 90 per cent of the equity to the public at large, maximising the base of ownership rather than government's receipts.

D. The focus should shift from mobilising resources for the government to transferring PSE ownership outside the government in a manner that has political credence.

- (1) ACDB
- (2) ADCB
- (3) ADBC
- (4) ACBD

10. A. Here again, as in Hinduism, these are all exercises designed to purify the body and elevate the mind.

B. It is linked to ten supreme virtues.

C. Of all the Jain Festivals "Dasa Lakshmana" is very important.

D. The word 'Supreme' signifies 'abiding in the right faith'.

- (1) CBDA
- (2) CADB
- (3) CDAB
- (4) CBAD

Directions for questions 11 to 35: Choose the correct alternative.

11. UNESCO has its capital in:

- (1) Germany
- (2) Paris
- (3) USA
- (4) Italy

12. What is the full form of 'COFEPOSA'?

- (1) Conservation of Forest Environment and Prevention of Smuggling Act.
- (2) Conservation of Foreign Exchange and Prevention of Smuggling Act.
- (3) Committee of Forest Environment and Prevention of Smuggling Act.
- (4) Committee of Foreign Exchange and Prevention of Smuggling Act.

13. The motto of CNBC India is:

- (1) Profit from it
- (2) With you all the way
- (3) Leading the way

(4) Makes life simple

14. 'Kohima' is the Capital of:

- (1) Manipur
- (2) Mizoram
- (3) Nagaland
- (4) Meghalaya

15. The Governor of R.B.I. is:

- (1) K.R. Narayan
- (2) Bimal Jalan
- (3) R.K. Narayan
- (4) Jana Krishnamurthy

16. From 'ISRO' to 'DISCOVERY' it has been a journey of professional excellence for this person. He is now the president of Nasscom:

- (1) Kiran Karnik
- (2) Narayan Murthy
- (3) Dewang Mehta
- (4) S. Ramadorai

17. Which of the following is not internet lingo?

- (1) ASAP
- (2) BTW
- (3) HSBC
- (4) BBS

18. Which of the following does not belong to the group?

- (1) Itanagar
- (2) Dispur
- (3) Chandigarh
- (4) Ranchi

19. Who of the following won the Men's Singles French Open 2001?

- (1) Pete Sampras
- (2) Andre Agassi
- (3) Gustavo Kuerten
- (4) Goran Ivansevic

20. Who is the President of the World Bank?

- (1) Michael Condesus
- (2) James Wolfensohn
- (3) Romano Prodi
- (4) Mike More

21. "Equilibrium Price" is that price which:

- (1) maximizes producers profit
- (2) equates consumers and producers surplus
- (3) maximize consumers satisfaction
- (4) equates supply and demand

22. Telco was incorporated in 1945 in collaboration with:

- (1) Daimler-Benz
- (2) General Motors
- (3) Volvo
- (4) Ford Motors

23. "Finance is no laughing matter", is the punch line of:

- (1) L.I.C. mutual fund
- (2) Business Standard
- (3) ICICI mutual fund
- (4) HDFC

24. "Viagra" is the brand of:

- (1) Glaxo
- (2) Unilever
- (3) Pfizer
- (4) Hoescht
25. Which of the following event was dropped from the Olympics?
 - (1) Polo
 - (2) Football
 - (3) Hockey
 - (4) Tennis
26. The Chairman of the Planning Commission is:
 - (1) Jana Krishnamurthy
 - (2) Atal Behari Vajpayee
 - (3) Ramesh Chandra
 - (4) J.M. Lyngdoh
27. ___ was re-elected the president of the Indian Olympic Association.
 - (1) Jagmohan Dalmia
 - (2) Mr Suresh Kalmadi
 - (3) A.C. Muthia
 - (4) K.P.S. Gill
28. Which of the following is a wrong match?
 - (1) Santro-Korea
 - (2) Matiz-Taiwan
 - (3) Zen-Japan
 - (4) Maruti-India
29. Mr Janki Ballabh is the Chairman of:
 - (1) SBI
 - (2) ICICI
 - (3) HSBC
 - (4) IDBI
30. What is the full form of GATT?
 - (1) Grand Agreement in Trade Trends.
 - (2) Great Agreement on Tariff and Trade.
 - (3) General Agreement on Trade and Tariffs.
 - (4) None of the above.
31. Who was the founder of General Electric?
 - (1) Elihu Thompson
 - (2) Henry Ford
 - (3) Billy Winburn
 - (4) Bill Gates
32. Amitav Ghosh has written which of the following books?
 - (1) The Golden Gate
 - (2) The God Father
 - (3) The God of Small Things
 - (4) The Glass Palace
33. The G-8 countries includes all the G-7 countries plus:
 - (1) India
 - (2) Russia
 - (3) China
 - (4) Iraq
34. The theme "IT now stands for Inspiration Technology" is which of the following company's punch line?
 - (1) Compaq

- (2) IBM
 - (3) Apple
 - (4) Satyam
 35. The Information Technology capital of India is:
 - (1) Hyderabad
 - (2) Bangalore
 - (3) Mumbai
 - (4) Chennai
- Directions for questions 36 and 37:** Refer to the data below and answer the questions that follow.
- Following information is available about the Kapoor family.
1. Prithvi Raj had grandchildren only from one of his three sons.
 2. Prithvi Raj's son Sharukh did not marry.
 3. Neetu's grandfather Amir had two brothers Salman and Sharukh.
 4. Randhir had two unmarried daughters and one brother who did not have any children.
 5. There were 6 males and 2 females (one of them being Geeta) in the family as mentioned.
- Use additional data from the question itself:
36. If Chintu is a member of the family then he is the brother of:
- (1) Amir
 - (2) Salman
 - (3) Randhir
 - (4) None of these
37. The total number of fathers in the family are:
- | | |
|-------|-------|
| (1) 1 | (2) 2 |
| (3) 3 | (4) 4 |
- Directions for questions 38 to 40:** Refer to the data below and answer the questions that follow.
- A six-digit number ABCDEF is formed using the following rules:
- (a) All the alphabets A, B, C, F represent a unique digit.
 - (b) Three of the digits are even.
 - (c) None of the digits is smaller than 2.
 - (d) Only two of the digits are prime numbers.
 - (e) None of the digits has its predecessor to the left of it.
38. Which of the following can be the answer to the problem?
- (1) 356872
 - (2) 746859
 - (3) 793502
 - (4) 561023
39. Which odd number is a must in the number ABCDEF?
- | | |
|-------|-------|
| (1) 3 | (2) 5 |
| (3) 9 | (4) 7 |
40. What is the probability that 5 would be used in the number if 3 is already used?
- | | |
|-------------------|-------|
| (1) $\frac{1}{4}$ | (2) 1 |
|-------------------|-------|

- (3) 0 (4) $\frac{1}{2}$

Directions for questions 41 and 42: Refer to the data below and answer the questions that follow.

6 people A, B, C, D, E and F are sitting in 2 rows with 3 chairs facing each other. A person is said to be sitting diagonally opposite to another when he sits in the opposite row immediately to the right or left of the person who is exactly opposite to him.

- (a) B sits diagonally opposite to F.
(b) A sits at the end of one row and E sits opposite to him.

41. If D sits at one of the remaining 2 ends, who cannot sit opposite him?

- (1) B (2) F
(3) C (4) All three can sit

42. With reference to the above question, if B and C never sit adjacent to each other, who sits diagonally opposite to A?

- (1) C (2) B
(3) F (4) (1) or (2)

Directions for questions 43 and 44: Refer to the data below and answer the questions that follow.

In a certain code, sa re ga ma means "Island of the dead". ga pa re dha means "the end of time". na se ma pa means "It's a dead end".

43. Which of the following could mean "time of the jackal"?

- (1) sur ga re pa
(2) ga sur pa ma
(3) re ga sur dha
(4) ga re dha ma

44. If pov is code for monkey and ga pur do ma means "the jackal is dead" what is the code for "the monkey is dead"?

- (1) ga sur ma pov
(2) ga do pov ma
(3) sur do ga pov
(4) Cannot be determined

Directions for questions 45 and 46: Refer to the data below and answer the questions that follow.

A school has exactly 100 lockers and 100 students. The first student who enters the school opens all the locker doors. The second student enters and shuts every second door. The third student enters and toggles every third door (i.e., if it is open, he shuts it and vice versa). The fourth student enters and toggles every fourth door. And so on until all 100 students have passed through.

45. Which of the following doors would be open at the end?

- (1) 80th (2) 81st
(3) 83rd (4) 84th

46. Which of the following doors would be in closed position?

- (1) 1st

- (2) 81st
(3) 21st
(4) None of these

Directions for questions 47 to 50: Refer to the data below and answer the questions that follow.

The new television remote of the BPL television set has some unusual features. The T + 2 button takes you to the channel which is two channels ahead of the current one (i.e., Channel 1 to channel 3). The PP button takes you back to the channel which was switched on before the current one. The PR button takes one to the channel which is a prime numbered channel just ahead of the current channel. And, last but not the least the MAG button which instantaneously takes you to your favourite channel. Amit has made Star Plus (Channel no. 17) as the Magic channel (favourite). (Use the additional data from the questions.)

47. If his T.V. is on Star Plus and he presses T + 2, PR, PR, PP to come to Zee then on which channel is Zee located:

- (1) 19 (2) 23
(3) 25 (4) 29

48. If the current channel is Zee and Amit presses T + 2, PR, PP, T + 2 then he will arrive on channel number:

- (1) 25 (2) 27
(3) 29 (4) 31

49. If the current channel is Star Plus how can he reach channel number 25:

- (1) T + 2, PR, T + 2
(2) PR, PP
(3) T + 2, T + 2, PR
(4) None of these

50. If the Star Sports channel is channel 30 then how many channels are there between Zee and Star Sports:

- (1) 5 (2) 6
(3) 7 (4) None of these

Data Sufficiency and Data Interpretation

Directions for questions 51 to 63: Each of the following questions is followed by two statements.

Mark (1), if the question can be answered by using any of the statements alone but not by using the other statement alone.

Mark (2), if the question can be answered by using either of the statements alone.

Mark (3), if the question can be answered only by using both the statements together.

Mark (4), if the question cannot be answered.

51. Find the values of two integers 'x' and 'y' such that 13 is the greatest integer that exactly divides both 'x' and 'y'.

I. 299 is the smallest number that is divisible by both x and y.

II. 23 divides x but not y.

52. What is the length of the radius of a circle with centre O?

I. The shortest distance from an external point A of

the circle is 3.15 cm.

- II. The length of a tangent from an external point A of the circle is 7 cm.

53. In the perfectly matched addition problem given below, where each alphabet represents a unique number what is the value of B?

$$\begin{array}{r} AB \\ +AB \\ \hline CCD \end{array}$$

- I. Value of C is 1.
II. Value of D is 4.

54. Is a positive integer 'n' a square of a perfect square?

- I. The last digit of n is 6.
II. The last digit of n is 4.

55. What is the average of the ages of two sisters Lina and Richa if the average age of their family is 40?

- I. The average age of the rest of the family is 50.
II. There are in all 7 members in the family.

56. Is $x < y$?

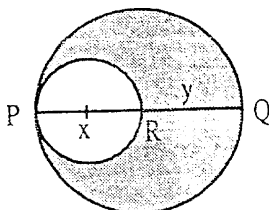
- I. $x = -y$

II. $\frac{1}{x^n} > \frac{1}{y^n}$

57. Is a three-digit number pqr a prime where p, q and r are three distinct digits of the number and $p > r$?

- I. $(pqr - rqp)$ is a multiple of 99.
II. $p + r = q$

58. What is the ratio of the shaded area to that of unshaded where $PR = x$; $RQ = y$?



- I. The ratio of $x : y = 2 : 3$.
II. The centres of the two circles lie in the same straight line PQ.

59. Of the three articles A, B and C which is the most expensive?

- I. A and C together cost 40% more than B. Also A and B together cost twice as much as C.
II. A costs twice as much as B and C together cost.

60. Does x lie between 0 and 3?

- I. $|x^2 - 3x| > x^2 - 3x$
II. x is real.

61. S_n is a sequence consisting of the first thirty terms of a geometric progression. The n^{th} terms of S_n is denoted by T_n . How many terms of S_n are greater than or equal to 20?

- I. $T_1 = 5$ and $T_5 = 80$.
II. T_{14} is a positive rational number.

62. Let P be defined as a product of n consecutive integers starting from 1. Is P divisible by 16?

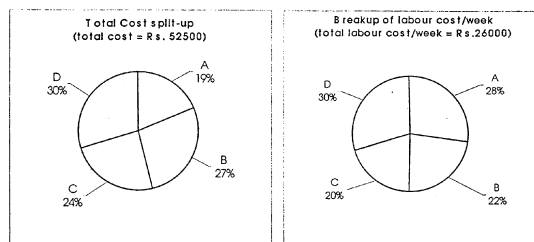
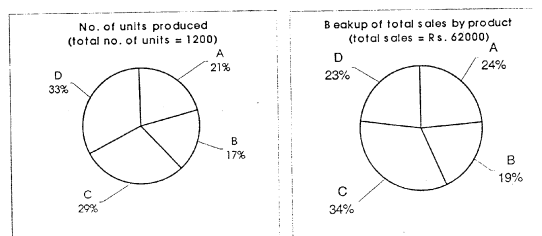
- I. $n < 8$
II. $n > 8$

63. A cow tied to a rope grazes around a field circular in shape. What is the length of the rope?

- I. The circumference of the field that the cow can graze is 628 feet.
II. The cow can graze a maximum area of 314 square feet.

Directions for questions 64 to 68: Refer to the data below and answer the questions that follow.

A company sells four products A, B, C and D. The product wise breakup of sales (in units), sales in Rs, total cost and labour hours/week is as given in the following pie charts.



64. Which of the four products has maximum profit per unit?

- (1) A (2) B
(3) C (4) D

65. Which product has the maximum of profit per labour hour?

- (1) A (2) B
(3) C (4) D

66. Which of the following is the correct order for products arranged in descending values of sales revenue per labour cost hour?

- (1) C - B - A - D
(2) C - B - D - A
(3) C - D - A - B
(4) None of these

67. If the labour rate is Rs 0.5/hr, what is the ratio of labour cost to total cost for product C?

- (1) 1 : 9 (2) 1 : 4
(3) 1 : 7 (4) 1 : 5

68. Profit margin is defined as the ratio of total profit for

product to total cost for the product. Which product has the maximum profit margin?

- (1) A (2) B
(3) C (4) D

Directions for questions 69 to 73: Refer to the data below and answer the questions that follow.

A company y2k sells its products A, B, C and D in markets of Punjab, Goa, Bihar and Kerala. The market size for the products A, B, C, D (and similar products made by the competitors of y2k) is given in Table 1. Whereas Table 2 gives the number of units sold in these markets over time.

Table 1: Market size over time (from 1990-2000)
(No. of units)

| Market | 1990 | | | | 1995 | | | | 2000 | | | |
|--------|------|------|------|------|------|------|------|-----|------|------|-----|------|
| | A | B | C | D | A | B | C | D | A | B | C | D |
| Punjab | 1520 | 2500 | 624 | 1000 | 1600 | 2500 | 710 | 920 | 1220 | 1500 | 430 | 900 |
| Kerala | 940 | 340 | 830 | 620 | 1420 | 200 | 820 | 720 | 940 | 480 | 460 | 500 |
| Bihar | 1320 | 700 | 1100 | 700 | 1410 | 720 | 1200 | 630 | 1200 | 590 | 720 | 950 |
| Goa | 1280 | 820 | 900 | 700 | 1200 | 910 | 1200 | 740 | 930 | 730 | 840 | 1020 |

Table 2: Number of units sold by y2k

| Market | 1990 | | | | 1995 | | | | 2000 | | | |
|--------|------|------|-----|-----|------|------|-----|-----|------|------|-----|-----|
| | A | B | C | D | A | B | C | D | A | B | C | D |
| Punjab | 750 | 1215 | 328 | 520 | 800 | 1260 | 360 | 542 | 820 | 1300 | 395 | 560 |
| Kerala | 620 | 120 | 421 | 320 | 625 | 125 | 400 | 315 | 640 | 140 | 390 | 325 |
| Bihar | 735 | 355 | 541 | 450 | 760 | 358 | 545 | 472 | 785 | 362 | 550 | 492 |
| Goa | 640 | 410 | 389 | 510 | 625 | 451 | 525 | 525 | 610 | 490 | 510 | 550 |

$$\text{Market share} = \frac{\text{Company sales}}{\text{Market size}}$$

69. For which product the company had the largest total market share in year 2000?

- (1) A (2) B
(3) C (4) D

70. For which of the following regions, product B has shown the largest (%) increase in its market share from 1990 to 2000 by the company y2k?

- (1) Punjab
(2) Kerala
(3) Bihar
(4) Goa

71. For which product, the total sales (in units) of the company y2k has increased the most (in %) over the period 1990-2000?

- (1) A (2) B
(3) C (4) D

72. Which product—market combination has shown the largest market share growth from 1999-2000 by the company y2k?

- (1) Product A—market Goa
(2) Product C—market Kerala
(3) Product B—market Punjab
(4) Product D—market Bihar

73. For which product in Goa region the company y2k

has shown the largest growth in the market share from 1999-2000?

- (1) A (2) B
(3) C (4) D

Directions for questions 74 to 77: Refer to the data below and answer the questions that follow.

Following pie-charts denote the number of runs scored by the Indian batsmen in years 1997 and 1998. Number of balls faced by them are also shown. Striking rate is defined as the number of runs scored per ball faced.

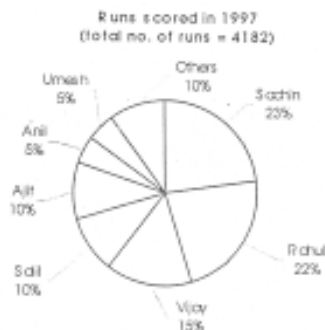


Fig. A: Number of runs made by batsmen in 1997



Fig. B: Number of runs made by batsmen in 1998

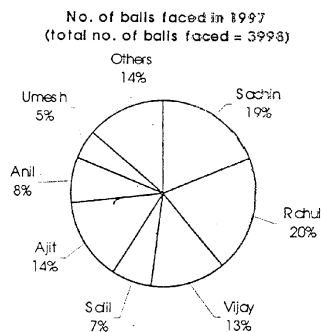


Fig. C: Number of balls faced by batsmen in 1997

No. of balls faced in 1998
(total no. of balls faced = 4150)

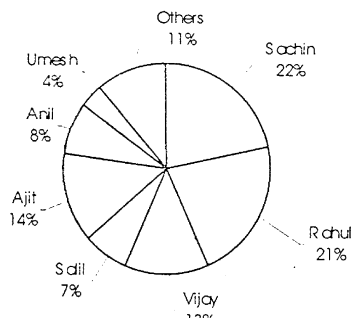


Fig. D: Number of balls faced by batsmen in 1998

74. Who had the best striking rate in 1997?

- (1) Salil (2) Sachin
(3) Rahul (4) Vijay

75. Which batsman has increased his striking rate from 1997 to 1998 the most by what per cent?

- (1) Sachin by 12%
(2) Salil by 20%
(3) Anil by 35%
(4) Rahul by 10%

76. How much has the average striking rate increased from 1997 to 1998?

- (1) 3.4% (2) -3.4%
(3) -2.4% (4) 10%

77. Which of the following batsmen have increased their striking rate by more than the increase in Sachin's striking rate?

- (1) Salil (2) Vijay
(3) Both of them (4) None

Directions for questions 78 to 83: Refer to the data below and answer the questions that follow.

Evershine Nagar, a colony in a Mumbai suburb have a population of 40,000 in 1995. Its population increased by 50% in 1998 and subsequently because of poor facilities and migration, decreased by 10000 in 2001. The figure below shows the capacity of the residents to afford several luxuries expressed as a percentage of the population of the place.

| Luxury | % in 1995 | % in 1998 | % in 2001 |
|-------------------|-----------|-----------|-----------|
| Airconditioner | 18 | 30 | 40 |
| Car | 28 | 39 | 55 |
| Cellular phone | 12 | 35 | 60 |
| Computer | 25 | 45 | 70 |
| Overseas holidays | 11 | 28 | 48 |
| VCD Player | 5 | 22 | 45 |

78. How many people could not afford an airconditioner in 1998?

- (1) 16800
(2) 28800
(3) 42000
(4) 36600

79. A certain source suggests that the number of computers in 2000 were 33000 and 1650 pieces were scrapped off by 2001, how many computers were sold in 2001?

- (1) 35000 (2) 2000
(3) 5300 (4) 3650

80. Assuming that the rate of change of population from 1998 to 2001 would have been the same as from 1995-1998, what would be the number of people enjoying an airconditioner, assuming all other data remained unchanged?

- (1) 20000 (2) 36000
(3) 24000 (4) 27000

81. If figures for luxuries in 1998 get interchanged with that of 2001, without change in population, what would be the difference in the number of people who could afford an overseas holiday in 1998 from those in 1995?

- (1) Increase of 4400
(2) Increase of 10800
(3) Increase of 14000
(4) None of these

82. If 'Sony' sold 1600 pieces of VCD player in 1995 and 7920 in 1998, by how much did its share in market change?

- (1) Increase by 60%
(2) Decrease to 60%
(3) Decrease by 20%
(4) None of these

83. If Orange, a cellular services provider occupying 50% share in cell phone market in 2001 decides to offer 50% free connections more (i.e., on its existing number of connections). What % would be enjoying cellular service?

- (1) 75 (2) 62.5
(3) 37500 (4) 31250

Directions for questions 84 to 88: Refer to the data below and answer the questions that follow.

The data below gives us an insight into various aspects of an MNC manufacturing different products. Each figure gives a percentage of products representation in that particular aspect of the company.

| Product | Capacity (units) | Workforce | Capital Invest-ment | Promotion cost | Sales value | Profit (net) |
|--------------|------------------|-----------|---------------------|----------------|-------------|--------------|
| Soaps | 9 | 4 | 8 | 28 | 17 | 12 |
| Locks | 18 | 13 | 11 | 18 | 18 | 27 |
| Furniture | 42 | 54 | 31 | 24 | 30 | 36 |
| Refrigerator | 17 | 16 | 28 | 9 | 14 | 8 |
| Washing m/c | 8 | 10 | 20 | 13 | 15 | 9 |
| Others | 6 | 3 | 2 | 8 | 6 | 8 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 |

Note: Use the additional data from the questions.

84. If the total capital is 5100 crores and net profit 100 crores, which items gave maximum return for capital investment?

- (1) Data insufficient
- (2) Soaps
- (3) Furniture
- (4) Others

85. If Cinthol, one of the soaps forms 25% of the share of sales at 34 crores, what is the sales per capital ratio for washing machines?

- (1) 3 : 102
- (2) 2 : 17
- (3) 1 : 12
- (4) None of these

86. The workforce for soaps suffered a major setback when 120 people (*i.e.*, 50% of them) left last year, find sales in Rupees/Worker ratio for locks?

- (1) 36900 lakhs
- (2) 3.7 lakhs
- (3) 37 lakhs
- (4) None of these

87. If promotional cost was 13 crores for washing machines, how much money did the company spend on promotion of furniture through wardrobes if it forms 70% of its promotional cost?

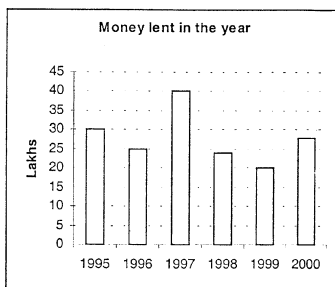
- (1) 16.8 crores
- (2) 16.8 lakhs
- (3) 70 crores
- (4) None of these

88. If there are 51 refrigerator units, how many workers per unit are there for others?

- (1) 90
- (2) 5
- (3) 18
- (4) 0.2

Directions for questions 89 to 94: Refer to the data below and answer the questions that follow.

Following is a data about a financial company which lends out money on interest for 3 years. On failure to return the money after the stipulated period the borrower has to pay a fine of 1% per annum on the borrowed amount. For *e.g.*, an amount of 10000 borrowed by a party in 1995 has to be returned in 1997 for which the borrower/party pays the interest prevalent during that period.



| Interest Rate | |
|---------------|--------|
| Year | % Rate |
| 1995 | 13 |
| 1996 | 14 |
| 1997 | 12 |
| 1998 | 12 |
| 1999 | 12.5 |
| 2000 | 14 |

The money borrowed in 1997 was returned a year later than

the due date.

89. The interest that was earned in 1997 is more by how much than the interest that was earned in 1996?

- (1) 3.7 lakhs
- (2) 1.3 lakhs
- (3) 4.3 lakhs
- (4) None of these

90. If the interest rate would have been 12% throughout, what would the total earnings for 1998 and 1999 be?

- (1) 5.28 lakhs
- (2) 20.76 lakhs
- (3) 12.96 lakhs
- (4) None of these

91. What was the earning in 2000?

- (1) 16.48 lakhs
- (2) 10.08 lakhs
- (3) 16.08 lakhs
- (4) None of these

92. If the amount lent in 1997 would have been 20 instead of 40, what would be the difference in the interest earned in 1998, all other terms remaining the same?

- (1) 2.4 lakhs
- (2) 2.8 lakhs
- (3) 2.0 lakhs
- (4) None of these

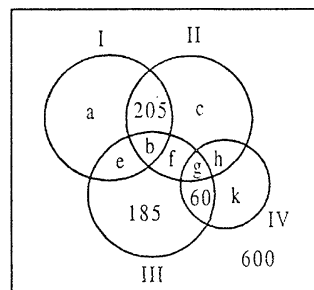
93. The amount lent out in 1999 was half of what was lent in 1997. What was the interest difference for the two years on the amount lent out only in that particular year?

- (1) 0.9 lakhs
- (2) 2.3 lakhs
- (3) 1.8 lakhs
- (4) None of these

94. If the target for 2001 is lending out 40 lakhs and the expected rate of interest is 15% how much will the company earn if the amount borrowed in 1998 is returned in 2001 instead of 2000?

- (1) 16.8 lakhs
- (2) 17.08 lakhs
- (3) 17.04 lakhs
- (4) 13.2 lakhs

Directions for questions 95 to 100: The diagram below shows the movement of a certain section of sailors from Asia to various continents. Read the statement carefully and answer the questions that follow.



* Total sailors = 2000, I—America, II—Europe,

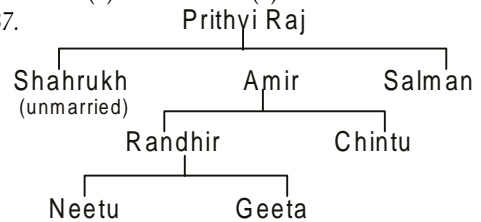
III—Africa, IV—Australia

- * Sailors who have seen only America are 310.
 - * Those visited Europe and Africa only are 60.
 - * Similarly those who have visited Africa and America only and Australia and Africa only are 60 each.
 - * Those who have visited both America and Europe are 250 including 45 who have also seen Africa.
 - * Those visited Europe and Australia only are 32.
 - * Total sailors who have visited Australia is just 9% of total with 65 seeing Australia alone.
 - * Those who have visited only Europe are 45 more than those who saw only America.
 - * 30% of the sailors have not visited another continents.
95. How many sailors visited Africa?
 (1) 185
 (2) 373
 (3) 410
 (4) None of these
96. What percentage of all those who visited another continent apart from Africa, has seen Europe?
 (1) 25.35
 (2) 720
 (3) 36
 (4) 51.42
97. How many sailors visited both Africa and Europe and how many visited both Africa and Australia?
 (1) 248, 83
 (2) 128, 115
 (3) 128, 83
 (4) None of these
98. What % of total sailors saw 3 continents?
 (1) 4.86
 (2) 9.14
 (3) 68
 (4) 3.4
99. If the number of sailors who visited all three continents; Europe, Australia and Africa would have been 77 more than the current figure, and all figure remaining same, then what percentage of total sailors would have visited Africa?
 (1) increase by 4%
 (2) increase by 2%
 (3) decrease by 4%
 (4) remain the same
100. How many sailors saw only 2 continents apart from Asia and how much was it greater/lesser than those who saw only one?
 (1) 1515
 (2) Lesser by 498
 (3) Lesser by 1098
 (4) 915

ANSWERS AND EXPLANATIONS

- | | | | |
|---------|---------|---------|---------|
| 1. (4) | 2. (1) | 3. (3) | 4. (1) |
| 5. (3) | 6. (2) | 7. (3) | 8. (2) |
| 9. (2) | 10. (4) | 11. (2) | 12. (2) |
| 13. (1) | 14. (3) | 15. (2) | 16. (1) |
| 17. (3) | 18. (3) | 19. (3) | 20. (2) |
| 21. (4) | 22. (1) | 23. (1) | 24. (3) |
| 25. (1) | 26. (2) | 27. (2) | 28. (2) |
| 29. (1) | 30. (3) | 31. (1) | 32. (4) |
| 33. (2) | 34. (1) | 35. (2) | |

36. and 37.



- | | | | |
|---------|---------|---------|---------|
| 36. (3) | 37. (3) | 38. (2) | 39. (3) |
|---------|---------|---------|---------|

40. (4) Only three arrangements are possible, hence $\frac{3}{6} = \frac{1}{2}$

41 and 42. Probabilities:

| | | | | |
|----|-----|-----|-----|-----|
| ↓ | ABD | ACF | DBA | FCA |
| ↑ | ECF | EBD | FCE | DBE |
| OR | ECF | EBD | FCE | DBE |
| | ABD | ACF | DBA | FCA |

- | | | | |
|---------|---------|---------|---------|
| 41. (3) | 42. (4) | 43. (3) | 44. (2) |
|---------|---------|---------|---------|

45 and 46. Before toggling, every odd locker is open and every even locker shut. (shut +; open ×)

- | | | | |
|------|--------|--------|--------|
| 1. × | 2. + | 3. ⊗ + | 4. + ⊗ |
| 5. × | 6. + × | 7. × | 8. + ⊗ |

and so on. Thus we see that the number of times a lock is toggled is the number with which that number is divisible. e.g. 4 is opened by 1, shut by 2, reopened by 4; in the same way locker no. 12 will be opened by 1, shut by 2, opened by 3, shut by 4, opened by 6 and finally shut by 12.

45. (2) 1—⊗ 3—⊕ 9—⊗ 27—⊕ 81—⊗
 46. (3) 1—⊗ 3—⊕ 7—⊗ 21—⊕
 47. (2) Amit is on channel 17. T+2 = 19; PR = 23; PR = 29; PP = 23.
 48. (2) Zee 23; T + 2 = 25; PR = 29; PP = 25; T + 2 = 27.
 49. (1) 50. (3) 51. (1) Statement II only.
 52. (3) 53. (3) 54. (1) Statement I only.
 55. (3) 56. (1) Statement I only.
 57. (4) 58. (3) 59. (3) 60. (3)
 61. (3)
 62. (1) Statement II only.
 63. (1) Statement II only.
 64. (3) 65. (3) 66. (1) 67. (4)
 68. (1) 69. (4) 70. (1) 71. (2)
 72. (3) 73. (2) .67

74. to 77. The table can be worked out as follows.

| Names | 1997 | | | 1998 | | |
|--------|------|-------|---------------|------|-------------|---------------|
| | Runs | Balls | Striking rate | Runs | Balls | Striking rate |
| Sachin | 961 | 759 | 1.2 | 1005 | 913+1 = 914 | 1.1 |
| Rahul | 920 | 799 | 1.15 | 963 | 817+1 = 818 | 1.17 |
| Vijay | 627 | 519 | 1.20 | 670 | 539 | 1.24 |
| Salil | 419 | 279 | 1.49 | 335 | 290 | 1.15 |
| Ajit | 419 | 559 | .75 | 503 | 582 | .86 |
| Anil | 209 | 319 | .65 | 294 | 333 | .88 |
| Umesh | 209 | 200 | 1.05 | 209 | 167 | 1.25 |
| Others | 419 | 419 | 1 | 209 | 457 | .45 |
| | | | 1.460230 | | | 1.009638 |

74. (1) 75. (3) 76. (2) 77. (2)
 78-82. Population: 40,000 in 1995, 60,000 in 1998 and 50,000 in 2001

78. (3) 60,000 - 18,000 (30%) = 42,000.
 79. (4) In 2000, 33000 - 1650 = 31350
 In 2001, 70% persons had computer, i.e. 35,000 had them
 35,000 - 31,350 = 3650.

80. (2) Population increase from 1995 to 1998 at the rate of 50% = 6000. With the same rate (50%) population in 2001 would be 90,000.

Persons having airconditioners 40%, hence 36,000.

81. (4) 1998, 48% of 60,000 = 28,800

1995, 11% of 40,000 = 4400

Increase of 28800 - 4400 = 24400

82. (3) VCD players in 1995, 5% of 40,000 = 2000

Out of 2000, 'Sony' sold 1600, i.e. 80%

In 1998, 22% of 60,000 = 13200

Out of 13200, Sony sold 7920 pieces, i.e. 60%

Hence 80% - 60% = 20%

83. (1) 50% means 30% of the total, i.e. 30% of the population (50,000) has Orange = 15,000

50% of 15000 is 7500

15000 + 7500 = 22500 which is 75% of the total.

84. (4) First, we find out the investment made in various items. Soaps: 8% of 5100; Furniture: 31% of 5100 and Others: 2% of 5100. We get the figures 408, 1581 and 102 crores respectively. Next, we calculate the return.

Soaps = $\frac{12}{408} = 2.9\%$

Furniture: $\frac{36}{1581} = 2.27\%$

Others: $\frac{8}{102} = 7.8\%$.

The last is the highest.

85. (2) Total sales of soaps = $34 \times 4 = 136$ crores.

This represents 17% of sales value

Hence total sales = $\frac{136}{17} \times 100$

= 800 crores.

Sales of washing machines = 15% of 800 = 120

Capital for washing machines = 20% of 5100
 = 1020 crores

Required ratio = 120 : 1020 = 2 : 17

86. (3) Workforce in soaps = 4% of total workforce = 120

Hence total workforce = 3000

Workers for locks = 13% of 3000 = 390

Required ratio = 18% of $\frac{800}{390} = \frac{144}{390}$ crore = 36.9 lakhs

87. (1) Total promotional cost can be computed as 100 crores

Promotional cost for furniture = 24 crores

Required figure = 70% of 24 = 16.8 crores

88. (2) Refrigerators = 17% of x = 51

Hence total capacity = 300 units

Workers in others = 3% of 3000 = 90

Hence reqd figure = $\frac{90}{6\% \text{ of } 300} = \frac{90}{18} = 5$

89. (1) Total amount on which interest is chargeable in 97 = 30 + 25 + 40 = 95 lakhs

Interest = 95 × 12% = 11.4 lakhs

Interest in 96 = 14% of (30 + 25) = 7.7 lakhs

Difference = 11.4 - 7.7 = 3.7 lakhs

90. (2) Amount in 98 = 25 + 40 + 24 = 89

Amount in 99 = 40 + 24 + 20 = 84

Total interest chargeable = 12% of (89 + 84)
 = 20.76 lakhs

91. (3) Earnings on 2000 will be on amounts from 1997 onwards = 40 + 24 + 20 + 28 = 112

Interest = 14% of 111 = 15.68

Add Penalty on amount in 97 = 1% of 40 = 0.4

Total earning in 2000 = 15.68 + 0.4 = 16.08 lakhs

92. (1) Differential in interest in 1998 = 12% of 20 = 2.4 lakhs

93. The Question is not clear

94. (3) Total amount in 2001 = 40 + 28 + 20 + 24 = 112

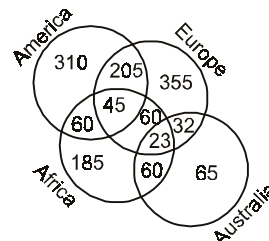
Interest earned = 15% of 112 = 16.8 lakhs

Add penalty on amount lent in 1998 = 1% of 24
 = 0.24

Hence total earning = 16.8 + 0.24 = 17.04 lakhs

Note: The directions for Qs 89 to 94 are not clear. It should mention, "The interest is paid on total amount outstanding at any given year at the rate prevalent in that year." The questions can only be answered if this information is given. Also, the penalty should be clearly mentioned that the extra 1% should be paid at the end of the term.

Qs. 95-100.



95. (4) 433

96. (3)

97. (3)

98. (4)

99. (1)

100. (2)

Test of Reasoning

Solved Paper of Oriental Insurance Company A.A.O. Exam. held on January 27, 2002

Qs. 1-5. In every of these questions there are three words in the first line and two words and a blank (?) in the second line followed by four alternatives under the two lines. There is some relationship among the words in the first line. A similar relationship obtains between the two words in the second line and one of the alternatives given under it. Find that alternative in each question and mark your answer on the answer-sheet.





1. Lamp—light—torch
Rose—fragrance—?
(1) joy (2) thorns (3) smell (4) champa
2. Paragraph—sentence—word
Tree—fruit—?
(1) leaf (2) root (3) bark (4) seed
3. Bull—calf—cow
Horse—colt—?
(1) animal (2) mare (3) pet (4) pony
4. Gun—sword—dagger
Pistol—knife—?
(1) spear (2) rifle (3) bow (4) cannon
5. Ship—aeroplane—boat
Car—balloon—?
(1) driver (2) goods (3) truck (4) wagon

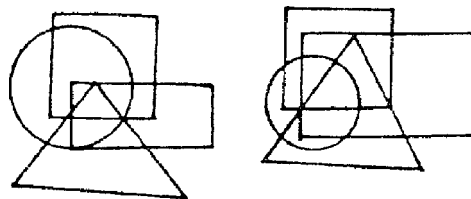
Qs. 6-10. In each of the following questions two words marked A and B are missing which are given as one of the four alternatives under it. There is some relationship between the word and the word to come in place of A on the left of the sign (: :). The same relationship obtains between the word and the word to come in place of B to the right of the sign (: :). The two words to take the places of A and B are given as one of the four alternatives under it. Find the correct alternative in each case and mark it on the answer-sheet as instructed.

6. penicillin : A : : B : disease
(1) A. life B. death
(2) A. medicine B. bronchitis
(3) A. life B. bronchitis
(4) A. medicine B. death
7. A : light : : B : sun
(1) A. darkness B. night
(2) A. curtain B. cloud
(3) A. heavy B. heat
(4) A. morning B. evening
8. A : canine : : B : bovine
(1) A. dog B. lion
(2) A. cow B. calf
(3) A. wolf B. bull
(4) A. dog B. cat

9. A : ugly : : peace : B
(1) A. homely B. friendly
(2) A. pretty B. treaty
(3) A. homely B. strike
(4) A. pretty B. war
10. A : power : : carriage : B
(1) A. handle B. horse
(2) A. electricity B. handle
(3) A. motor B. horse
(4) A. driver B. motor

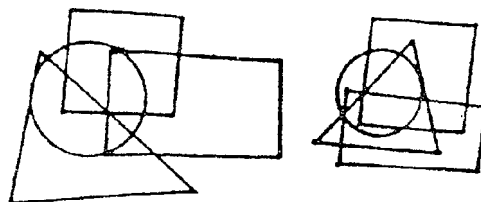
Qs. 11-15. Below are given five diagrams marked A, B, C, D and E in each of which:

-  (square) stands for 'Tactful'
-  (circle) stands for 'Industrious'
-  (triangle) stands for 'Sincere'
-  (rectangle) stands for 'Optimistic'



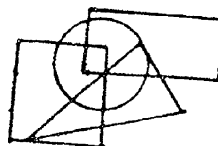
(A)

(B)



(C)

(D)



(E)

Three persons P, Q and R are identified to be having some or all the above characteristics which are not the same for all the three and may be different for the same person in different questions. You have to examine each diagram and see if it can accommodate all the three persons with all the characteristics mentioned against each. The diagram(s) satisfying these conditions will be the answer to that question as given in one of the four alternatives in the question. Mark it on the answer-sheet as instructed.

11. P—Tactful, Industrious, Sincere, Optimistic
Q—Sincere, Optimistic
R—Tactful, Sincere, Optimistic
(1) A, B (2) B, D
(3) A, C (4) C, D
12. P—Tactful, Industrious, Optimistic
Q—Industrious, Sincere, Optimistic
R—Tactful, Industrious, Sincere
(1) C, E (2) C, D
(3) A, D (4) B, C
13. P—Tactful, Industrious
Q—Industrious, Sincere
R—Industrious, Optimistic
(1) A, C, D (2) A, D, E
(3) B, C, D (4) C, D, E
14. P—Tactful, Industrious, Sincere, Optimistic
Q—Tactful, Industrious, Optimistic
R—Industrious, Sincere, Optimistic
(1) A, C (2) A, D
(3) B, C (4) A, B
15. P—Tactful, Optimistic
Q—Industrious, Sincere
R—Tactful, Industrious, Optimistic
(1) B, C, D (2) A, B, D
(3) A, B, C (4) C, D, E
16. If $A + C = 25$, $B + C = 23$, $A + B = 28$ and $A + D = 2C$, then
(1) $B > D > C > A$
(2) $A > C > D > B$
(3) $B > A > C > D$
(4) $A > B > C > D$
17. Three hundred candidates have applied for a job. Twenty of these are over-age and thirty-five are unqualified. What is the minimum possible number of ineligible candidates?
(1) 15 (2) 20
(3) 35 (4) 55
18. In a queue A is 26th from the back while B is 16th from the front and C is mid-way between the two. If there be 10 persons ahead of C, what position does he occupy from the back?
(1) 20th (2) 21st
(3) 22nd (4) 23rd
19. Ramesh is to the right of Kamla while Mahesh is to the left of Shyam. If Mary is to the left of Kamla and Ahmad is between Mary and Shyam, who is on the extreme right?

- (1) Kamla (2) Mahesh
(3) Ramesh (4) Shyam

20. If the sum of the ages of A and B is more than the sum of the ages of C and D and the sum of the ages of A and D is equal to that of the ages of B and C, then which one of the following statements is definitely true?

- (1) A is older than C
(2) A is older than D
(3) A is older than B
(4) C is older than D

21. I am facing South. I turn through an angle of 135° in the anti-clockwise direction and then turn through an angle of 270° in the clockwise direction and finally I turn through 45° in the anti-clockwise direction. Which direction am I facing now?

- (1) East (2) West
(3) North (4) South

22. A, B, C and D play a game of cards. A says to B, "If I give you five cards, you will have as many as C has and if C takes two cards from me, he will have as many as D has." If A has twice as many cards as D has and B and C together have three cards more than what D has, how many cards has B got?

- (1) 5 (2) 10
(3) 12 (4) 24

23. In an office there are as many four-legged chairs and as many four-legged tables as workers and as many three-legged stools as four-legged almirahs. If the number of stools be one more than the number of workers and the total number of legs be 585, the number of workers is:

- (1) 34 (2) 17
(3) 16 (4) cannot be found

24. A bus covers 120 km with an average speed of 40 km/hr. On the return journey it covers the same distance with an average speed of 60 km/h. What is the average speed for the entire journey?

- (1) 48 km/hr (2) 50 km/hr
(3) 52 km/hr (4) 54 km/hr

25. Raju can do some work in 40 days. Raman is 60% more efficient than Raju. How many days are required for Raman to complete the work?

- (1) 16 (2) 24
(3) 25 (4) 64

Qs. 26-30. From amongst seven women, A, B, C, D, E, F, G and eight men P, Q, R, S, T, U, V, W some teams are to be selected under the conditions given below. Of these fifteen persons A, B, E, R, S, U are doctors, C, D, P, Q are lawyers and the rest are teachers.

- A, D and T have to be together.
- B and P have to go together.
- T cannot go with V.
- C and Q have to be together.
- P cannot go with G.
- E and U have to go together.
- V and W have to be together.

F and R have to go together.

V cannot go with D or R.

26. If the team is to consist of two male doctors, two lawyers and two teachers, the members of the team are:

- (1) CFGQRS (2) CFQRSU
(3) CDRSVW (4) CFQRVW

27. If the team consists of three doctors, two lawyers and three teachers, the members of the team are:

- (1) CEGQSUVW
(2) CEFQRUVW
(3) ABDFGPRT
(4) ABDPSTVW

28. If the team has seven members of whom two are lawyers, two female teachers and the rest are doctors, the team consists of:

- (1) CDFGPRS
(2) BEFGPQR
(3) ABFGPQR
(4) CEFQURU

29. If the team consists of three doctors, three lawyers and two male teachers, the members of the team are:

- (1) ABCDFPTU
(2) BCEPQUVW
(3) BCEFGPQR
(4) CDEPRSVW

30. If the team consists of one lady doctor, one male lawyer and two male teachers, the members of the team are:

- (1) APVW (2) BPVW
(3) EPVW (4) BPTW

Qs. 31-40. Below are given some data on an examination in which Papers I and II were compulsory for all while in the third paper the candidate had the option to appear for any one of the three disciplines of Mechanical, Electrical and Civil Engineering. Study the data carefully and then answer the questions given below it.

| | |
|----------------------------------|-------|
| Total no. of candidates | 10868 |
| Passed in all papers | 2250 |
| Passed in at least two papers | 6801 |
| Failed in Paper I | 5194 |
| Failed in Paper II | 4011 |
| Failed in Mechanical Engineering | 1495 |
| Failed in Electrical Engineering | 1225 |
| Failed in Civil Engineering | 1492 |

Disciplinewise break-up of those who failed in all the papers:

| | |
|------------------------|-----|
| Mechanical Engineering | 242 |
| Electrical Engineering | 210 |
| Civil Engineering | 280 |

31. How many passed in at least one paper?

- (1) 4067 (2) 5674
(3) 8618 (4) 10136

32. How many passed in one paper only?

- (1) 3335 (2) 4067

- (3) 5674 (4) 8618

33. If 893 passed in Paper I only, how many passed in Paper I and at least one more paper?

- (1) 1607 (2) 3424
(3) 4781 (4) 5908

34. If 1262 passed in Paper III only, how many passed in Paper I and Paper II?

- (1) 1663 (2) 2925
(3) 3657 (4) 4389

35. If of the 3530 candidates who appeared in Mechanical Engineering 315 passed in this subject only, how many passed in Mechanical Engineering and at least one more subject?

- (1) 1303 (2) 1720
(3) 2035 (4) 2452

36. How many passed in any two papers but failed to clear the examination?

- (1) 4551 (2) 4781
(3) 5394 (4) 5677

37. If 2020 candidates failed in paper I but passed in the other two papers, how many failed to clear the examination because of having failed in either of the other two papers?

- (1) 1720 (2) 2531
(3) 4551 (4) 5781

38. If 530 Electrical Engineering candidates passed in Paper I or Paper II but not in both, how many of these candidates failed because of having failed in Electrical Engineering only?

- (1) 485 (2) 493
(3) 695 (4) 1015

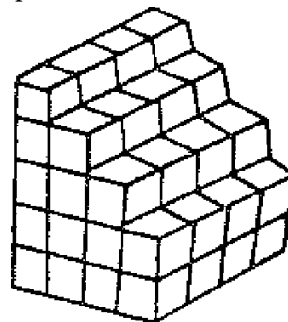
39. If of the 4084 candidates who appeared in Civil Engineering 830 could clear the examination, how many failed because of having failed either in Paper I or Paper II or in both?

- (1) 1077 (2) 1238
(3) 1309 (4) 1762

40. If 3144 candidates failed either in Paper I or in Paper II but not in both and passed in Paper III, how many failed in the third paper only?

- (1) 3657 (2) 2250
(3) 1503 (4) 1407

Qs. 41-45. A pile of cubes of equal size is arranged as shown in the figure. The flat tops of the pile are coloured black while all the upright sides are coloured white. The bottom of the pile is not coloured at all.



41. How many cubes are there in the pile?
 (1) 52 (2) 56
 (3) 60 (4) 64
42. How many cubes are without any colour?
 (1) 0 (2) 6
 (3) 10 (4) 12
43. How many cubes are coloured on one face only?
 (1) 6 (2) 12
 (3) 20 (4) 24
44. How many cubes are coloured white on two faces each?
 (1) 6 (2) 18
 (3) 26 (4) 30
45. How many cubes are coloured white on one face each and do not have any other coloured face?
 (1) 20 (2) 28
 (3) 26 (4) 36

Qs. 46-50. In each of the following questions three words are given which are related in some way. The same relationship obtains among the three words in one of the four alternatives given under it. Find the correct alternative in each case and mark your answer on the answer-sheet as instructed.

46. Carnivorous, tiger, wolf
 (1) cat, cow, milk
 (2) mango, banana, fruit
 (3) student, boy, girl
 (4) worker, master, manager
47. Solar system, earth, planet
 (1) orange, fruit, citrus
 (2) poem, poetry, music
 (3) page, book, word
 (4) seed, fruit, plant
48. Nurse, woman, doctor
 (1) maid, wife, mother
 (2) soldier, army, engineer
 (3) patient, attendant, staff
 (4) knife, scissors, doctor
49. Researcher, historian, scholar
 (1) teacher, professor, lecturer
 (2) history, story, book
 (3) epic, novel, book
 (4) teacher, graduate, poet
50. Book, novel, drama
 (1) wheat, rice, cereals
 (2) mother, sister, aunt
 (3) boy, girl, student
 (4) captain, major, sepoy
51. If 'PROUD' is written as 'CLMNF' and 'WHITE' is written as 'BGPQY', what may stand for 'THOUGHT' in the same code?
 (1) Q G M N C G Q
 (2) Q G N M D G Q
 (3) Q G M N D G Q
 (4) Q G N M F G Q

52. If 'DELIVER' is written as 'SDWHMDE', how is 'SEPARATE' written in the same code?
 (1) F S B Q B O F R
 (2) F U B S B Q F T
 (3) D S Z Q Z O D R
 (4) D U Z S Z Q D T
53. If 'QUESTION' is written as 'FGPLMDRT' and 'MOVEMENT' is written as 'NRYPNPTM', what may stand for 'ADEQUATE' in the same code?
 (1) R L P F G R M P
 (2) S H P F G S M P
 (3) D T F P R G P M
 (4) G N P F G S M P
54. If 'BRIEF' is written as 'DPKCH', how is 'CLUSTER' written in the same code?
 (1) E J S U R G P
 (2) A N S U R G P
 (3) E J W U R G P
 (4) E J W Q V C T
55. If 'NATION' is written as 'ANGVBA', how is 'PRESERVE' written in the same code?
 (1) C D P G P D J P
 (2) B D Q E Q D H Q
 (3) D F S G S F J S
 (4) C E R F R E I R
56. If 'CLOUD' is written as 'AROIZ', how will 'BREATH' be written in that code?
 (1) B L Y C J V
 (2) Z L C C M G
 (3) A S D Z U G
 (4) G U B F S C
57. If 'NUMBER' is written as 'PSOZGP', how will 'BLOOD' be written in that code?
 (1) Z J M M B
 (2) Z N M Q B
 (3) D J Q M F
 (4) D N Q Q F
58. If 'PROHIBIT' is written as 'ILSRYRGK', how will 'SISTER' be written in that code?
 (1) G Q G F U H
 (2) R H G V I H
 (3) I V G H R H
 (4) T J T U F S
59. If 'TRUTH' is written as 'IFGSG', how will 'ROAST' be written in that code?
 (1) L Z H G I
 (2) Q P Z R S
 (3) S P B T U
 (4) Z H I L G
60. If 'QUEST' is written as 'FVHGJ', how is 'CLAIM' written in that code?
 (1) Z R N X O
 (2) Z O N X R
 (3) N O Z R X
 (4) O Z R N X

ANSWERS AND EXPLANATIONS

1. (4) Two of the things have a common quality, light/fragrance.
2. (4) One is a base for the other.
3. (2) They have the pair and their youngone relationship.
4. (1) The relationship is that of shoot : cut : pierce.
5. (3) Like aeroplane, balloon flies in air, car and truck have the same relationship as boat and ship.
6. (2) They have the general category and specific item relationship.
7. (2) One obstructs the full brightness of the other.
8. (3) They have the species and the particular creature relationship.
9. (4) The words are opposites. 10. (3) One drives the other.
11. (2) 12. (1) 13. (4) 14. (1) 15. (3)
16. (4) A = 15; B = 13; C = 10; D = 5.
17. (3) Twenty out of the thirty five unqualified could be over-age.
18. (2)
19. (3) The arrangement is (L) Mahesh : Shyam : Ahmad : Mary : Kamla : Ramesh. (R)
20. (1)
21. (2)
22. (1) A has 24, B has 5, C has 10 and D has 12.
23. (1) Chairs $34 \times 4 = 136$ legs; Tables $34 \times 4 = 136$ legs
Workers $34 \times 2 = 64$ legs; Stools $35 \times 3 = 105$ legs
Almirahs $35 \times 4 = 140$ legs. Total 585 legs
24. (1) 120 km in 3 hours @ 40 kph
120 km in 2 hours @ 60 kph
i.e. 240 km in 5 hours = 48 km per hour
25. (2) 26. (1) 27. (1) 28. (4) 29. (4) 30. (2)
31. (4) $10868 - (242 + 210 + 280)$
32. (2) $10868 - 6801$ (Passed in atleast two papers)
33. (3) $10868 - 5194$ (Failed in paper I) = 5674 (Passed in paper I)
 $5674 - 893$ (Passed in Paper I only) = 4781
34. (3) Passed in paper III $10868 - (1495 + 1225 + 1492) = 6656$
 $6656 - 1262$ (only III) = 5394 - 2250 (All papers) = 3144 (Engineering + I/II)
Passed in two papers $6801 - 3144 = 3657$
35. (2) $3530 - (1495 + 315) = 1720$
36. (1) 6801 (Passed in two papers or more) - 2250 (Passed) = 4551
37. (3) $6801 - 2020 = 4551$
38. (1) Total Electrical Engineers who failed 1225
210 failed in all subjects $1225 - 210 = 1015$
 $1015 - 530$ (who failed in Electrical Engineering only) = 485
39. (4) Appeared 4084. Passed 830, Failed $4084 - 830 = 3254$
Failed in Civil Engineering 1492
 $3254 - 1492 = 1762$

40. Arrangement—No colour = 10; W = 20; W + B = 6; W + W = 10; W + W + B = 8; W + W + W + B = 2. Total = 56
 41. (2) 42. (3) 43. (3) 44. (2) 45. (1)
 46. (2) Two of the given items are members of the third one.
 47. (1) Earth is a planet which is a member of solar system, orange is a citrus fruit.
 48. (1) One is or could be common in the other two.
 49. (3) Same as above.
 50. (3) Novel and drama, both are books, just as boy and girl both are student.
 - 51-60. *It is always better to write the alphabets and number them. This helps in finding out the sequence.*
- | | | | | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P |
| 26 | 25 | 24 | 23 | 22 | 21 | 20 | 19 | 18 | 17 | 16 | 15 | 14 | 13 | 12 | 11 |
-
- | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|
| 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| Q | R | S | T | U | V | W | X | Y | Z |
| 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
51. (3) Match common letter codes.
 52. (1) Write the words in reverse order and see what arrangement of code follows, R, V, L ... next letter and in the rest, the preceding letter.
- DELIVER—REVELED SEPARATE—ETARAPES
SDWHMDE FSBQBOFR
53. (2) Same as question no. 51.
 54. (4) One letter is skipped, left then right.
 55. (4) Write the alphabets as given below, codes are above or below each letter.
- | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | B | C | D | E | F | G | H | I | J | K | L | M |
| N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
56. (1)

| | | | | |
|------|-------|-------|-------|------|
| 3, C | 12, L | 15, O | 21, U | 4, D |
| X | O | L | F | W |
- ← Same numbers from Z
- | | | | | |
|-------|-------|-------|-------|-------|
| (YZ)A | (PQ)R | (MN)O | (GH)I | (XY)Z |
|-------|-------|-------|-------|-------|
- Skip two letters
- Hence
- | | | | | | |
|-------|-------|-------|-------|-------|-------|
| 2, B | 18, R | 5, E | 1, A | 20, T | 8, H |
| Y | I | V | Z | G | S |
| (ZA)B | (JK)L | (WX)Y | (AB)C | (HI)J | (TU)V |
57. (3) Same as 54.
 58. (2) Take the first letter to the end and the code is number of the letter starting from Z.
- | | | | | | | | | | | | | | |
|----|----|---|---|---|---|----|----|---|----|----|---|----|----|
| R | O | H | I | B | I | T | P | I | S | T | E | R | S |
| 18 | 15 | 8 | 9 | 2 | 9 | 20 | 16 | 9 | 19 | 20 | 5 | 18 | 20 |
| I | L | S | R | Y | R | G | K | R | H | G | V | I | H |
59. (1) Exactly like question no. 58.
 60. (4) The code pattern is the same as in question no. 58.
- | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| U | E | S | T | Q | L | A | I | M | C |
| F | V | H | G | J | O | Z | R | N | X |
- Note:-* For these questions if you find the number system complicated, you can write the alphabets backwards.
- | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
| Z | Y | X | W | V | U | T | S | R | Q | P | O | N | M | L | K | J | I | H | G | F | E | D | C | B | A |

Test of Reasoning-1

Solved Paper of Staff Selection Commission Examination—2000

1. If 'A + B' means 'A' is the mother of 'B', 'A - B' means 'A' is brother of 'B', 'A ÷ B' means 'A' is father of 'B' and 'A × B' means 'A' is sister of 'B', which of the following means 'P' is uncle of 'Q'?

- (A) $Q - N + M \times P$
- (B) $P \div S \times N - Q$
- (C) $P - M + N \times Q$
- (D) $Q - S \div P$

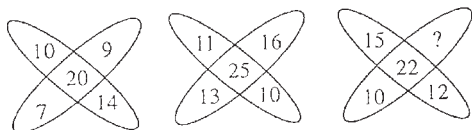
2. Some equations are solved on the basis of certain system. On the same basis find the answer for the unsolved equation.

$$a = 11 (158) 14, b = 17 (225) 13, c = 15 (?) 12$$

- (A) 180
- (B) 166
- (C) 184
- (D) 174

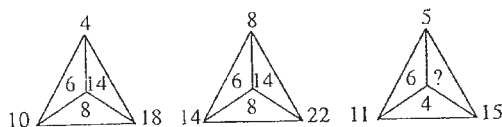
Directions: In question Nos. 3 to 4 select the missing number from the given responses.

3.



- (A) 6
- (B) 7
- (C) 8
- (D) 9

4.



- (A) 8
- (B) 14
- (C) 10
- (D) 6

5. At every fortyfive minutes a train crosses the Maharaja Gate. Just 15 minutes ago one train crossed the gate and the next will be crossing by 9.45 am. What is time now?

- (A) 9.30 am
- (B) 9.00 am
- (C) 10.00 am
- (D) 9.15 am

6. Sathish can type 500 words in 10 minutes and Divya can type 400 words in 10 minutes. In how many minutes they can together type 3600 words?

- (A) 40 minutes
- (B) 60 minutes
- (C) 45 minutes
- (D) 38 minutes

7. The age of the mother today is thrice as that of her daughter. After twelve years the age of the mother will be twice of her daughter. What is the age of the daughter today?

- (A) 18 years
- (B) 16 years
- (C) 14 years
- (D) 12 years

8. In a cricket match X, Y and Z together score 108 runs, Y and Z together 90 and X and Z together 51. Find the number of runs scored by each.

- (A) 18, 57, 33
- (B) 19, 56, 33
- (C) 17, 58, 33
- (D) 15, 60, 33

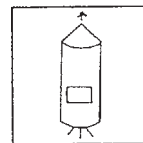
9. Rahul places a watch on a table so that the hour hand points towards north at six pm. On what direction will the minute hand point at 9.15 pm?

- (A) South east
- (B) South
- (C) North
- (D) West

10. Six persons A, B, C, D, E and F are sitting in a row. B is between F and D, E is between A and C. A is next to neither F nor D. C does not sit next to D. F is between which of the following two persons?

- (A) A and C
- (B) C and D
- (C) A and B
- (D) C and B

11. A rocket has a number plate on it reading 98689. When the rocket is moving vertically downwards, how does the number appear?



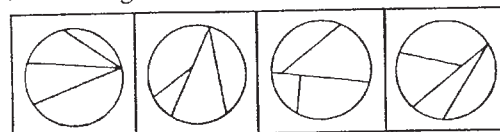
- (A) 98689
- (B) 68689
- (C) 68989
- (D) 68986

Directions: In question No. 12, among the four answer figures which one can be formed from the cut out pieces given below?

12.

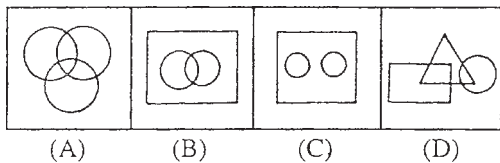


Answer Figures



(A) (B) (C) (D)

13. Which of the following represent the statement that some of the psychologists are philosophers. Some philosophers are writers. But no psychologist is a writer.



Directions: Question Nos. 14 to 15. One statement is given followed by two assumptions I and II. You have to consider the two statements to be true even if they seem to be at variance from commonly known facts. Which one of the given responses is correct?

14. **Statement:** The people are advised not to touch electric switches with wet hand.

Assumptions: I. People do not pay attention to such advices.

II. Touching electric switches with wet hand is dangerous.

- (A) Only I follows.
(B) Only II follows.
(C) Both I and II follow.
(D) Neither I nor II follow.

15. **Statement:** Poverty is a symptom and consequence of social disorder.

Assumptions: I. Poverty is a social disorder.
II. Poverty is related to social disorder.

- (A) Only I follows.
(B) Only II follows.
(C) Both I and II follow.
(D) Neither I nor II follow.

16. Following a Question, Statements I and II are given. Which one of the four alternatives is correct?

Question: Can the lack of stimulation in the first four or five years of life have adverse consequences on the development of intelligence?

Statements: I. 50 per cent of the measurable intelligence is predictable at the adolescence period.

II. A great part of the development of observed intelligence occurs in the earliest years of life.

- (A) Only I is sufficient to answer the question.
(B) Only II is sufficient to answer the question.
(C) Both I and II are needed to answer the question.
(D) Both I and II are not sufficient to answer the question.

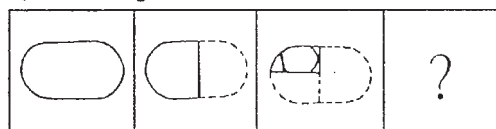
17. Two statements I and II are given followed by four responses. Which one of the responses can be inferred from the given statements?

Statements: I. Spices prevent blood cancer.
II. Americans dislike spices.

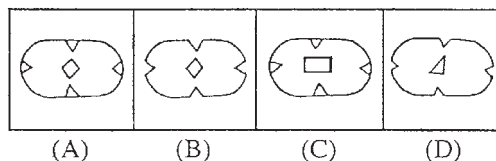
- (A) Higher rate of blood cancer is found in Americans.
(B) Indian food is spicy.
(C) Spices cure all diseases.
(D) American food is spicy.

Directions: Question No. 18. A paper is folded as shown in the given figures and a hole is made. When opened how will it appear? Choose from the given responses.

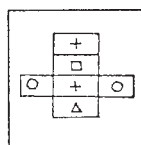
18. Question Figures



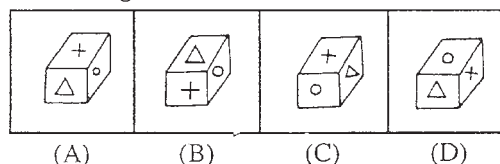
Answer Figures



19. The following is folded in the shape of a cube. What will be its shape after folding? Find out from the given alternatives.

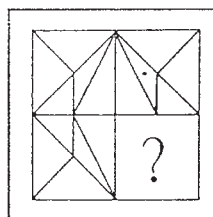


Answer Figures

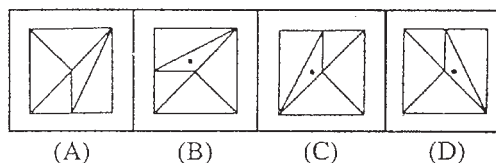


Directions: Question Nos. 20 to 21. Which answer figure will complete the question figure?

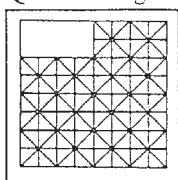
20. Question Figure



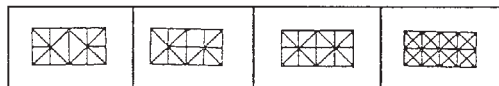
Answer Figures



21. Question Figure



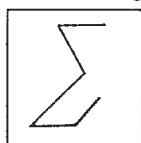
Answer Figures



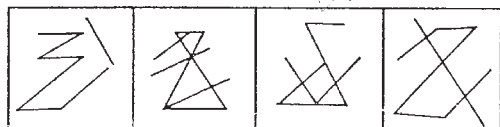
(A) (B) (C) (D)

Directions: Question No. 22. In which answer figure is the question figure embedded?

22. Question Figure



Answer Figures



(A) (B) (C) (D)

Directions: Question No. 23. Which answer figure is embedded in the question figure?

23. Question Figure



Answer Figures



(A) (B) (C) (D)

24. Observe the following series and find out the rule and apply the same in identifying the next letter.

W Z C F —

- (A) G (B) H
(C) J (D) I

25. Rule: Number of letters skipped in between adjacent letters in the series are in the order of 2, 6, 10.

Which of the following series observe this rule.

- (A) CFMX (B) FIPZ
(C) DGMV (D) BDKU

Directions: In question Nos. 26 to 27, select the related word/figure from the given alternatives.

26. Thermometer : Temperature :: ?

- (A) Millimeter : Scale
(B) Solar energy : Sun
(C) Clock : Time
(D) Weight : Weighing Scale

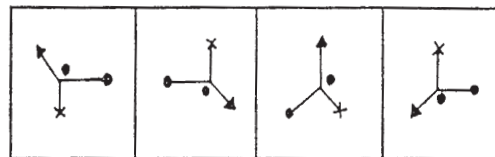
27. Well : Depth :: Word : ?

- (A) Meaning (B) Sentence
(C) Syllable (D) Height

Directions : Question Nos. 28 to 34. Find the odd one out from the given alternatives.

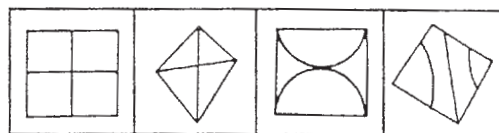
28. (A) Eagle (B) Cock (C) Crow (D) Parrot
29. (A) River (B) Brook (C) Stream (D) Lake
30. (A) PKJQ (B) RIGT (C) WDBY (D) FUSH
31. (A) 12-54 (B) 32-136 (C) 52-214 (D) 24-102
32. (A) 26-124 (B) 36-126 (C) 46-128 (D) 56-112

33.



(A) (B) (C) (D)

34.



(A) (B) (C) (D)

Directions: Question Nos. 35 to 38. Find the related word/letters/numbers/figure to complete the Analogy.

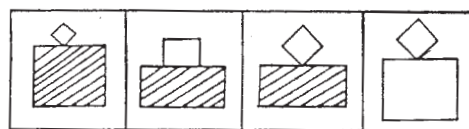
35. 13 : 93 :: 17 : ?

- (A) 51 (B) 39 (C) 31 (D) 15

36. 256 : 12 :: 225 : ?

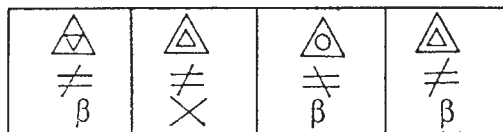
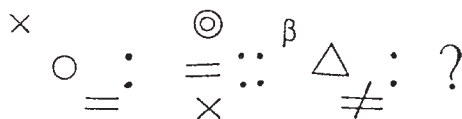
- (A) 13 (B) 11 (C) 10 (D) 9

37.



(A) (B) (C) (D)

38.



(A) (B) (C) (D)

Directions: Question Nos. 39 to 40. Which one of the given responses would be a meaningful order of the following words?

39. 1. Rock 2. Hill 3. Mountain
4. Range 5. Stone

- (A) 1, 3, 4, 2, 5
(B) 5, 1, 2, 3, 4
(C) 4, 3, 2, 5, 1
(D) 5, 2, 3, 4, 1

40. 1. Sapling 2. Seed 3. Tree
4. Plant 5. Branches

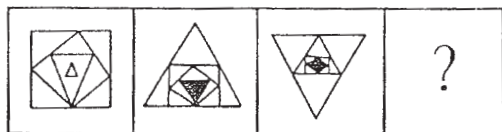
- (A) 1, 2, 3, 4, 5
(B) 2, 1, 4, 3, 5
(C) 5, 3, 2, 1, 4
(D) 4, 2, 1, 3, 5

Directions: Question No. 41. An equation is solved on the basis of a certain system. On the same basis find out the correct answer from amongst the four alternatives for the unsolved equation in the question.

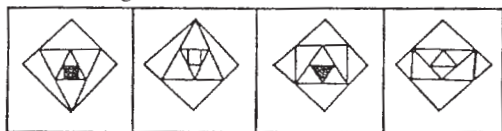
41. 836 (316) 112, 213 (?) 420
(A) 211 (B) 124 (C) 325 (D) 432
42. Which one term is wrong in the given series?
196, 169, 144, 121, 100, 80, 64.
(A) 169 (B) 196 (C) 80 (D) 64

Directions: Question Nos. 43 to 44. Find the missing figure in the series from the given answer figures.

43. Question Figures

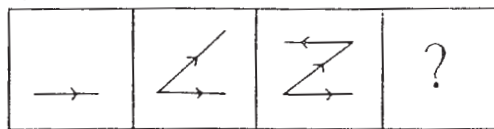


Answer Figures

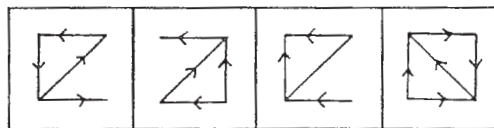


(A) (B) (C) (D)

44. Question Figures

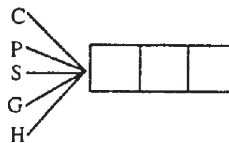


Answer Figures



(A) (B) (C) (D)

45. Choose the missing last three letters from the alternatives which are common to all the five letters.



- (A) AND (B) OIL
(C) AVE (D) INO

Directions: Question No. 46. From the given alternatives, find the word which cannot be formed from the letters used in the given word.

46. AUTOBIOGRAPHY
(A) TOPOGRAPHY (B) ROGUE
(C) GROUP (D) THOROUGH

47. In a certain code RESCUE is written as 372057 and PROBLEM as 9348176 and how is PROCURE written in that code?

- (A) 9340537 (B) 9340357
(C) 3840537 (D) 3904537

48. If in a code language 'MUSIC' is written as 'XVQYW' and 'USAGE' is written as 'VQZJF', then how can 'CAUSE' be written?

- (A) WZQVF (B) WZVQF
(C) WVZQF (D) WVQZF

Directions: Question Nos. 49 to 50. In the following question you have to identify the correct response from the given premises stated according to following symbols.

49. 'A' stands for 'equal to'
'B' stands for 'less than'
'C' stands for 'greater than'
'D' stands for 'not greater than'
'E' stands for 'not equal to'
'F' stands for 'not less than'

Premises ($x D 2y$) and ($2y A 3z$)

- (A) $x D 3z$ (B) $x A 3z$
(C) $x E 3z$ (D) $x C 3z$

50. 'A' stands for 'equal to'

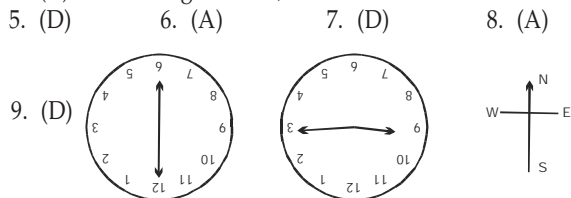
'B' stands for 'less than'
'C' stands for 'greater than'
'D' stands for 'not greater than'
'E' stands for 'not equal to'
'F' stands for 'not less than'

Premises ($5x \leq 4y$) and ($2x < 3y$)

- (A) $5x < 3y$ (B) $5x < 3y$
(C) $5x < 3y$ (D) $5x < 3y$

ANSWERS AND EXPLANATIONS

1. (C) M is P's sister and N and Q are her children as N is the sister of Q.
2. (C) Multiply the numbers on the right and left of the brackets and add 4, hence $15 \times 12 + 4 = 180 + 4 = 184$.
3. (B) The number in the centre is half of the total of four numbers around it, $15 + 10 + 12 + 7 = 44$; $44 \div 2 = 22$.
4. (C) The arrangement is, $6 + 4 = 10$ and $15 - 5 = 10$.
5. (D)



9. (D) 10. (D) Either AECFBD or DBFCEA.
11. (D) 12. (D) 13. (D) 14. (B)

15. (B) 16. (D) 17. (A) 18. (A)
19. (C) 20. (C) 21. (C) 22. (C)
23. (C)
24. (D) Letters have a gap of two letters between them.
25. (A) 26. (C) 27. (A)
28. (B) It is a domestic bird.
29. (D) All the others have flowing water.
30. (A) The gap among letters is different.
31. (B) The arrangement is $(\text{number} \times 4) + 6$.
32. (D) Moving downwards, the first numbers have gap of 10 and the second one, the gap of 2.
33. (C) 34. (D)
35. (D) Multiply the first number by 3 and reverse the digits, i.e., $13 \times 3 = 39$, 93 ; $17 \times 3 = 51$, 15 .
36. (B) $16^2 : 16 - 4 :: 15^2 : 15 - 4$.
37. (C) 38. (D) 39. (B) 40. (B)
41. (A) $(213 + 420) \div 3$, i.e. $\frac{633}{3} = 211$.
42. (C) The series is $14^2, 13^2, 12^2, 11^2, 10^2, 9^2, 8^2$.
43. (A) 44. (A) 45. (C) 46. (B)
47. (A) 48. (B)
49. (A) Either $x = 2y$ or $x < 2y$
 $2y = 3z$
 \therefore Either $x = 3z$ or $x < 3z$
50. (B) Either $5x > 4y$ or $5x < 4y$
 $2x > 3y$
 $\therefore 5x > 3y$

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Test of Reasoning-2

Qs. 1-7. Find the odd-man out.

1. (1) rhea (2) penguin (3) albatross
(4) emu (5) ostrich
2. (1) Agra (2) Jabalpur (3) Patna
(4) Bhopal (5) Surat
3. (1) Keats (2) Ghalib (3) Prem Chand
(4) Tennyson (5) Mahadevi Verma
4. (1) tennis (2) badminton (3) hockey
(4) foot-ball (5) cricket
5. (1) triangle (2) ellipse (3) rhombus
(4) hexagon (5) parallelogram
6. (1) assailable (2) susceptible (3) vulnerable
(4) accessible (5) perceptible
7. (1) Dehradun (2) Panipat (3) Kalinga
(4) Kargil (5) Haldighati

Qs. 8-12. In each of the following questions, two words are given that have a certain relationship between them. You have to find out from the given options the word that would have the same relationship with the word given before the question mark.

8. sun : warmth :: vehicles : ?
(1) speed (2) road (3) transportation
(4) petrol (5) smoke
9. bandit : law :: truant : ?
(1) school (2) attendance (3) discipline
(4) proxy (5) class
10. distance : mile :: temperature : ?
(1) degree (2) heat (3) thermometer
(4) isotherm (5) weather
11. mechanic : spanner :: painter : ?
(1) colour (2) model (3) brush
(4) canvas (5) picture
12. spectacles : sight :: stick : ?
(1) punishment (2) cane (3) support
(4) walk (5) old-age

Qs. 13-17. In each of the following questions four pairs of words are given. In three of the pairs the two words have similar relationship while one is different. Your task is to find this odd-man out.

13. (1) galaxy : star (2) ocean : drop
(3) forest : tree (4) flower : leaf
14. (1) rhombus : triangle (2) square : pentagon
(3) octagon : polygon (4) hexagon : heptagon
15. (1) barometer : atmospheric pressure
(2) clock : time (3) lactometer : milk
(4) rainfall : rain-gauge
16. (1) river : Brahmaputra (2) bird : sparrow
(3) building : Taj Mahal (4) country : Moscow
17. (1) tailor : needle (2) grocer : balance

(3) black-smith : hammer (4) writer : pen

18. If AFRICA is coded as ZGQJBB, then the code for EUROPE would be:

- (1) DVSPQF (2) DVQPOF (3) DVQNQF
(4) DVSPQD (5) DVPPQD

19. If REMAINS is coded as 1 2 3 4 5 6 7 and SCORE as 78912 then the code for NORMANS would be:

- (1) 694578 (2) 5893267 (3) 6913458
(4) 7863278 (5) 6913467

Qs. 20-25. In each of the question given below a word is given. (1), (2), (3), (4), (5) and (6) are codes for letters occurring in the question, but not in the same order. The same code has been adopted for all the words given in the questions. Identify the code for letters enclosed in box:

20. S T R I K E
(1) z (2) m (3) d (4) w (5) x (6) j
21. B E L O N G
(1) y (2) q (3) c (4) z (5) u (6) v
22. G R A P E S
(1) n (2) d (3) z (4) g (5) w (6) q
23. B R I G H T
(1) w (2) q (3) f (4) m (5) c (6) x
24. L O C A T E
(1) y (2) m (3) z (4) v (5) g (6) k
25. P L I G H T
(1) x (2) m (3) v (4) n (5) q (6) f

Qs. 26-30 are based on the series of symbols, letters and numbers given below:

Δ 4 N Z 5 R □ E 6 H 9 □ 7 K D Δ G □ 2 P Q Δ M 3 T □ C 8

26. How many letters in the series are preceded by a symbol and followed by a number?

- (1) 1 (2) 2 (3) 3 (4) 4 (5) 5

27. If the letters in the series are arranged in an alphabetical order, how many letters will remain at their place as such?

- (1) 2 (2) 3 (3) 4 (4) 5 (5) 6

28. How many symbols have either letters or numbers on both the sides?

- (1) 2 (2) 3 (3) 4 (4) 5 (5) 6

Which sets in the series given in questions 29 and 30 are wrong?

29. 4Z5 □EH □7K G □P Δ MT
(1) (2) (3) (4) (5)
30. C8T3 Δ MP2 G □DK □7H6 □ER5
(1) (2) (3) (4) (5)

Qs. 31 and 32 are based on the word ANTIBIOTICS.

31. How many sets of two letters each have as many letters between them (forward or backward) as they have in the alphabetical order?

(1) 1 (2) 2 (3) 3 (4) 4 (5) 5
 32. If the first four letters are written in reverse order, followed by three letters in reverse order and then the remaining four in reverse order, how many letters will be there between N and C?

- (1) 5 (2) 3 (3) 4 (4) 6 (5) 7

Qs. 33 and 34. A student has put his eight subject books one on top of the other.

Hindi book is between Chemistry and Physics books.

Geography book is two books above History book.

No two language books are together.

English text-book is above history and just below Maths book.

Sanskrit text-book is above Physics.

33. Which text-book is at the top?

- (1) Chemistry (2) Sanskrit (3) Geography
 (4) Maths (5) Physics

34. Which book is third from the bottom?

- (1) Physics (2) English (3) Hindi
 (4) History (5) Maths

Qs. 35 and 36. Seven villages A, B, C, D, E, F and G are situated as follows:

E is 2 km to the west of B.

F is 2 km to the north of A.

C is 1 km to the west of A.

D is 2 km to the south of G.

G is 2 km to the east of C.

D is exactly in the middle of B and E.

35. Which two villages are the farthest from one another?

- (1) F and E (2) C and B (3) G and E
 (4) D and C (5) F and B

36. How far is E from F as the crow flies? (in km)

- (1) $\sqrt{3^2 + 4^2}$ (2) $\sqrt{2^2 + 4^2}$ (3) 4 km
 (4) 5 km (5) $\sqrt{1^2 + 5^2}$

Qs. 37 and 38. Mr Z went for a 6 km walk. For each next km he took 2 minutes more as compared to the km he covered before it. If he took exactly 2 hours in reaching the end of his walk:

37. How much time did he take in reaching the end of first km?

- (1) 12 mts (2) 15 mts (3) 20 mts
 (4) 10 mts (5) 14 mts

38. At what time did he reach the end of fourth km if he started at 9 A.M.?

- (1) 10.30 (2) 9.55 (3) 10.12
 (4) 10.15 (5) 10.20

39. In a family, Keshav is Roli's father, Shakuntala is Mini's grandmother, Reeta is Shakuntala's daughter-in-law and Mini is Roli's sister. Then Keshav is Reeta's:

- (1) husband (2) brother (3) father
 (4) son (5) father-in-law

40. In a market, there are 35 shops in a row. Damodar's shop is 15th from the east end and Nathu's 26th from the west

end. How many shops are there between these two shops?

- (1) 4 (2) 5 (3) 7 (4) 9 (5) 11

SYLLOGISMS

In each question given below, two statements are given followed by four conclusions numbered I, II, III and IV. You have to take the two given statements to be true even if they appear at variance with commonly known facts. Read all the conclusions and then decide which of them logically follow from the statements given, disregarding commonly known facts.

Statements:

41. 1. Some stones are minerals.
 2. All plants are stones.

Conclusions:

- I. All stones are plants.
 II. Some plants are minerals.
 III. All minerals are stones.
 IV. No mineral is a plant.
 (1) Only I and III follow. (2) All the four follow.
 (3) Only II and III follow. (4) Either II or IV follows.
 (5) Either I or III follows.

Statements:

42. 1. Some bottles are jars.
 2. Some jars are cups.

Conclusions:

- I. Some jars are not bottles.
 II. Some cups are not jars.
 III. Some bottles are not jars.
 IV. Every jar is either a bottle or a cup.
 (1) Only I follows. (2) Only II follows.
 (3) Only III follows. (4) Only IV follows.
 (5) None follows.

Statements:

43. 1. All canals are glaciers.
 2. All rivers are canals.

Conclusions:

- I. All rivers are glaciers.
 II. All glaciers are canals.
 III. All canals are rivers.
 IV. Every glacier is either a canal or a river.
 (1) Only I follows. (2) Only II follows.
 (3) Only III follows. (4) Only IV follows.
 (5) Only II and III follow.

Statements:

44. 1. Some crows are eagles.
 2. Some eagles are sparrows while the rest are dogs.

Conclusions:

- I. Some crows are neither sparrows nor dogs.
 II. Some crows are either sparrows or dogs.
 III. Some eagles are not crows.
 IV. Some dogs are sparrows.
 (1) Only I and II follow. (2) Either I or II follows.
 (3) Only II and III follow. (4) Only IV follows.
 (5) Either II or III follows.

Statements:

45. 1. All parks are museums.
2. Some hotels are parks.

Conclusions:

- I. Some hotels are museums.
II. All museums are parks.
III. Some hotels are not museums.
IV. No museum is a hotel.

- (1) Only I and II follow. (2) Only II and III follow.
(3) Only I and III follow. (4) Only IV follows.
(5) All the four follow.

Statements:

46. 1. All drinks are either blue or red.
2. All red things are either sweet or bitter.

Conclusions:

- I. Blue drinks are bitter.
II. If a red drink is not bitter, it is sweet.
III. Blue drinks are sweet.
IV. Some drinks are neither red nor blue.

- (1) Only I follows. (2) Only II follows.
(3) Only III follows. (4) Only IV follows.
(5) Either III or IV follows.

Statements:

47. 1. Submarine is bigger than canoe but not as big as steamer which is shorter than raft.
2. Ship is bigger than raft but smaller than boat which is not as big as yacht.

Conclusions:

- I. Ship is bigger than steamer.
II. Submarine is smaller than raft.
III. Boat is bigger than canoe.
IV. Among all these, yacht is the biggest.

- (1) Only I and II follow.
(2) Only II, III and IV follow.
(3) Either III or IV follows.
(4) Either I and II or III and IV follow.
(5) All the four follow.

In each question below, a statement is given followed by three assumptions, numbered I, II and III. An assumption is something supposed or taken to be granted. You have to consider the statement and the assumptions and then decide which of them is/are implicit in the statement. Then decide which of the answers is the correct one.

Statement:

48. Many youngmen, recruited by the Naxals surrendered willingly before the police and their names have been deleted from the police records.

Assumptions:

- I. These youngmen wanted liberation from the clutches of extremists.
II. They had committed violence previously as instructed by their leaders.
III. The Naxalites will not recruit youngmen now.

- (1) Only I is implicit.
(2) Only I and II are implicit.

- (3) All the three are implicit.
(4) None is implicit.
(5) Only III is implicit.

Statement:

49. India cannot wage a conventional war against Pakistan because the international community will intervene and India cannot ignore it for the fear of sanctions.

Assumptions:

- I. Much of India's economy depends upon foreign sanctions.
II. India does not want to wage a war against Pakistan.
III. If India wages a war against Pakistan, some of the influential countries would stop the sanctions given to her.

- (1) Only I and II are implicit.
(2) Only I and III are implicit.
(3) Only II and III are implicit.
(4) Either I or III is implicit.
(5) All are implicit.

Statement:

50. Unfortunately, countries following very strict religious code are not democratic as they are not mentally free from fundamentalism.

Assumptions:

- I. All religions are against democracy.
II. Fundamentalists are liberal people.
III. In democratic countries people have no faith in religion.

- (1) Only I is implicit. (2) Only II is implicit.
(3) Only III is implicit. (4) Either II or III is implicit.
(5) None is implicit.

Statement:

51. For admission in a Bachelor of Business Management course, the stress is on percentage plus the candidate's performance in co-curricular and extra curricular activities.

Assumptions:

- I. A lot of other activities are included in the curriculum of BBM course.
II. Candidates with a very high percentage but little performance in other activities stand no chance of admission.
III. Young persons with good academic record and achievement in other activities are more alert, smart and active as compared to those who just have a good academic record.

- (1) Only I is implicit. (2) Only I and II are implicit.
(3) Only III is implicit. (4) Either I or II is implicit.
(5) None is implicit.

Statement:

52. The Indian scientific community is now out on the streets, shaking fists; provocation: The Union government's decision to ban all experiments on animals in the National Institute of Virology, Pune, which is trying to develop a vaccine for AIDS.

Assumptions:

- I. The Union government is conscious of the torture animals are subjected to during various scientific experiments and is sympathetic towards them.
- II. If the scientists did not conduct their experiments on various species, they would not be able to serve the humanity with right type of medicines and vaccines.
- III. The National Institute of Virology is sure to develop a vaccine to prevent AIDS.

- (1) Only I and II are implicit. (2) Only III is implicit.
 (3) Only II and III are implicit. (4) Only I is implicit.
 (5) All are implicit.

Statement:

53. Residents of border villages of Punjab who had left their homes and were living in camps are returning home. (A report in June.)

Assumptions:

- I. The positive diplomatic developments between the two countries have assured them that there would be no war in the near future.
- II. They are tired of living in camps and long to go back home.
- III. With monsoon expected to reach next month, they are desperate to go back to their fields.

- (1) Only I and II are implicit.
 (2) Only II and III are implicit.
 (3) Only I and III are implicit.
 (4) All are implicit.
 (5) Only one of the three is implicit.

In each of the questions given below, Assertion 'A' is followed by Reasons RI and RII. Apply the reasons to assertions and mark your answers as follows:

- (1) If only RI and not RII is the reason for A.
 (2) If only RII and not RI is the reason for A.
 (3) If both RI and RII are reasons for A.
 (4) If either RI or RII is the reason for A.
 (5) If neither RI nor RII is the reason for A.

54. A. Sachin Tendulkar is very much in demand in the 'ad' world.

- RI. The Tendulkar-mania helps in increasing the sale of products for which he advertises.
- RII. Sachin is very comfortable in front of camera hence commercials are effective.

- (1) ☐ (2) ☐ (3) ☐ (4) ☐ (5) ☐

55. A. In spite of several efforts by the environmentalists, some of the rarest species of birds and fish are on the brink of extinction.

- RI. Men, in general, do not care and kill them for selfish interest.
- RII. Every species extincts at some time or the other.

- (1) ☐ (2) ☐ (3) ☐ (4) ☐ (5) ☐

56. A. The chief accused of air-dropping weapons in Purulia, Kim Davy is in Denmark, but in spite of the efforts

of the CBI, the government of that country is not prepared to extradite him.

- RI. According to the law of Denmark, they do not extradite their citizens but try them themselves.
- RII. The CBI has not been able to convince the government of Denmark sufficiently.

- (1) ☐ (2) ☐ (3) ☐ (4) ☐ (5) ☐

57. A. Many Bollywood producers and directors try their hand at producing a film that has already been made in some other language.

- RI. The film in the other language was a great hit hence they are sure of its success.
- RII. There are no good story and script writers in Mumbai.

- (1) ☐ (2) ☐ (3) ☐ (4) ☐ (5) ☐

In each of the following questions, an interrogative statement is given followed by two arguments AI and AII. Mark your answers:

- (1) if only AI and not AII is forceful.
 (2) if only AII and not AI is forceful.
 (3) if both AI and AII are forceful.
 (4) if either AI or AII is forceful.
 (5) if neither AI nor AII is forceful.

58. Should we accept corruption in offices and other set-ups as a compulsory evil?

- AI. Yes, with so many persons involved in it in all the stratas of life, it should be accepted as such.
- AII. No, there is a small percentage that is not involved in corruption.

- (1) ☐ (2) ☐ (3) ☐ (4) ☐ (5) ☐

59. Will cross-border terrorism stop in the near future?

- AI. Yes, Mr Musharraf has been assuring everyone that there is no such activity.
- AII. No, the terrain along the LOC is such that guarding the border is not easy.

- (1) ☐ (2) ☐ (3) ☐ (4) ☐ (5) ☐

60. Should the age of retirement be brought down to 55 all over the country?

- AI. Yes, it would provide much more job opportunities to our educated unemployed youth.
- AII. No, at 55, the employees are very fit and have a lot of experience so why should they be retired!

- (1) ☐ (2) ☐ (3) ☐ (4) ☐ (5) ☐

In each of the following questions, you are given a pair of events 1 and 2. You have to read the two events and decide the nature of relationship between them. Assume that the information given in A and B is true. Do not assume anything else while deciding your answer. Mark your answers:

- (1) if I is the effect and II is its immediate and principal cause.
 (2) if I is the immediate and principal cause and II is its effect.
 (3) if I is an effect but II is not its immediate and principal cause.
 (4) if II is an effect but I is not its immediate and principal cause.

(5) None of the above

61. Event I: Though there is no constitutional provision for a Deputy Prime Minister, Mr Vajpayee appointed Mr Advani as a Deputy Prime Minister.

Event II: Mr Vajpayee was overloaded with work and needed someone to share it.

(1) ☐ (2) ☐ (3) ☐ (4) ☐ (5) ☐

62. Event I: Every vehicle needs a Pollution Under Control certificate.

Event II: The new generation cars have unleaded compatible engines which do not pollute the environment.

(1) ☐ (2) ☐ (3) ☐ (4) ☐ (5) ☐

63. Event I: On February 27, about half a kilometre from Godhra, the Sabarmati Express came to a halt, a strong mob started pelting stones targetting the coaches carrying *karsevaks* and set fire to coach S5.

Event II: The worst type of communal riots broke up in Gujarat rendering thousands homeless and orphaned.

(1) ☐ (2) ☐ (3) ☐ (4) ☐ (5) ☐

64. Event I: Some parts of Uttar Pradesh, Rajasthan and Punjab are facing the hazard of drought due to delayed Monsoon.

Event II: Monsoon is a gamble in India, as you never know its mood.

(1) ☐ (2) ☐ (3) ☐ (4) ☐ (5) ☐

65. Event I: Piyush Pandey, the ad films maker, bagged two gold and a silver at Cannes Lions 2002 show, dubbed as the Oscar of ad world.

Event II: Blessed with a creative genius, Piyush has made some wonderful ad films.

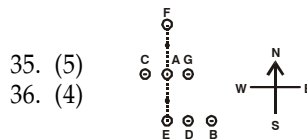
(1) ☐ (2) ☐ (3) ☐ (4) ☐ (5) ☐

ANSWERS AND EXPLANATIONS

1. (3) All the others are flightless birds.
2. (4) All the others are situated on river banks.
3. (3) He is the only novelist and story-writer among poets.
4. (2) All the other games are played with balls.
5. (2) All the others have straight lines only.
6. (5) All the others are related to being subject to harm or damage.
7. (1) All the others are related to wars.
8. (5) One emits the other.
9. (3) The first element is responsible from breaking the rules of the second one.
10. (1) The relationship is that of the element and the unit of its measurement.
11. (3) One is a tool for the other.
12. (4) One is an implement that helps the other.
13. (4) The first element consists of the group of the other.
14. (3) In all the others, the two figures have a difference of one side.
15. (3) It only measures the density of milk, the others measure quantity of the thing mentioned against them.
16. (4) All the others have the general category and its

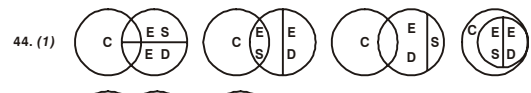
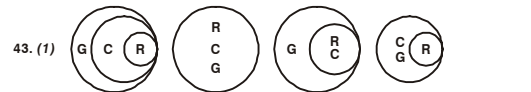
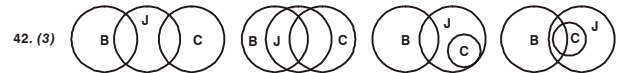
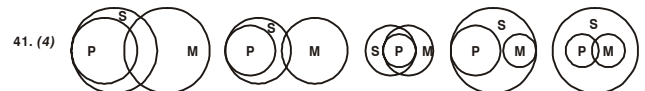
specific item relationship.

17. (2) The equipment is used for creating something.
18. (2) First, third and fifth letters are the previous ones (Z for A, E for F etc) and the remaining are coded by next letter (G for F, J for I etc).
19. (5)
- 20-25. Sort out common letters in words and match them with common code letters.
20. (4) 21. (2) 22. (1) 23. (5) 24. (2)
25. (3) 26. (3) E, M and C
27. (4) H, K, P, Q and T
28. (4) 29. (3) 30. (5)
31. (4) AI; NT; OS and CI.
32. (1) The arrangement being ITNAOIBSCIT
33. (3)
34. (1) The arrangement is Geo., Maths., Eng., Hist., Sans., Phy., Hin. and Chem.



35. (5)
36. (4)
37. (2) 38. (3) 39. (1) 40. (1)

The next type of questions are best answered by drawing Venn diagrams of all the probable situations and then reaching a fool-proof conclusion. Here are a few examples to provide you guidelines.



47. (5) Big → 'yacht, boat, ship, raft, steamer, submarine, canoe' ← small

48. (2) 49. (2) 50. (5) 51. (3) 52. (1)
53. (4) 54. (3) 55. (1) 56. (4) 57. (1)
58. (5) 59. (5) 60. (3) 61. (1) 62. (5)
63. (2) 64. (3) 65. (1)

Test of Reasoning

Solved paper of Narsee Monji MBA Entrance Examination

Qs. 1-5. Read the passage below and answer questions in the context of the passage.

There is also a confused notion in the minds of many persons, that the gathering of the property of the poor into the hands of the rich does no ultimate harm, since, in who so ever hands it may be, it must be spent at last, and thus, they think, return to the poor again. This fallacy has been again and again exposed; but granting the plea true, the same apology may, of course, be made for blackmail, or any other form of robbery. It might be (though practically it never is) as advantageous for the nation that the robber should have the spending of the money he extorts, as that the person robbed should have spent it. But this is no excuse for the theft. If I were to put turnpike on the road where it passes my own gate, endeavour to exact a shilling from every passenger, the public would soon do away with my gate, without listening to any pleas on my part that it was as advantageous to them, in the end, that I should spend their shillings as they themselves should. But if, instead of out-facing them with a turnpike, I can only persuade them to come and buy stones, or old iron, or any other useless thing out of my ground. I may rob them to the same extent, and be, more over, thanked as a public benefactor and promoter of commercial prosperity. And this main question of the poor of England for the poor of all countries—is wholly omitted in every treaty on the subject of wealth. Even by the labourers by themselves, the operation of capital is regarded only in its effect on their immediate interests, never in the far more terrific power of its appointment of the kind and object of labour. It matters little, ultimately how much the labourer is paid for making anything; but it matters fearfully what the thing is, which he is compelled to make. If his labour is so ordered to produce iron bars instead of them, the food and air will finally not be their, and he will not get them to his great and final inconvenience.

1. What does the author think regarding the accumulation of wealth?

- (1) Equates the rich with the thief
- (2) Indicates that there is no truly honest businessman
- (3) Condone some business dishonesty in business dealings
- (4) Believes destruction of property is good because it creates consumer demand

2. In which age did the author live, according to the passage?

- (1) 1960's in America
- (2) Victoria age in England
- (3) 18th century in France

(4) Periclean age in Greece

3. What does the passage imply?

- (1) "A stitch in time saves nine"
- (2) "It is better late than never"
- (3) "He who steals my purses steals trash"
- (4) "There are two sides of every story"

4. According to the passage, what an individual should be particularly concerned with?

- (1) How much wealth he can accumulate
- (2) The acquisition of land property rather than money
- (3) Charging the customer a fair price
- (4) The quality of goods which he purchases with his funds

5. What does the passage not indicate?

- (1) Stealing is sometimes pardonable
- (2) There are legal ways to rob the public
- (3) The poor are being abused
- (4) Workers wages are of little concern to the nation-at-large

Qs. 6-10. Read the passage below and answer questions in the context of the passage.

Leadership is getting things done through people. Leadership is required because someone has to point the way and that same person has to ensure that everyone concerned gets there. The most familiar saying about leadership is that 'leaders are born not made'. Like all clichés there is some truth in it although it cannot be taken literally. There are many successful leaders around who demonstrated their abilities at an early age have never looked back since. They have natural talents, and although they may not have actually been born with them, these talents have been fostered by their upbringing and experiences at school, university or in the armed forces. Their charisma, inspirational qualities and ways of handling people combine to produce a person about whom everyone says 'he's a natural leader'. Effective leaders start with some natural talents, and then they build on them. They are good at observing how to do it and how not to do it. They learn from their experience and they keep on learning.

6. Which of the following is the synonym for the word clichés as used in the passage?

- (1) Chestnut
- (2) Truism
- (3) Formula
- (4) All of the above

7. What is leadership?

- (1) Being able to achieve goals with the help of people
- (2) Telling people what is meant by success
- (3) Never to look back for support or help
- (4) Give direction and follow people

8. Why can it not always be said that 'leaders are born, not made'?

- (1) It cannot be taken literally every time
 - (2) Leaders are not always born with leadership qualities
 - (3) Many have been fostered by their upbringing and environment
 - (4) The saying loses its importance in some situations
9. What combine together to produce a natural leader?
- (1) Charisma, inspirational qualities and ways of handling people
 - (2) Role of heredity and environment
 - (3) Born talents for good observation of successful leaders
 - (4) Zeal to lead people even when they do not desire
10. Where do effective leaders learn from?
- (1) Their upbringing
 - (2) By observing other leaders
 - (3) Their own experience
 - (4) Their followers

Qs. 11-13. In the following questions the symbols #, /, +, %, and \$ are used with the following meaning:

- # means, greater than.
/ means, smaller than.
+ means, either smaller than or equal to.
% means, either greater than or equal to.
\$ means, equal to.

Now in each of the following questions assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely True?

11. STATEMENTS :
a#c c\$b b#e e+a
CONCLUSIONS:
I. b\$a
II. a#e
(1) If only conclusion I is true
(2) If only conclusion II is true
(3) If either conclusion I or II is true
(4) None of the above
12. STATEMENTS:
p#q q\$r r+p
CONCLUSIONS:
I. p\$q
II. r/p
(1) If only conclusion I is true
(2) If only conclusion II is true
(3) If either conclusion I or II is true
(4) None of the above
13. STATEMENTS:
l + m m%n n\$l l#o
CONCLUSIONS:
I. n\$o
II. m#l
(1) If only conclusion I is true
(2) If only conclusion II is true
(3) If either conclusion I or II is true

- (4) None of the above

Qs. 14-16. In the following questions the symbols ×, &, %, @, and # is used with the following meaning:

- × means greater than
& means either greater than or equal to
% means smaller than
@ means either smaller than or equal to
means equal to

Now in each of the following questions assuming the given statements to be true, find which of the two conclusions I and II given below them is/are definitely True?

14. STATEMENTS:
w#x x×y y@z
CONCLUSIONS:
I. w×y
II. x#z
(1) If only conclusion I is true
(2) If only conclusion II is true
(3) If either conclusion I or II is true
(4) None of the above
15. STATEMENTS:
a%b c×a a@m
CONCLUSIONS:
I. b#c
II. m@c
(1) If only conclusion I is true
(2) If only conclusion II is true
(3) If either conclusion I or II is true
(4) None of the above
16. STATEMENTS:
i×j k%j l#k
CONCLUSIONS:
I. i×k
II. l%j
(1) If only conclusion I is true
(2) If only conclusion II is true
(3) If either conclusion I or II is true
(4) None of the above

Qs. 17-46. Each of the following questions is followed by 2 sentences. You have to decide whether the two sentences are individually, severally or jointly sufficient to answer the question mark.

Note: Please do not assume any data except mathematical formulae and units of measurements. Please mark your answer:

- (1) If the first of the two statements alone is sufficient to answer the question.
 - (2) If the second of the two statements alone is sufficient to answer the question.
 - (3) If both the statements together are sufficient to answer the question but neither is individually sufficient to answer the question.
 - (4) None of the above.
17. X College offered three subjects logic, psychology and philosophy. Which subject has more students?

- (1) The ratio of the students for psychology to philosophy was 3 : 4
- (2) Out of 100 students, 52 opted for logic and psychology
18. What is the present age of Rita?
 - (1) Rita is 4 years younger to Leena
 - (2) Leena will be celebrating her 14th birthday next year
19. The total number of participants for a charity show was 300. What was the number of men in the participants?
 - (1) There was equal number of men and women participants
 - (2) Women participants were more than the men participants
20. How many television sets are there in the world?
 - (1) Each person in the world has one television set
 - (2) The total number of television sets in the world is equal to the number of people in the world
21. What is the cost price of a bucket?
 - (1) The profit earned on the bucket is $\frac{1}{3}$ rd the cost price
 - (2) The bucket is sold for Rs 40
22. Ram and Bharat went to two places Kashmir and Kanyakumari not necessarily in that order. Where did Ram go to?
 - (1) Ram went to Kashmir or Kanyakumari
 - (2) Ram was to first go to Kanyakumari
23. Is tower X taller than tower Z?
 - (1) The height of tower X is 100 ft
 - (2) The area of tower Z is 1000 sq ft
24. If there are 13 girls in club X, what is the average age of these girls?
 - (1) The oldest girl is 13 years old and the youngest girl is 9 years
 - (2) Eleven of the girls are either 10 years old or 11 years old
25. If a certain factory has filled 100 order, what per cent of the total number of orders has been filled?
 - (1) The total number of orders on file is 300
 - (2) The number of orders the factory has already filled represents two-fifths of the total number of orders
26. How many envelopes can be made from the available paper?
 - (1) The total quantity of available paper is 20 rolls each of 1 meter long
 - (2) Each person has to make minimum 10 envelopes in an hour
27. How many sisters does Anju have?
 - (1) Her parents have four surviving children
 - (2) She has twice as many brothers as sisters
28. If x , y and z are integers, is $xy + c$ odd?
 - (1) y is even and c is odd
 - (2) x is odd and c is odd
29. What will be the price of 750 pencils?
 - (1) The price of seven dozens of pencils is Rs 253
 - (2) The cost of one dozen pencils is Rs 36
30. A train crosses a platform in 20 seconds. What is the speed of the train?
 - (1) The length of the train is 180 metres
 - (2) The length of the platform is 240 metres
31. What is the population of village B?
 - (1) Last year the population of village B was 20,000
 - (2) This year the population is thrice the population last year
32. Is Amit eligible for the admission in school X?
 - (1) The company does not allow any of the non-residential
 - (2) All the local residential are given admissions
33. What is the total number of rotations made by a fan?
 - (1) The fan completes 100 rotations in 30 minutes
 - (2) The fan is on for 16 hours in a day
34. Is A greater than B?
 - (1) A is greater than C
 - (2) B is greater than C
35. Jai ranks 5th in the class. How many students are there in the class?
 - (1) His class friend got 58th rank which is the last
 - (2) The percentile rank of Jai is 95
36. What is the area of the triangle in sq cm?
 - (1) One side of the triangle is twice the other
 - (2) The hypotenuse side is 10 cm
37. How many letters can be written in a day?
 - (1) Each letter must be of 500 words
 - (2) 4 letters must get completed in two hours
38. How many programmers does it take to change a light bulb?
 - (1) Depends upon the number of threads in the bulb
 - (2) Each programmer can individually change a light bulb
39. How many computers are there in a computer institute?
 - (1) Each student in the institute has one computer
 - (2) The total number of computers in the institute is equal to the number of students in the institute
40. Why is education important?
 - (1) Education gives a measure of the persons standing in a particular field
 - (2) There should be no discrimination between men and women regarding education
41. How much profit does the company with a turnover of Rs 1 crore make?
 - (1) Raw materials amount to 60% of the operating costs
 - (2) Net margins are 10%
42. If $p > r$, is $pn - rn$ greater than $q - s$?
 - (1) $p - r > q - s$
 - (2) $p = 3$
43. If the radius of circle L is greater than 0, what is the radius of circle L?
 - (1) The area of L is equal to its radius times π
 - (2) The circumference of L is 2π

REASONING ABILITY

44. Ajay grew 50 flowering plants from brown seeds and yellow seeds, each seed giving rise to one plant. A plant gives flowers of only one colour. From a brown seed comes a plant giving white or red flowers. From a yellow seed comes a plant giving pink or purple flowers, how many yellow seeds were used by Ajay?

- (1) The number of plants with purple flowers was 20
- (2) The number of plants with white flowers was 50

45. How many books are printed each year by a printing press?

- (1) Each book gives an equal 30% of the total profits of the press in each year

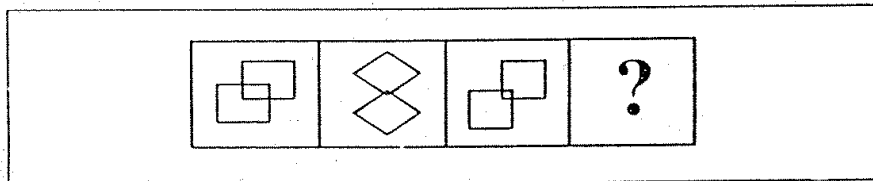
(2) Each of the 5 writers of the press writes one book each in a year

46. The difference between compound interest and simple interest for a two-year period is Rs 50, what is the principal amount?

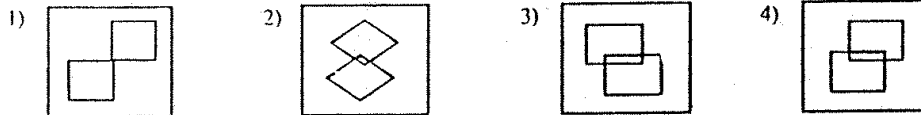
- (1) Ratio of compound interest to simple interest is 1 : 1
- (2) Interest rate is 12% p.a.

Qs. 47-51. The following figures constitute the question or the problem. Find out which would be the next figure from the answer figures or which one figure will replace the question mark.

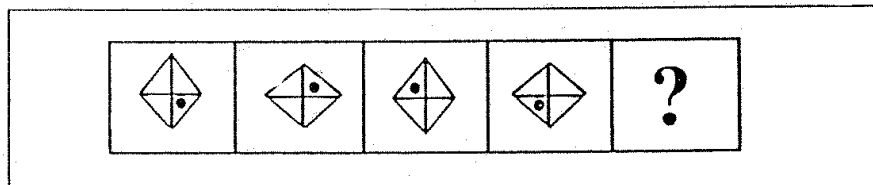
47. Question Figure :



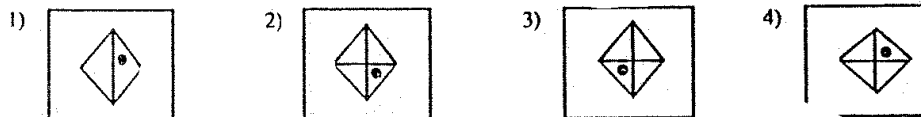
Answer Figures :



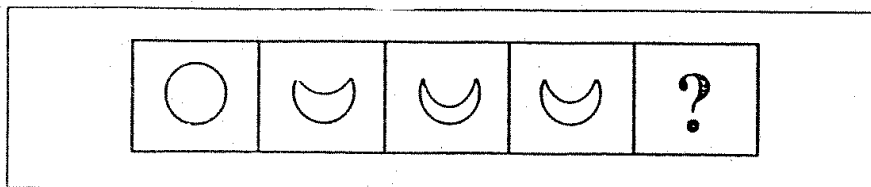
48. Question Figure :



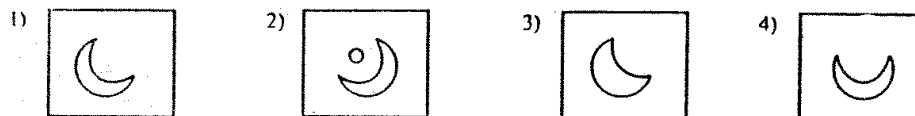
Answer Figures :



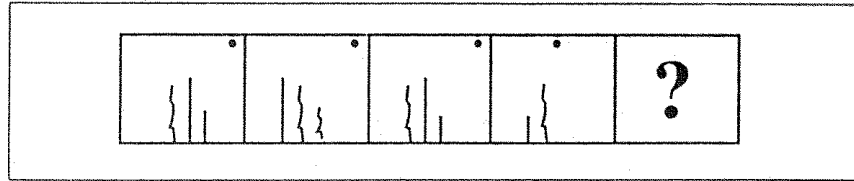
49. Question Figure :



Answer Figures :



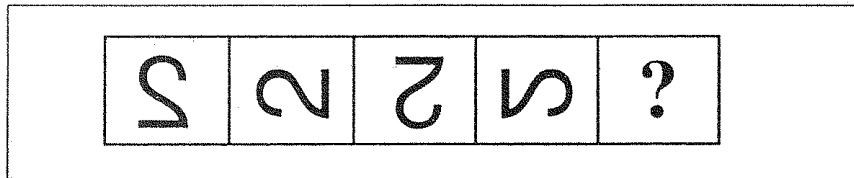
50. Question Figure :



Answer Figures :



51. Question Figure :



Answer Figures :



Qs. 52-64. Select the word that is most opposite in meaning to the question text word.

52. Grudgingly
 (1) Hesitatingly (2) Willingly
 (3) Instantly (4) Angrily
53. Stomp
 (1) Steal (2) Crush
 (3) Understand (4) None of the above
54. Mope
 (1) Dirty (2) Work (3) Loiter (4) Happy
55. Peter
 (1) Grow (2) Pan
 (3) Noise of feet (4) None of the above
56. Rookie
 (1) Experienced (2) Novice (3) Gambler (4) Police
57. Secure
 (1) Equity (2) Loose (3) Lose (4) Debt
58. Shanty
 (1) Profuse (2) Posh (3) Shall (4) Sunny
59. Therapeutic
 (1) Practical (2) Medicinal
 (3) Sickening (4) Immediate
60. Tinsel
 (1) Metallic (2) Shiny (3) Movie like (4) Dull

61. Virtuoso
 (1) Real (2) Skilled (3) Untalented (4) Unreal
62. Visage
 (1) Young (2) Backside (3) Topside (4) Face
63. Coveted
 (1) Unwanted (2) Wanted (3) Open (4) Secret
64. Conform
 (1) Deny (2) Accept (3) Vary (4) Harass

Qs. 65-68. In each question a statement is followed by two arguments I and II. You have to decide which argument is strong and which one is weak. Remember—a strong argument is both important and relevant whereas a weak argument relates to unimportant aspect and has little relevance to the core issue.

65. Should Government freeze pay scales and salary of all private or public sector and its own employees to contain inflation?

Arguments:

- I. Yes, all over the world this is considered as a sure way to contain inflation.
- II. No, the government should control market forces to keep check on the prices.
- (1) If only argument I is strong
 (2) If only argument II is strong

- (3) If neither argument I nor II is strong
(4) None of the above

66. Should religion be taught in our schools?

Arguments:

- I. Yes, do the parents not wish to develop their wards into mature individuals?
II. No, how can one dream of such a step when we want the young generation to fulfil its role in the coming 21st century.

- (1) If only argument I is strong
(2) If only argument II is strong
(3) If neither argument I nor II is strong
(4) None of the above

67. Should non-vegetarian food be totally banned in our country?

Arguments:

- I. Yes, it is expensive and therefore it is beyond the means of most people in our country.
II. No, nothing should be banned in democratic country like ours.

- (1) If only argument I is strong
(2) If only argument II is strong
(3) If neither argument I nor II is strong
(4) None of the above

68. Should workers be allowed to participate in the management of factories in India?

Arguments:

- I. Yes, it is the present management theory.
II. No, many workers are illiterate. Hence their contributions will not be of value.

- (1) If only argument I is strong
(2) If only argument II is strong
(3) If neither argument I nor II is strong
(4) None of the above

Qs. 69-71. The given passage is followed by several inferences which can be drawn from the facts stated in the passage. You have to examine each inference separately in the context of the passage and decide upon its degree of truth or falsity.

69. Wind is an inexhaustible source of energy and an aero generator can convert it into electricity. Though not much has been done in this field, the survey shows that there is vast potential for developing wind as alternative source of energy.

INFERENCES:

- I. Energy by wind is comparatively newly emerging field
II. The energy crisis can be dealt by exploring more in the field of aero generation.

- (1) If only inference I follows
(2) If only inference II follows
(3) If neither inference I nor II follows
(4) None of the above

70. It is a miracle that Pakistan has agreed to sign a

treaty with India regarding the Kashmir problem. It can be signed any day now.

INFERENCES:

- I. Earlier it was not possible to sign the treaty regarding the Kashmir problem.
II. The treaty was not signed between India and Pakistan when the above statement was made.

- (1) If only inference I follows
(2) If only inference II follows
(3) If neither inference I nor II follows
(4) None of the above

71. In film and videotape, it is possible to induce the viewers to project their feelings onto the characters on the screen. In one study, when a camera shot of a baby in a crib was shown, the audience thought the woman's face was registering happiness.

INFERENCES:

- I. The expression on the woman's face was, in actuality blank.
II. A camera shot of a baby in a crib provoked feelings of happiness to the audience.

- (1) If only inference I follows
(2) If only inference II follows
(3) If neither inference I nor II follows
(4) None of the above

Qs. 72-81. Each of the following sentences has one or more grammatical errors. Select the grammatically correct option from amongst those given below each sentence:

72. There are leader, there are leaders

- (1) There are leaders and there are leaders
(2) There are leaders, and there are leaders
(3) There are leaders and leaders
(4) There are leaders, and leaders

73. Five out six people suffer acidity

- (1) Five out of six people suffer acidity
(2) Five out six people suffer from acidity
(3) Five out of six people suffer from acidity
(4) Five of six people suffer acidity

74. Some people are simply not cut to be managers

- (1) Some people simply not out to be managers
(2) Some people simply not cut out to be managers
(3) Some people are simply not cut to be managers
(4) Some people are simply not cut out to be managers

75. An eye for eye ends up making whole world blind

- (1) An eye for eye ends up making the whole world blind
(2) An eye for eye end up making the whole world blind
(3) An eye for an eye ends up making the whole world blind
(4) An eye for an eye end up making the whole world blind

76. It takes to to tango

- (1) It take to to tango (2) It takes two to tango
(3) It take two to tango (4) It takes to to tango

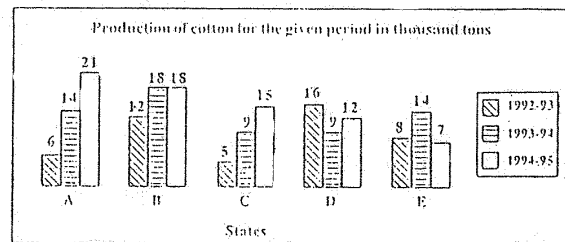
77. The car behind us bearing down us
 (1) The car behind us was bearing down on us
 (2) The car behind us was bear down us
 (3) The car behind us was beared down us
 (4) The car behind us beared down us
78. Year to thousand was the year the internet
 (1) Year to thousand was the year of the internet
 (2) Year two thousand was the year the internet
 (3) Year two thousand was the year of the internet
 (4) Year two thousand was the ear of the internet
79. The population the world is 4 billion
 (1) The population the world is 4 billion
 (2) The population into the world is 4 billion
 (3) The population of world is 4 billion
 (4) The population of the world is 4 billion
80. Our bank is hop, skip jump from our office
 (1) Our bank is hop, skip, jump from our office
 (2) Our bank is a hop skip jump from our office
 (3) Our bank is hop, skip and a jump from our office
 (4) Our bank is a hop, skip and a jump from our office
81. 5 times 5 is equals 30
 (1) 5 times 5 is equals 25 (2) 5 time 5 is 25
 (3) 5 times 5 equals 25 (4) 5 times 5 equals 30

Qs. 82-86. In each question below a statement is given followed by two assumptions numbered I and II. You have to consider the statement and the assumption given and decide which of the choices about implicitness of assumption is true.

82. Safety and health practices in many Indian companies are well below the international standards.
 I. International standards of health and safety are ideal and unrealistic.
 II. Indian organisations do not consider safety and health management as their prime social responsibility.
 (1) If only assumption I is implicit
 (2) If only assumption II is implicit
 (3) If neither I nor II is implicit
 (4) None of the above
83. Most of the parents desire to put their children in English medium schools vis-à-vis regional language schools.
 I. The quality of education of English medium schools is better than regional language schools.
 II. Regional language classrooms are very crowded.
 (1) If only assumption I is implicit
 (2) If only assumption II is implicit
 (3) If neither I nor II is implicit
 (4) None of the above
84. The product 'X' that you have asked for is not with us but can be made available against firm order from you.
 I. The product 'X' is not in great demand
 II. The product 'X' is out of stock as new model is coming up
 (1) If only assumption I is implicit
 (2) If only assumption II is implicit

- (3) If neither I nor II is implicit
 (4) None of the above
85. Sandeep has a large collection of books and he keeps on purchasing new books to add to his collection.
 I. Sandeep loves and cares for books
 II. Sandeep has read each and every book that he has purchased.
 (1) If only assumption I is implicit
 (2) If only assumption II is implicit
 (3) If neither I nor II is implicit
 (4) None of the above
86. This year most of the shops and departmental stores are offering prizes and discounts on purchases to attract customers.
 I. The shops and departmental stores have so far earned a lot of profit so now they have started sharing it with customers.
 II. Lots of goods are available but the sale is not shooting up, there is no cheer for the customers.
 (1) If only assumption I is implicit
 (2) If only assumption II is implicit
 (3) If neither I nor II is implicit
 (4) None of the above

Qs. 87-91. Answer the questions with reference to the graph given below:



87. The production of State D in 1993-94 is how many times its production in 1994-95?
 (1) 1.33 (2) 0.75 (3) 0.56 (4) 1.77
88. In which of the State/s is there a steady increase in the production of cotton during the given period?
 (1) A and B (2) A and C (3) B only (4) D and E
89. How many quintals of cotton was produced by State E during the given period?
 (1) 29000 (2) 290000 (3) 2900 (4) 2900000
90. How many States showing below average production in 1992-93 showed above average production in 1993-94?
 (1) 4 (2) 2 (3) 3 (4) 1
91. Which of the following statements is false?
 (1) States A and E showed the same production in 1993-94
 (2) There was no improvement in the production of cotton in State B during the year 1994-95
 (3) State A has produced maximum cotton during the given period
 (4) Production of States C and D together in 1993-94

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is equal to that of State B during the same period

Qs. 92-103. Select the word that is most similar in meaning to the word given in each question:

92. Arpeggio
 (1) Music (2) Pages (3) Flowers (4) Ships
93. Cartographer
 (1) Cart Maker (2) Transporter
 (3) Map Maker (4) Box Maker
94. Follicle
 (1) Pores (2) Erroneous (3) Mistake (4) Lagging
95. Foist
 (1) Pull up (2) Impose (3) Lead (4) Crane
96. Galvanic
 (1) Brave (2) Courteous (3) Dramatic (4) Wandering
97. Glacial
 (1) Joyous (2) Shining (3) Grassy (4) Cold
98. Huarache
 (1) Victory shouts (2) Pain (3) Hat (4) Shoe
99. Hypothermia
 (1) High body temperature
 (2) Low body temperature
 (3) Temperature Average
 (4) Study of temperatures
100. Mountie
 (1) A policeman (2) Hill
 (3) Uneven (4) A garment
101. Muddling
 (1) Dirty (2) Mud pudding
 (3) Mud cake (4) Confusing
102. Mull
 (1) Donkey (2) Factory (3) Ponder (4) Nil
103. Petrology
 (1) Study of petrol (2) Study of exploration
 (3) Study of rocks (4) Study of oil
104. The owner of a restaurant decides to calculate the percentage of vegetarian Jain dishes sold. If 70 per cent of the dishes sold are vegetarian and of this 20 per cent are Jain dishes what percentage of the total dishes sold are vegetarian Jain dishes?
 (1) 50% (2) 18% (3) 20% (4) 14%
105. In a certain shop which stocks four types of caps there are $\frac{1}{3}$ as many red caps as blue and $\frac{1}{2}$ as many green caps as red caps. There are equal numbers of green caps and yellow caps. If there are 42 blue caps, what per cent of the total caps in the shop are blue?
 (1) 70% (2) 28% (3) 60% (4) 14%
106. A bag contains 600 pens of brand A and 1200 pens of brand B. If 12% of brand A pens and 25% of brand B pens are removed, what is the *approximate* percentage of total pens removed from the bag?
 (1) 37% (2) 36% (3) 21% (4) 18%
107. A mill worker's basic pay for a 40 hour week is Rs 20. Overtime is paid for at 25% above the basic rate. In a certain week he worked overtime and his total wage was Rs 25. He therefore worked for a total of:

- (1) 40 hours (2) 42 hours (3) 48 hours (4) 50 hours
108. There are 361 doctors and nurses in a hospital. If the ratio of doctors to nurses is 8 to 11, how many nurses are there in the hospital?
 (1) 152 (2) 209 (3) 57 (4) 171
109. Which of the following ratios is the largest?
 (1) 7 : 15 (2) 15 : 23 (3) 17 : 25 (4) 21 : 29
110. On an 800 mile trip car W travelled half the distance at 80 miles per hour and the other half at 100 miles per hour. What was the average speed of car W?
 (1) 18.00 (2) 180.00 (3) 90.00 (4) $88\frac{8}{9}$
111. Rs 180 contained in a box consists of one rupee, 50 paise and 25 paise coins in the proportion of 2 : 3 : 4. How many 50 paise coins are there in the box?
 (1) 120 (2) 60 (3) 40 (4) 240
112. 243 has been divided into three parts such that half of the first part, one-third of the second part and one-fourth of the third part are equal. The largest part is:
 (1) 72 (2) 81 (3) 54 (4) 108
113. When a certain number is multiplied by 13, the product consists entirely of fives. The smallest such number is:
 (1) 41625 (2) 42515 (3) 42735 (4) 42135
114. How many three digit numbers are divisible by 6?
 (1) 102 (2) 150 (3) 151 (4) 966
115. What annual rate of interest was paid, if Rs 10,000 earned Rs 1000 as interest in 2 years?
 (1) 2% (2) 5% (3) 10% (4) 20%
116. A invested 125% as much money as B. C invested 80% as much money as B. The total of all three is 61,000. How much did C invest?
 (1) 25000 (2) 16000 (3) 20000 (4) 45000
117. $[(469 + 174)^2 - (469 - 174)^2] / [469 \times 174]$ is equal to:
 (1) 2 (2) 4 (3) 643 (4) 295
118. Three of the four parts numbered 1, 2, 3 and 4 in the following expression are exactly equal. Which part is not equal to the other three? The number of that part is the answer:
 (1) $(a - b)^2 + 4ab$ (2) $a(a + b) + b(a + b)$
 (3) $(a^2 - b^2) + 2b(b + a)$ (4) $(a - b)b + (a + b)2b$
119. Six bowls of flour are required to make a batch of cakes. How many bowls of flour are needed to make enough cakes to fill 12 cake boxes, if each box holds 1.5 batches?
 (1) 108 (2) 18 (3) 27 (4) 72
120. If $134 = 12$, $345 = 60$, then $234 = ?$
 (1) 24 (2) 21 (3) 41 (4) 36
121. Car A leaves Mumbai for Daman which is 180 kilometers away. At the same time car B leaves Daman for Mumbai. If car A travels at 60 kms/hour and car B travels at 30 kms/hour, where will the 2 cars meet?
 (1) 120 kms from Mumbai
 (2) 150 kms from Daman
 (3) Between Mumbai and Daman
 (4) None of the above

122. The rank of $\frac{2}{9}$ in the following fraction when expressed in ascending order is:

$$-\frac{2}{3}, \frac{1}{7}, 0, \frac{4}{9}, \frac{2}{9}, \frac{14}{15}, \frac{9}{11}$$

(1) 4 (2) 5 (3) 6 (4) 9
123. Which of the following fractions is the smallest?

(1) $\frac{13}{16}$ (2) $\frac{15}{19}$ (3) $\frac{17}{21}$ (4) $\frac{7}{8}$

124. Which of the following fraction is less than $\frac{7}{8}$ and greater than $\frac{1}{3}$?

(1) $\frac{1}{4}$ (2) $\frac{23}{24}$ (3) $\frac{11}{12}$ (4) $\frac{17}{24}$

125. Which of the following are possible measures for the angles of a parallelogram?

- a. 90, 90, 90, 90.
b. 40, 70, 50, 150.
c. 50, 130, 50, 130.

- (1) a only (2) b only
(3) c only (4) b and c only

126. The formula $E = \sqrt{A/7}$ describes the relationship between the length of the edge C of a pyramid and the surface area A of the pyramid. How much longer is the edge of the pyramid with a surface area 3087 than the edge of one with a surface area 2023?

- (1) 1064 (2) 152 (3) 250 (4) 4

127. A retailer buys a stereo for Rs 225. His overhead expenses are Rs 15. He sells the stereo for Rs 300, what percentage return on this cost did he get on this transaction?

- (1) 10 (2) 25 (3) 33 (4) 50

128. The profits of a firm are to be distributed in a suitable ratio. Suitable ratio is the ratio whose terms differ by 40 and the measure of which is $\frac{2}{7}$.

- (1) 280 : 2 (2) 16 : 56 (3) 80 : 7 (4) 40 : 14

129. A shop-keeper sells wheat at a profit of 10% and uses weights which are 20% less than the actual weight. The total gain earned by him will be:

- (1) 30% (2) 88% (3) 37.5% (4) None of these

130. Mr X bought a music system with 20% discount on the labelled price. Had he bought it with 25% discount he would have saved Rs 500. At what price did he buy the music system?

- (1) Rs 16000 (2) Rs 12000 (3) Rs 10000 (4) Rs 5000

Qs. 131-135. In each question, there are two statements which can be combined into a single statement in a number of different ways without changing their meaning. Below them are given three probable starters of such combined sentence. Decide upon which is/are correct, if any, and

answer the questions.

131. STATEMENTS:

The school bell rang.

The students started running towards their home.

STARTERS:

- I. Even the school bell.....
II. At the sound of the....
III. As the students.....
(1) Both I & III are correct (2) Only II is correct
(3) Only III is correct (4) None of the above

132. STATEMENTS:

I tried to contact Ganesh several times.

I could not get in touch with him.

STARTERS:

- I. Though I tried.....
II. In spite I tried....
III. Whenever I tried....
(1) Only I is correct (2) Only II is correct
(3) Only III is correct (4) None of the above

133. STATEMENTS:

The terrorist was overpowered by police.

He surrendered to them.

STARTERS:

- I. His being overpowered....
II. Surrendering only....
III. Although overpowered....
(1) Both I and II are correct
(2) Both I and III are correct
(3) Both II and III are correct
(4) None of the above

134. STATEMENTS:

The law and order situation was worsening in the city.

The civic authorities decided to impose curfew.

STARTERS:

- I. But because the law...
II. In view of the...
III. As the law and...
(1) Both I and II are correct
(2) Both II and III are correct
(3) Both I and III are correct
(4) All of the three

135. STATEMENTS:

Randhir knew Kiran for ten years.

Randhir didn't tell this secret to Kiran.

STARTERS:

- I. Though Randhir knew...
II. If Randhir knew...
III. Since Randhir knew...
(1) Both I and III are correct
(2) Both II and III are correct
(3) Both I and II are correct
(4) None of the above

Qs. 136-139. In each question below a statement is given followed by two conclusions numbered I and II. You have to assume everything in the statement to be true, then

consider the two conclusions together and decide which of them logically follows beyond a reasonable doubt from the information given in the statement.

136. The XYZ City Medical College has started a cell which will conduct counselling workshops in the field of stress management to patients and general public.

- I. The hospital has needed resources to start such activity.
- II. Patients and general public feels a need to have such cell in the hospital.
- (1) If only conclusion I follows
- (2) If only conclusion II follows
- (3) If either conclusion I or II follows
- (4) None of the above

137. The government is thinking on a proposal to withdraw tax incentives on popular savings schemes like N.S.C., post/bank deposits etc.

- I. The government may withdraw tax incentives on these schemes.
- II. The government may not withdraw tax incentives on these schemes.
- (1) If only conclusion I follows
- (2) If only conclusion II follows
- (3) If either conclusion I or II follows
- (4) None of the above

138. The citizen's forum wants to unite tax-paying citizens and to make them aware of their right to lead quality civic life.

- I. Till this time the citizens were neither united nor much aware of their rights as tax-paying citizens.
- II. Quality civic life is not possible for tax-paying citizens in any country.
- (1) If only conclusion I follows
- (2) If only conclusion II follows
- (3) If either conclusion I or II follows
- (4) None of the above

139. The commissioner of police has appealed people not to put up banners which obstruct pedestrian or motor traffic.

- I. Some of the people may respond and will not put up such banners.
- II. Policemen will have to keep a watchful eye on the new banners which are being put up on the roads.
- (1) If only conclusion I follows
- (2) If only conclusion II follows
- (3) If either conclusion I or II follows
- (4) None of the above

Qs. 140-142. In each of the questions below are given two statements followed by two conclusions I and II. Assuming that everything given in the statements is true and considering both the conclusions together, you have to decide which of the given choices follows logically beyond reasonable doubt from the given statements.

140. STATEMENTS :

All water is divine. All temples are divine.

CONCLUSIONS:

- I. All water is temple.
- II. All temples are water.
- (1) If only conclusion I follows
- (2) If only conclusion II follows
- (3) If either conclusion I or II follows
- (4) None of the conclusion follows

141. STATEMENTS :

Some politicians are honest. Some educated are politicians.

CONCLUSIONS:

- I. Some educated are honest.
- II. Some politicians are not educated.
- (1) If only conclusion I follows
- (2) If only conclusion II follows
- (3) If either conclusion I or II follows
- (4) None of the conclusion follows

142. STATEMENTS :

No pan is cock. Some cocks are healthy.

CONCLUSIONS:

- I. No pan is healthy.
- II. No healthy is pan.
- (1) If only conclusion I follows
- (2) If only conclusion II follows
- (3) If either conclusion I or II follows
- (4) None of the conclusion follows

Q. 143-146. Answer the questions with reference to the table given below:

| Production of Different Types of Scooters (in thousand) | | | | | | |
|---|------|-----|-----|-----|-----|-----|
| Year | Type | | | | | |
| | D | E | F | G | H | I |
| 1995 | 128 | 70 | 110 | 65 | 70 | 60 |
| 1996 | 150 | 75 | 70 | 75 | 74 | 30 |
| 1997 | 170 | 68 | 120 | 80 | 72 | 20 |
| 1998 | 165 | 64 | 85 | 100 | 80 | 70 |
| 1999 | 180 | 110 | 95 | 102 | 74 | 110 |
| 2000 | 200 | 100 | 90 | 105 | 98 | 120 |
| Total | 993 | 487 | 570 | 527 | 468 | 410 |

143. Production of which type of scooters in 1997 was the least as a percentage of the production of type D scooters in the preceding year?

- (1) D
- (2) F
- (3) H
- (4) I

144. What is the approximate percentage increase in the production of scooters of type F over the production of scooters of type G over the years?

- (1) 8
- (2) 7.54
- (3) 9.29
- (4) 4.10

145. The total production of which type of scooter in 1995 and 1996 is equal to its total production in 1998 and 1999?

- (1) F
- (2) D
- (3) G
- (4) I

146. There was a consistent increase in the production of which type of scooter over the year?

- (1) G
- (2) H
- (3) I
- (4) None of the above

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Qs. 147-150. Answer the questions with reference to the table given below:

| Year | Production in Million Tonnes | | | | |
|--------------|------------------------------|------------|------------|---------------|-------------|
| | Jowar | Barley | Bajra | Other cereals | Total |
| 1979-80 | 470 | 160 | 140 | 250 | 1020 |
| 1980-81 | 500 | 200 | 220 | 350 | 1270 |
| 1981-82 | 450 | 220 | 210 | 400 | 1280 |
| 1982-83 | 570 | 250 | 280 | 420 | 1520 |
| Total | 1990 | 830 | 850 | 1420 | 5090 |

147. The production of jowar was what per cent of the total production during the period 1979-80 to 1982-83?

- (1) 40% (2) 39% (3) 38% (4) 41%

148. What was the percentage increase in the production of jowar during the year 1982-83 over the previous year?

- (1) 28.89% (2) 22.22% (3) 14.00% (4) 26.67%

149. The production of which of the following was the highest in the year 1981-82?

- (1) Barley (2) Jowar (3) Bajra (4) Other cereals

150. During which year was the increase in the production of other cereals the lowest?

- (1) 1979-80 (2) 1980-81 (3) 1981-82 (4) 1982-83

ANSWERS AND EXPLANATIONS

1. (1) 2. (2) 3. (4) 4. (4) 5. (1)
 6. (3) 7. (1) 8. (2) 9. (1) 10. (3)
 11. (4) 12. (4) 13. (2) 14. (1) 15. (2)
 16. (4) Both I and II are true. $i > j > k = l$
 17. (3) 18. (3) 19. (1) 20. (4) 21. (3)
 22. (4) 23. (4) 24. (4)
 25. (4) Both can individually answer
 26. (4) 27. (3) 28. (1)
 29. (4) Both can individually answer the question.
 30. (3) 31. (3) 32. (4) 33. (3) 34. (4)
 35. (1) 36. (3) 37. (2) 38. (4) 39. (4)
 40. (1) 41. (3) 42. (1) 43. (4) Either
 44. (2) 45. (2) 46. (3) 47. (2) 48. (2)
 49. (4) 50. (2) 51. (3) 52. (2) 53. (4)
 54. (4) 55. (1) 56. (1) 57. (2) 58. (2)
 59. (3) 60. (4) 61. (3) 62. (2) 63. (1)
 64. (1) 65. (1) 66. (3) 67. (3) 68. (3)
 69. (4) Both I and II inferences follow.
 70. (2) 71. (4) Both the inferences follow.
 72. (3) 73. (3) 74. (4) 75. (3) 76. (2)
 77. (1) 78. (3) 79. (4) 80. (3) 81. (3)
 82. (2) 83. (1) 84. (4) It could be either I or II.
 85. (1) 86. (2) 87. (2) 88. (2) 89. (2)
 90. (2) A & B 91. (3) 92. (1) 93. (3)
 94. (1) 95. (2) 96. (3) 97. (4) 98. (5)
 99. (2) 100. (1) 101. (4) 102. (3) 103. (3)
 104. (4) 30% non veg. 70% veg. with 14 Jain dishes, i.e. 20% of 70, hence 14%.

105. (3) Total caps 70; 42 blue, 14 red, 7 green and 7 yellow.
 $\frac{42 \times 100}{70} = 60\%$

106. (3) 12% of A pen means 72 pens and 25% of B means 300 pens. $72 + 300 = 372$
 Total number of pens is 1800.
 $\frac{372 \times 100}{1800} = \frac{62}{3}$ Approx. 21%

107. (3) For 2 hrs, the pay is Re 1/-
 For 2 hrs overtime Rs 1.25
 For Rs 5/- the overtime would be 8 hrs more
 $40 + 8 = 48$

108. (2) 109. (1)

110. (4) First 400 miles in 5 hrs (at 80 miles p.h.)
 Second 400 miles in 4 hrs (at 100 miles p.h.)
 In 9 hrs, the distance covered is 800 miles
 \therefore In 1 hr, the distance covered is $\frac{800}{9} = 88\frac{8}{9}$

111. (1) One rupee coins 80; 50 p. coins 120; 160 p. coins 160

112. (4) $54 : 81 : 108; \frac{54}{2} = 27; \frac{81}{3} = 27; \frac{108}{4} = 27$

113. (3)

114. (2) First is 102 and the last 996.

115. (2)

116. (2) A—25000; B—20000; C—16000

117. (2) 118. (4)

119. (1) $12 \times 1.5 = 18; 18 \times 6 = 108$

120. (1) Multiply the digits of numbers, $1 \times 3 \times 4 = 12;$
 $3 \times 4 \times 5 = 60; 2 \times 3 \times 4 = 24$

121. (1) Mumbai—180—Daman
 $\frac{120}{2 \text{ hours}} \quad \frac{60}{2 \text{ hours}}$

122. (1) 123. (2) 124. (4) 125. (3) 126. (4)

127. (2) 128. (2) 129. (3) 130. (3) 131. (2)

132. (1) 133. (4) 134. (2) 135. (1)

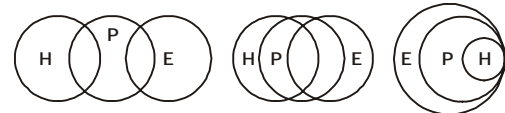
136. (4) Both I and II follow

137. (3) 138. (1)

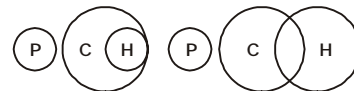
139. (1) The II, though appears to follow is actually not concluded from the statement.

140. (4) Though 'divinity' is a common factor, a relation between temples and water is not necessary.

141. (4) Probabilities



142. (4) Probabilities



143. (4) 144. (1) 145. (1) 146. (1) 147. (2)

148. (4) 149. (2) 150. (3)

Test of Reasoning-1

Qs. 1-6. In each of the following questions, a series of numbers is given. Below this series a number is given. You have to make a similar series of numbers from the given pattern and answer the question that follows:

1. 8 23 68 203 608

5 (A) (B) (C) (D) (E)

Which of the following numbers will come in place of (D)?

(1) 631 (2) 198 (3) 281 (4) 324 (5) 365

2. 2 6 12 20 30

30 (A) (B) (C) (D) (E)

Which of the following numbers will come in place of (C)?

(1) 84 (2) 72 (3) 81 (4) 75 (5) 91

3. 3 8 15 24 35

48 (A) (B) (C) (D) (E)

Which of the following numbers will come in place of (D)?

(1) 134 (2) 120 (3) 143 (4) 224 (5) 101

4. 89 97 101 103 107

23 (A) (B) (C) (D) (E)

Which of the following numbers will come in place of (E)?

(1) 43 (2) 41 (3) 39 (4) 43 (5) 40

5. 2 4 12 48 240

3 (A) (B) (C) (D) (E)

Which of the following numbers will come in place of (C)?

(1) 49 (2) 64 (3) 72 (4) 68 (5) 81

6. 25 32 46 67 95

19 (A) (B) (C) (D) (E)

Which of the following numbers will come in place of (B)?

(1) 47 (2) 39 (3) 40 (4) 29 (5) 38

Qs. 7-10. In each of the following questions, a series of numbers is given in which one of the numbers does not fit. You have to find this wrong number.

7. 29 33 37 41 43

(1) (2) (3) (4) (5)

8. 69 92 116 138 161

(1) (2) (3) (4) (5)

9. 8 12 19 27 40.5

(1) (2) (3) (4) (5)

10. 32 38 52 73 101

(1) (2) (3) (4) (5)

Qs. 11-12. Find out the missing number:

11.

| | | | |
|---|----|----|---|
| | 3 | 4 | |
| 7 | 31 | 29 | 5 |
| 8 | ? | 20 | 6 |
| | 9 | 2 | |

 (1) 87 (2) 101 (3) 78
(4) 99 (5) 107

12.

| | | | |
|---|----|----|---|
| | 5 | 3 | |
| 8 | 89 | 90 | ? |
| 2 | 53 | 60 | 4 |
| | 7 | 6 | |

 (1) 7 (2) 8 (3) 9
(4) 10 (5) 11

Qs. 13 and 14 are based on the word **FRATERNITY**.

13. Find the word that is different from others?

(1) TERRAIN (2) ETERNITY (3) TRAIN

(4) REFRAIN (5) TREATY

14. If the letters occurring in the word were arranged alphabetically, which letter would be the fifth one from the beginning?

(1) I (2) N (3) F (4) R (5) E

Qs. 15 and 16 are based on the word '**DEBONAIR**'.

15. Which word from (1), (2), (3), (4) and (5) is different from the others?

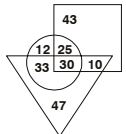
(1) BROAD (2) DRAIN (3) REBIND

(4) DEBAR (5) RIDER

16. How many sets of two letters each have as many letters between them as in the alphabets?

(1) None (2) 2 (3) 3 (4) 4 (5) 5

Qs. 17-20. In a group of students, three activities are being conducted. The square represents the students who have opted for dramatics, the circle is for those who are in N.C.C. and the triangle is for students who are working on science projects.



17. The total number of students who are in dramatics is how much more/less than the total number of students in N.C.C.?

(1) 8 more (2) 18 more (3) 2 less

(4) 12 less (5) They are equal

18. What is the percentage of students who are working on science projects?

(1) 50% (2) 54% (3) 64% (4) 60% (5) None of these

19. What is the percentage of students who have opted for all the three activities?

(1) 18% (2) 15% (3) 17% (4) 21% (5) None of these

20. The percentage of students who have one activity only is how much more than the percentage of students who have two activities?

(1) 9% (2) 14% (3) 11% (4) 7% (5) Can't say

Qs. 21-25. Find the odd-man out:

21. (1) DGJM (2) HKNP (3) LORU

(4) SVYB (5) FILO

22. (1) ZXUS (2) PNKI (3) RPMK

(4) HFCA (5) QNLJ

23. (1) WUQS (2) TRNP (3) LJEG

(4) QOKM (5) HFBD

24. (1) JmlK (2) PsrQ (3) FjiH

(4) MpoN (5) DgfE

25. (1) HM23 (2) EQ22 (3) CW26

(4) KU32 (5) DR22

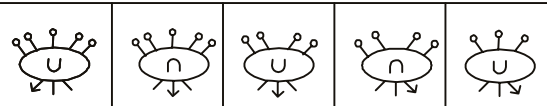
NON-VERBAL SERIES

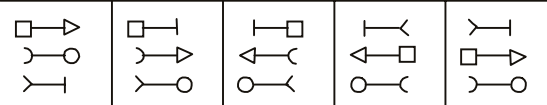
Given below are two sets of figures, the problem figures and the answer figures marked A, B, C, D and E. You have to find out which of the answer figures would come next in the series of problem figures.

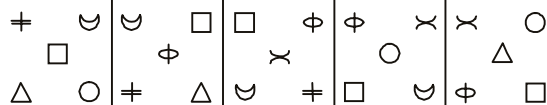
PROBLEM FIGURES

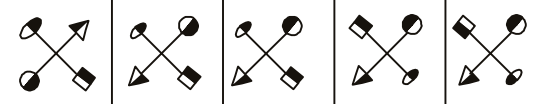
ANSWER FIGURES

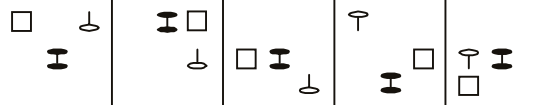
A B C D E

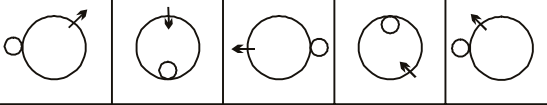
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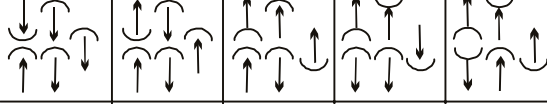
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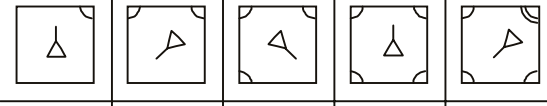
28. 


29. 


30. 

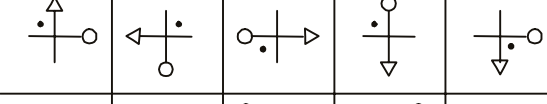
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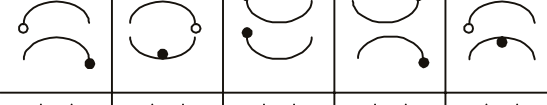
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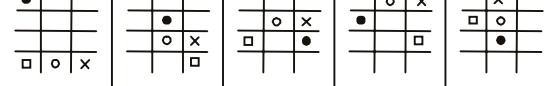
33. 


34. 

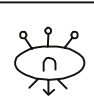
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36. 

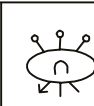
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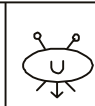
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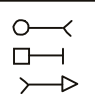
A 

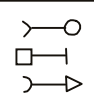
B 

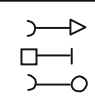
C 

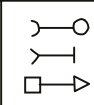
D 

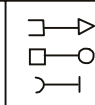
E 

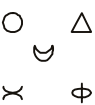
A 


B 


C 

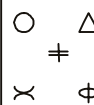
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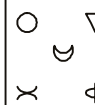
E 


A 


B 


C 

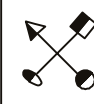
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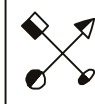
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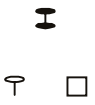
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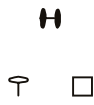
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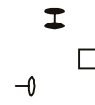
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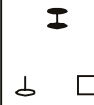
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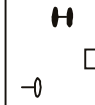
E 


A 

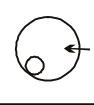
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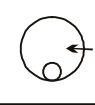
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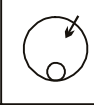
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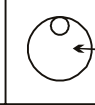
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A 

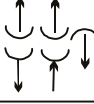
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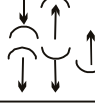
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D 

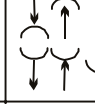
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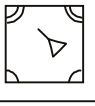
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B 


C 

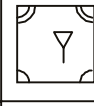
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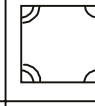
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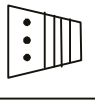
A 

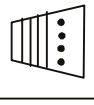
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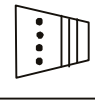
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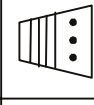
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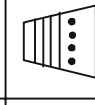
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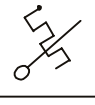
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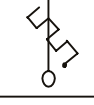
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C 

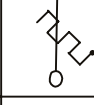
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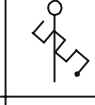
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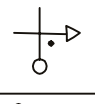
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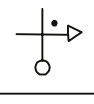
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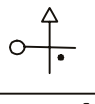
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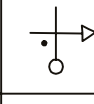
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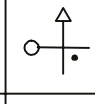
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A 

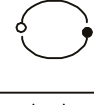
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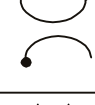
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D 


E 


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
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
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
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
E 

A 

B 

C 

D 

E 

| | | | | | |
|-----|--|--|--|--|--|
| 39. | | | | | |
| 40. | | | | | |
| 41. | | | | | |
| 42. | | | | | |
| 43. | | | | | |
| 44. | | | | | |
| 45. | | | | | |
| 46. | | | | | |
| 47. | | | | | |
| 48. | | | | | |
| 49. | | | | | |
| 50. | | | | | |
| 51. | | | | | |
| 52. | | | | | |

| A | B | C | D | E |
|---|---|---|---|---|
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| | | A | B | C | D | E |
|-----|--|---|---|---|---|---|
| 53. | | | | | | |
| 54. | | | | | | |
| 55. | | | | | | |

The second figure (II) in each of the following questions bears a certain relationship with figure I. Find out from A, B, C, D and E the figure to replace question-mark so that IV bears the same relationship with III.

PROBLEM FIGURES

ANSWER FIGURES

| | I | II | III | IV | A | B | C | D | E |
|-----|------------|------------|------------|----|------------|------------|------------|------------|------------|
| 56. | | | | ? | | | | | |
| 57. | | | | ? | | | | | |
| 58. | | | | ? | | | | | |
| 59. | G P R F | H F b G | J Q K C | ? | X O O r | X O O r | X O O r | X O O r | X O O r |
| 60. | | | | ? | | | | | |
| 61. | | | | ? | | | | | |

Find the odd-man out:

| | A | B | C | D | E |
|-----|---|---|---|---|---|
| 62. | | | | | |
| 63. | | | | | |
| 64. | | | | | |
| 65. | | | | | |
| 66. | | | | | |

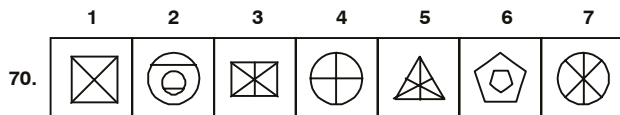
In questions 67 and 68, find the answer figure in which the given figure is embedded:

| | A | B | C | D | E |
|-----|---|---|---|---|---|
| 67. | | | | | |
| 68. | | | | | |

Qs. 69-70. In each question, a series of figures is given which can be grouped into classes. Select the right group from options A, B, C and D.

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|-----|---|---|---|---|---|---|---|
| 69. | | | | | | | |

- A. 1, 3, 5 : 2, 6 : 4, 7 B. 1, 4 : 2, 5 : 3, 6, 7
C. 1, 5, 6 : 2, 7 : 3, 4 D. 1, 6 : 2, 3 : 4, 5, 7



- A. 1, 5, 7 : 2, 6 : 3, 4 B. 2, 6 : 3, 7 : 1, 4, 5
C. 1, 4, 7 : 3, 5 : 2, 6 D. 1, 4 : 2, 6 : 3, 5, 7

Qs. 71-75. Match the set of three circles with the questions on the basis of relationship among the items given in questions.

71. dance : music : dramatics **A.**
72. snore : dream : sleep **B.**
73. shell : sea : pearl **C.**
74. brown : horse : cow **D.**
75. musk : fox : deer **E.**

ANSWERS AND EXPLANATIONS

- (5) The series would be, $2 \times 3 - 1 = 5$; $5 \times 3 - 1 = 14$; $14 \times 3 - 1 = 41$; $41 \times 3 - 1 = 122$; $122 \times 3 - 1 = 365$.
- (2) The given series is, $1^2 + 1 = 2$; $2^2 + 2 = 6$; $3^2 + 3 = 12$...; the new series would be, $5^2 + 5 = 30$; $6^2 + 6 = 42$; $7^2 + 7 = 56$; $8^2 + 8 = 72$...
- (2) The given series is $2^2 - 1 = 3$; $3^2 - 1 = 8$; $4^2 - 1 = 15$; $5^2 - 1 = 24$...; the new series would be, $7^2 - 1 = 48$; $8^2 - 1 = 63$; $9^2 - 1 = 80$; $10^2 - 1 = 99$; $11^2 - 1 = 120$.
- (1) It is a series of prime numbers, hence 23; 29; 31; 37; 41; 43.
- (3) The given series is $2 \times 1 = 2$; $2 \times 2 = 4$; $4 \times 3 = 12$; $12 \times 4 = 48$... The new series would be, $3 \times 1 = 3$; $3 \times 2 = 6$; $6 \times 3 = 18$; $18 \times 4 = 72$; $72 \times 5 = 360$...
- (3) Add 7, 14, 21, 28 ... to numbers respectively, $19 + 7 = 26$; $26 + 14 = 40$...
- (2) It is a series of prime numbers, hence 33 ought to be 31.
- (3) The series is $23 \times 3 = 69$; $23 \times 4 = 92$; $23 \times 5 = 115$.
- (3) Each number is $1\frac{1}{2}$ of the preceding number,
 $12 \times 1\frac{1}{2} = 18$.

- (1) Ought to be 31, as 7, 14, 21, 28 have been added respectively.
- (4) The arrangement would be $(8 \times 9) + 8 + 9 = 99$.
- (3) The arrangement is $9^2 + 3^2$, i.e. $81 + 9 = 90$.
- (2) It has an extra 'E'.
- (2) The alphabetical arrangement would be AEFINRRRTTY.
- (5) The word has one 'R' only.
- (4) DE, DB, ON and AE.
- (1) Dramatics $43 + 25 + 30 + 10 = 108$;
N.C.C. $12 + 25 + 33 + 30 = 100$.
- (4) Total students (all numbers added) 200, science projects, $33 + 30 + 10 + 47 = 120$. Hence 60%.
- (2) 30 out of 200, i.e. 15%.
- (3) One activity, 102, two activities 80. The difference is 22, i.e. 11%.
- (2)
- (5)
- (3)
- (3)
- (1) Give letters numbers according to their place in the alphabetical order. All the others are totals of the two numbers. This one should be $8 + 13 = 21$.

For the next type of questions, watch each given figure very carefully. The different figures in the same question may have different movements. Some may move clockwise, some anti-clockwise, some right and left or up or down or along certain points. The pace may also be different, it could be regular, or an added step in each next block or half and quarter. Something may be added or dropped also; the figures may rotate or turn upside down. Some figures may interchange places. Keep all these things in mind to find out the right answer.

- (D)
- (B)
- (D)
- (E)
- (A)
- (C)
- (A)
- (C)
- (D)
- (B)
- (C)
- (A)
- (C)
- (D)
- (A)
- (C)
- (A)
- (C)
- (A)
- (D)
- (B)
- (B)
- (E)
- (A)
- (B)
- (A)
- (C)
- (A)
- (D)
- (C)
- (B)
- (D)
- (E) All the three are different items.
- (C) Both the activities take place during sleep.
- (A) Shell is in sea and pearl in shell.
- (B) Some of these different animals are brown.
- (D) Some deer may have musk, the other one is independent.

Test of Reasoning-2

TYPE I

In each question given below, two statements are given followed by four conclusions numbered I, II, III and IV. You have to take the two given statements to be true even if they appear at variance with commonly known facts. Read all the conclusions and then decide which of them logically follow from the statements given, disregarding commonly known facts.

Statements:

1. 1. Some clouds are planets.
2. All planets are nebulae.

Conclusions:

- I. No cloud is a nebulae.
- II. All nebulae are planets.
- III. Some clouds are not nebulae.
- IV. Some clouds are nebulae.
- (A) Only I and II follow.
- (B) Either I or II follows.
- (C) Only III and IV follow.
- (D) Either III or IV follows.
- (E) None follows.

Statements:

2. 1. All stones are gems.
2. Some gems are marbles.

Conclusions:

- I. All gems are stones.
- II. Some stones are marbles.
- III. Some marbles are not stones.
- IV. No stone is marble.
- (A) Either I or III follows.
- (B) Either II or IV follows.
- (C) Only I follows.
- (D) Only III and IV follow.
- (E) Only III follows.

Statements:

3. 1. All Americans are Negroes.
2. All Negroes are Europeans.

Conclusions:

- I. All Americans are Europeans.
- II. Every Negro is American.
- III. Every American is either a European or a Negro.
- IV. Some Negroes are not American.
- (A) Only I follows.
- (B) Only II follows.
- (C) Only III follows.
- (D) Only IV follows.
- (E) None follows.

Statements:

4. 1. All tigers are elephants.
2. All dogs are tigers.

Conclusions:

- I. All elephants are tigers.
- II. All tigers are dogs.
- III. All dogs are elephants.
- IV. All elephants are dogs.
- (A) Only I follows.
- (B) Only II follows.
- (C) Only III follows.
- (D) Only IV follows.
- (E) None follows.

Statements:

5. 1. Some pentagons have seven sides.
2. Some sides are curved.

Conclusions:

- I. All seven-sided figures are curved.
- II. Some pentagons have more than seven sides.
- III. Some pentagons have curves on all the seven sides.
- IV. Other figures do not have curved sides.
- (A) Only I follows.
- (B) Only II follows.
- (C) Only III follows.
- (D) Only IV follows.
- (E) None follows.

Statements:

6. 1. All plates are cups.
2. Some bottles are plates.

Conclusions:

- I. Some plates are not bottles.
- II. Some bottles are cups.
- III. All cups are plates.
- IV. Some plates are not cups.
- (A) Only I follows.
- (B) Only II follows.
- (C) Only III follows.
- (D) Only IV follows.
- (E) None follows.

Statements:

7. 1. Cows are either green or blue.
2. All green objects can fly.

Conclusions:

- I. Cows are white also.
- II. Some cows can fly.
- III. Red objects cannot fly.
- IV. Some cows cannot fly.

- (A) Only I and II follow.
- (B) Only II and III follow.
- (C) Only I and III follow.
- (D) Only IV follows.
- (E) Either II or III follows.

Statements:

8. Rabbit is faster than fox but slower than horse which is not as fast as tortoise.
2. Panther is faster than deer but slower than snail which is slower than fox.

Conclusions:

- I. Deer is the slowest.
- II. Snail is slower than horse.
- III. Tortoise is the fastest.
- IV. Rabbit is faster than panther.
- (A) Only I and II follow.
- (B) Either III or IV follows.
- (C) Only II, III and IV follow.
- (D) All the four follow.
- (E) Only any one of the four follows.

TYPE II

In each question below, a statement is followed by three assumptions numbered I, II and III. An assumption is something supposed or taken for granted. You have to consider the statement and the assumptions and then decide which of them is/are implicit in the statement. Then decide which of the answers is the correct one.

Statement:

9. The government is rather particular about saving tigers.

Assumptions:

- I. These man-eaters can help in solving the problem of over-population.
- II. They are very much in demand by the circus people.
- III. They are harmless creatures.
- (A) Only I is implicit.
- (B) Only II is implicit.
- (C) Only III is implicit.
- (D) Any one of the three is implicit.
- (E) None is implicit.

Statement:

10. It is reported that there are more than thirty militant organisations in Kashmir.

Assumptions:

- I. Kashmir is too big a State to be covered by one or two militant groups.
- II. These groups do not have much rapport amongst them.
- III. All the militant groups have been sent by the Government of Pakistan.
- (A) Only I is implicit.
- (B) Only II is implicit.
- (C) Only III is implicit.
- (D) All are implicit.

- (E) None is implicit.

Statement:

11. India's first open-heart surgery was performed at the All India Institute of Medical Sciences (AIIMS).

Assumptions:

- I. AIIMS is a heart hospital only.
- II. No other medical institute in India is as good as the AIIMS.
- III. The operation was successful.
- (A) Only I is implicit.
- (B) Only II is implicit.
- (C) Only III is implicit.
- (D) Only any one of the three is implicit.
- (E) None is implicit.

Statement:

12. Kuwait has stopped issuing visas to Pakistanis alleging that they posed a threat to the American soldiers in the Gulf country. (A Report)

Assumptions:

- I. Kuwait had proofs that the Pakistanis entering their country were 'extremist elements'.
- II. America is concerned about 'Peace' in this country.
- III. Pakistanis are bent upon getting rid of the American Forces in the Gulf countries.
- (A) Only I is implicit.
- (B) Only I and II are implicit.
- (C) Only III is implicit.
- (D) All the three are implicit.
- (E) None is implicit.

Statement:

13. In spite of being deprived of arms since birth, a youngman, Doongaram insists on earning his living and has learnt to write and paint with his feet.

Assumptions:

- I. This brave boy has a lot of self-confidence and self-respect.
- II. He is being helped by the society.
- III. The government has provided him with a good job.
- (A) Only I is implicit.
- (B) Only II is implicit.
- (C) Either I or II is implicit.
- (D) Both I and III are implicit.
- (E) All are implicit.

Statement:

14. The police of all the districts of State X got instructions to keep a close watch on the activities of groups associated with various religions.

Assumptions:

- I. These groups were involved in certain underworld activities.
- II. The religious group might clash and start a chain of communal riots.
- III. A network of these extremists associated with religious groups was created to disturb peace in the State.

- (A) Only I and II are implicit.
- (B) Only I and III are implicit.
- (C) Either II and III are implicit.
- (D) All are implicit.
- (E) Only any one from the three is implicit.

Statement:

15. The last year champion Mr A feels that this year he faces a challenge greater than ever.

Assumptions:

- I. The competition last year hadn't been tough, hence victory had been easy.
- II. Some new competitors are extremely good.
- III. The other players have improved their game immensely.
- (A) Either I or II is implicit.
- (B) Either II or III or both are implicit.
- (C) Both I and II are implicit.
- (D) Only I is implicit.
- (E) None is implicit.

TYPE III

Each of the questions given below has three statements followed by four conclusions numbered I, II, III and IV. Take the statements to be true even if they appear at variance with commonly known facts, then decide which of the conclusions logically follow from the statements.

Statements:

- 16. 1. All coolers are ovens.
- 2. All fans are stoves.
- 3. All ovens are fans.

Conclusions:

- I. All coolers are stoves.
- II. All ovens are stoves.
- III. All coolers are fans.
- IV. Some stoves are coolers.
- (A) Only I, II and III follow.
- (B) Only I, III and IV follow.
- (C) Only II, III and IV follow.
- (D) All the four follow.
- (E) Either I or IV follows.

Statements:

- 17. 1. Some goats are dogs.
- 2. All dogs are black.
- 3. Some black creatures are tailless.

Conclusions:

- I. Some goats are tailless.
- II. All dogs are tailless.
- III. Some dogs are tailless.
- IV. Some goats are not black.
- (A) None follows.
- (B) Only II follows.
- (C) Only I follows.
- (D) Only III follows.
- (E) Only IV follows.

Statements:

- 18. 1. All rivers are canals.
- 2. All dams are waterfalls.
- 3. Some waterfalls are rivers.

Conclusions:

- I. All waterfalls are dams.
- II. Some waterfalls are canals.
- III. All canals are rivers.
- IV. No dam is a river.
- (A) Only I follows.
- (B) Only II follows.
- (C) Only III follows.
- (D) Only I and III follow.
- (E) All the four follow.

Statements:

- 19. 1. All fat persons can sing.
- 2. Some medicos put on caps.
- 3. All those who wear caps are fat.

Conclusions:

- I. Some medicos can sing.
- II. Some medicos are not fat.
- III. All those who wear caps can sing.
- IV. All singers are fat.
- (A) Only I and II follow.
- (B) Only III and IV follow.
- (C) Only I, II and III follow.
- (D) Only I, III and IV follow.
- (E) All the four follow.

Statements:

- 20. 1. The Gorkhas are taller than the Egyptians but shorter than the Spanish.
- 2. The Mexicans are taller than the Negros but shorter than the Egyptians.
- 3. The Chinese are shorter than the Russians but taller than the Spanish.

Conclusions:

- I. The Chinese are taller than the Mexicans.
- II. The Russians are the tallest.
- III. The Gorkhas are not as tall as the Mexicans are.
- IV. The Egyptians are taller than the Spanish.
- (A) Only I and II follow.
- (B) Only III and IV follow.
- (C) Only I, II and III follow.
- (D) Either I, II or III, IV follow.
- (E) Only II, III and IV follow.

TYPE IV

In each of the following questions, an interrogative statement is given followed by two arguments AI and AII. Mark your answer:

- (A) if only AI and not AII is forceful.
- (B) if only AII and not AI is forceful.
- (C) both AI and AII are forceful.
- (D) either AI or AII is forceful.
- (E) neither AI nor AII is forceful.

21. Are we eating better and healthier food than the stuff the previous generations had?

- AI. Yes, all the food is processed in a very scientific way, hence it is not contaminated.
- AII. No, since they had less pollution, less adulteration and no chemical manures or harmful pesticides, the food-stuff was very pure and nutritious.
- (A) ☐ (B) ☐ (C) ☐ (D) ☐ (E) ☐
22. Is democracy preferable to monarchy?
- AI. Yes, even an illiterate person can become a Minister.
- AII. No, all monarchs were cruel and greedy.
- (A) ☐ (B) ☐ (C) ☐ (D) ☐ (E) ☐
23. Does India need modernization in the existing tourism-related infrastructure?
- AI. Yes, we need initiative on promotion of tourism in the present-day competitive world as it is a great source of income.
- AII. No, there are so many other problems that need immediate attention.
- (A) ☐ (B) ☐ (C) ☐ (D) ☐ (E) ☐
24. Is there any need of saffronisation of education in the name of going back to the Vedic period?
- AI. Yes, those were the golden days in the history of India.
- AII. No, in a multi-linguistic, multi-cultural and multi-religious country like us, it would be hazardous and we would be left much behind in the race of modern technology.
- (A) ☐ (B) ☐ (C) ☐ (D) ☐ (E) ☐
25. In case a Chief Minister leaves the chair, should his wife take over the post?
- AI. Yes, she is his better-half hence she would manage the affairs in a better way.
- AII. No, in a democratic set-up, every person who aspires for this or a likewise post, must come through elections.
- (A) ☐ (B) ☐ (C) ☐ (D) ☐ (E) ☐
26. Are multi-national companies a challenge to our factories and our products?
- AI. Yes, their products are cheaper.
- AII. No, the feeling of Swadeshi in us is much deep-rooted.
- (A) ☐ (B) ☐ (C) ☐ (D) ☐ (E) ☐

TYPE V

In each of the questions given below, Assertion 'A' is followed by reasons RI and RII. Apply the reasons to assertion and mark your answers as follows:

- (A) Only RI and not RII is the reason for A.
 (B) Only RII and not RI is the reason for A.
 (C) Both RI and RII are the reasons for A.
 (D) Either RI or RII is the reason for A.
 (E) Neither RI nor RII is the reason for A.
27. A. Pakistan should be declared a terrorist State by the International Authorities.
- RI. In spite of all the efforts by India and other friendly countries, it continues to send militants to our

country.

- RII. The rights of minority are not respected in Pakistan and are constantly violated.
- (A) ☐ (B) ☐ (C) ☐ (D) ☐ (E) ☐
28. A. In most of the rural parts of the county, the Dalits do not feel safe.
- RI. When they are all of a sudden assaulted, there is no agency to protect them.
- RII. They are still treated as the down-trodden lot and poverty and illiteracy forces them to be constantly exploited.
- (A) ☐ (B) ☐ (C) ☐ (D) ☐ (E) ☐
29. A. In spite of producing a bumper crop, the farmers still seem far from prosperity promised to them.
- RI. The crop, although quantitative, is not qualitative.
- RII. The price fixed for the crop is not appropriate.
- (A) ☐ (B) ☐ (C) ☐ (D) ☐ (E) ☐
30. A. The post-mortem report of a body crushed by a train revealed that the man had been murdered and then thrown on the railway track.
- RI. The killers wanted the incident to look like an accident.
- RII. They wanted it to be registered as a case of suicide.
- (A) ☐ (B) ☐ (C) ☐ (D) ☐ (E) ☐
31. A. Young women now-a-days prefer to be clad in jeans rather than in traditional saris.
- RI. Jeans give a smart look to the wearer while the sari looks absolutely outdated.
- RII. Saris are more expensive than jeans.
- (A) ☐ (B) ☐ (C) ☐ (D) ☐ (E) ☐

TYPE VI

Given below is a paragraph followed by some inferences drawn from its contents. Mark your answers as:

- (A) if the inference is true.
 (B) if it is probably true.
 (C) if doubtful as the data provided is inadequate.
 (D) if it is probably false.
 (E) if it is definitely false.

If one watches a film in an old cinema hall, it is taxable entertainment, while watching the same film in a multiplex theatre at four times the usual rate, it becomes promotion of tourism and need not be taxed. The Gujarat government has exempted the State's multiplex theatres from all sorts of taxes while the conventional cinema halls are gradually going out of business under the pressure of competition and nearly 51 per cent taxes. During the last three years, the concept of multiplex theatres with multiple screens showing different films has been catching up while the cinema halls have competition from video parlours and cable television too.

32. The items that come in the category of promotion of tourism project are exempted from taxes.

- (A) ☐ (B) ☐ (C) ☐ (D) ☐ (E) ☐
33. The multiplex theatres came into existence three years back.

- (A) ☐ (B) ☐ (C) ☐ (D) ☐ (E) ☐

34. The spectators do not have to buy high rate tickets in the multiplex theatres as they are exempted from taxes.

- (A) ☐ (B) ☐ (C) ☐ (D) ☐ (E) ☐

35. The conventional cinema owners are converting their halls into multiplex theatres.

- (A) ☐ (B) ☐ (C) ☐ (D) ☐ (E) ☐

36. Cable television has adversely affected the business of old cinema halls.

- (A) ☐ (B) ☐ (C) ☐ (D) ☐ (E) ☐

37. The government has been feeling concerned about the complaints made by the owners of the conventional cinema halls.

- (A) ☐ (B) ☐ (C) ☐ (D) ☐ (E) ☐

TYPE VII

In each of the questions given below, a problem-related statement is followed by three courses of action that are proposed as a solution to the problem or as a follow-up. Your task is to find out which of the courses of actions should be pursued.

Statement:

38. Many old people are treated like an unwanted encumbrance by their tight-fisted children, some of them not even getting sufficient medical help that they need at their age.

Courses of action:

- I. The government and NGOs should work together towards building old homes.
- II. There should be some arrangement to provide them lawyers who could fight their case and get the amount of maintenance fixed for them.
- III. The children of such people should be punished by law.

- (A) Only I and II.
(B) Only II and III.
(C) Only I and III.
(D) Only III.
(E) All the three.

Statement:

39. Most of the big dons control the criminal network from overseas where they permanently stay.

Courses of action:

- I. A close watch should be kept on their henchmen.
- II. The governments of such countries should be requested to hand-over those dons to us.
- III. There should be no anticipatory or any other bail for the henchmen who are nabbed by the police.

- (A) Only I and II.
(B) Only II and III.
(C) Only I and III.
(D) All the three.
(E) Only II.

Statement:

40. It has been observed that after a local fair where lacs

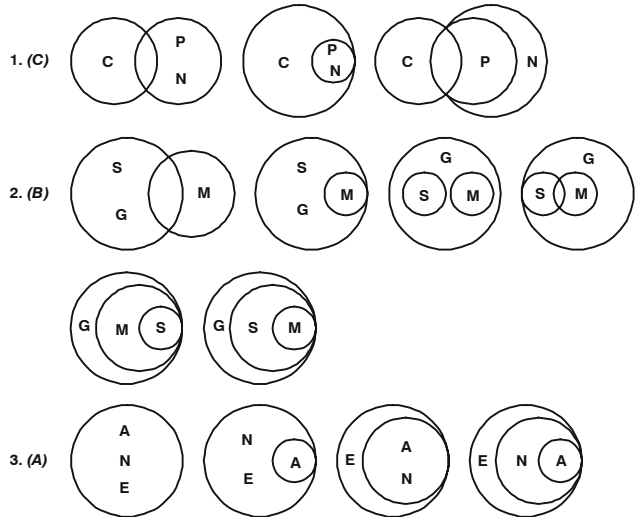
of people throng the 'mela' ground, epidemics like typhoid and malaria become rampant.

Courses of action:

- I. The mela authorities should be extra alert regarding cleanliness and sanitation arrangements.
 - II. The local fair should be stopped.
 - III. More hospitals should be opened in the vicinity.
- (A) Only I and II.
(B) Only II and III.
(C) Only III.
(D) Only I.
(E) Only II.

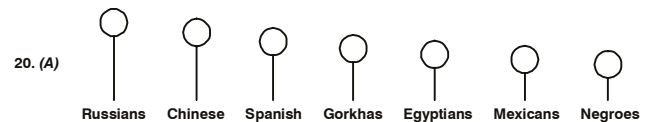
ANSWERS AND EXPLANATIONS

The questions in Type I and Type III are best solved with the help of venn diagrams. Make diagrams of all the probable situations and then reach a fool-proof conclusion. Here are a few examples to help you, each circle representing one item.



4. (C) Same as above, just treat the first statement as the second and the second as first.

5. (E) 6. (B) 7. (C) 8. (D)
9. (E) 10. (B) 11. (E) 12. (D)
13. (A) 14. (C) 15. (B) 16. (D)
17. (E) 18. (B) 19. (C)



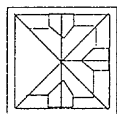
21. (B) 22. (E) 23. (A) 24. (B)
25. (B) 26. (E) 27. (A) 28. (C)
29. (B) 30. (D) 31. (E) 32. (B)
33. (B) 34. (E) 35. (C) 36. (A)
37. (D) 38. (A) 39. (D) 40. (D)

Test of Reasoning

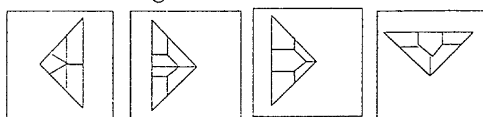
Solved Paper of SSC Exam Matric level held on 13.5.2001

1. In the given question, a part of the figure is missing. Select one of the response figures which exactly fits into the missing part of the question figure.

Question Figure



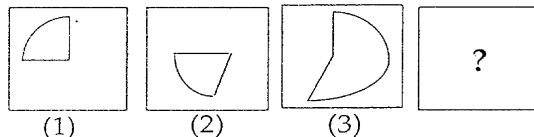
Answer Figures



(A) (B) (C) (D)

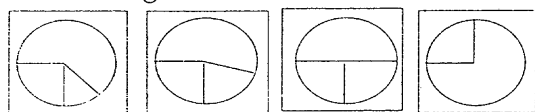
2. Fig. 1, 2 and 3 are combined to a regular form. Select the correct figure that will be formed from the Answer Figures.

Question Figures



(1) (2) (3)

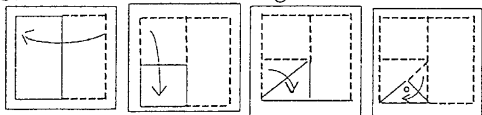
Answer Figures



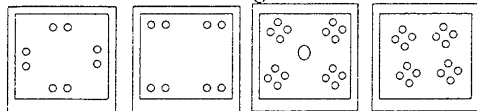
(A) (B) (C) (D)

Directions: In question nos. 3 and 4, a piece of paper is folded and punched as shown below. From the given responses indicate how it will appear when opened.

3. Problem Figures

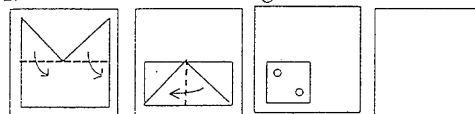


Answer Figures

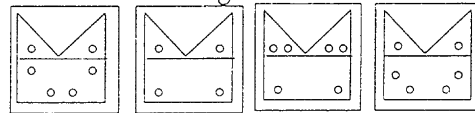


(A) (B) (C) (D)

4. Problem Figures



Answer Figures

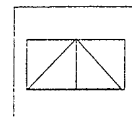


(A) (B) (C) (D)

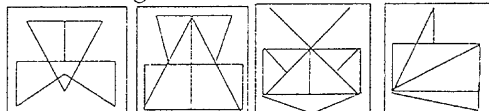
Directions: In question nos. 5 to 6, from the given answer figures, select the one in which the question figure is hidden/embedded.

5.

Question Figure



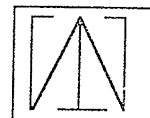
Answer Figures



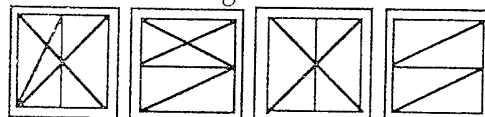
(A) (B) (C) (D)

6.

Question Figure



Answer Figures



(A) (B) (C) (D)

7. In the following list of numbers how many 4's are followed by 5 but not preceded by 6?

2 1 4 5 2 1 3 0 7 6 1 9 4 0 3 6 4 5 4 9 5 8 2 5 3 7 6 8 5 4 5
6 7 4

(A) 5 (B) 6 (C) 4 (D) 2

8. In the following list of letters how many X's are

followed by Y and preceded by W?

A C E G I W X Y K M O Q S U W Y W X Y
Z X V T R P N W X Y L F D W X Y B

(A) 4 (B) 6 (C) 2 (D) 5

9. In the following list of letters how many P's are followed by R and preceded by S?

S J A S P R B K T D U L C S P R D M V C N E S
P R F O W B P G S P R H Q X A Z Y R I S P R

(1) 4 (2) 3 (3) 5 (4) 6

Directions: (Q. No. 10 to 14) Below are given letters A to Z. Under each capital letter a small letter is written which is to be used as a code for capital letter.

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | B | C | D | E | F | G | H | I | J | K | L | M | N |
| j | o | e | s | k | v | a | w | d | r | p | c | t | x |
| O | P | Q | R | S | T | U | V | W | X | Y | Z | | |
| b | l | h | y | m | f | z | q | g | n | u | i | | |

In each of the following questions a group of six capital letters is given and its code equivalent is given in one of the columns A, B, C, D. Your answer is A, B, C or D, according to your finding the code equivalent of the group of letters in it.

| | | | |
|--------|--------|--------|--------|
| (A) | (B) | (C) | (D) |
| lkcni | wstvdj | hxkutr | ymswtx |
| lmjvcf | ncsolr | hxzsjn | algpkj |
| lmpeon | nstryj | cbvwtx | vbfnie |
| bygavs | xhiplg | hxzbsd | abuklm |
| vdclmw | gkcbom | fiecrj | lmvjfc |

10. XDMJRA

11. GOYEPS

12. PSAFLT

13. TZCLJW

14. QNUBDI

15. **Directions:** In question no. 15, some numbers are given in different columns. Which of the following columns are connected with each other in some way?

| | | | | | |
|--------|----|----|-----|----|----|
| Column | I | II | III | IV | V |
| | 9 | 11 | 18 | 27 | 3 |
| | 5 | 2 | 10 | 15 | 5 |
| | 7 | 8 | 14 | 21 | 12 |
| | 3 | 10 | 6 | 9 | 22 |
| | 11 | 14 | 22 | 33 | 34 |

(A) Columns I, II and III

(B) Columns I, III and V

(C) Columns II, III and IV

(D) Columns I, III and IV

Directions: In question nos. 16 and 17, there is an address which has been reproduced against (A), (B), (C) and (D). Of them, three have some mistakes or the other while one is EXACTLY the same as given below. You are to choose the one as your answer which is EXACTLY the same reproduction of the given address.

16. Lakshmi Narain
3468/78 Car Street
Jolarpet

(A) Lakshmi Naraian
3468/78 Car Street
Jolarpet

(B) Lakshmi Narayan
3648/78 Car Street
Jolarpet

(C) Lakshmi Narain
3468/78 Car Street
Jolarpet

(D) Lakshmi Narayanan
3468/78 Car Street
Jolarpet

17. P.S.S. Thamaraikani

14, Cudalore Road

Panruti - 628 001

(A) P.S.S. Thamaraikani
14, Cuddalore Road
Panruti - 628 001

(B) P.S.S. Thamaraikani
14, Cudalore Road
Panruti - 628 010

(C) P.S.S. Thamaraikani
14, Cudalore Road
Panruti - 628 001

(D) P.S. Thamaraikani
14, Cudalore Road
Panruti - 628 001

Directions: In question nos. 18 to 21, a word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternative are represented by two classes of alphabets as in the 2 matrices given below. The columns and rows of Matrix I are numbered from 0 to 4 and that of Matrix II from 5 to 9. A letter can be represented first by its row and next by column number. For example N can be represented by 02, 21 etc, 'O' can be represented by 65, 96 etc. Similarly you have to identify the correct set for the word given in each question.

MATRIX - I

| | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| 0 | P | W | N | I | S |
| 1 | I | S | P | W | N |
| 2 | W | N | I | S | P |
| 3 | S | P | W | N | I |
| 4 | N | I | S | P | W |

MATRIX - II

| | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|
| 5 | A | E | R | O | H |
| 6 | O | H | A | E | R |
| 7 | E | R | O | H | A |
| 8 | H | A | E | R | O |
| 9 | R | O | H | A | E |

18. PENS

(A) 12, 67, 21, 30 (B) 43, 56, 13, 23

(C) 43, 56, 21, 42 (D) 31, 57, 21, 42

19. HIPS

(A) 85, 41, 24, 11 (B) 66, 21, 24, 11

(C) 67, 41, 24, 42 (D) 78, 34, 23, 04

20. SORROW

(A) 23, 96, 69, 88, 65, 33 (B) 23, 43, 14, 33, 65, 78

(C) 11, 66, 69, 65, 59, 97 (D) 42, 65, 95, 88, 77, 44

21. WEAR

(A) 44, 68, 67, 87 (B) 44, 87, 98, 69

(C) 20, 86, 67, 87 (D) 32, 87, 78, 95

Directions: In question nos. 22 to 26, a word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternative are represented by two classes of alphabets as in the 2 matrices given below. The columns and rows of Matrix I are numbered from 0 to 4 and that of Matrix II from 5 to 9. A letter can be represented first by its row and next by column number. For example 'C' can be represented by 02, 21 etc, 'T' can be represented by 65, 96 etc. Similarly you have to identify the correct set for the word given in each question.

MATRIX - I

| | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| 0 | D | V | C | P | M |
| 1 | P | M | D | V | C |
| 2 | V | C | P | M | D |
| 3 | M | D | V | C | P |
| 4 | C | P | M | D | V |

MATRIX - II

| | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|
| 5 | S | A | U | T | J |
| 6 | T | J | S | A | U |
| 7 | A | U | T | J | S |
| 8 | J | S | A | U | T |
| 9 | U | T | J | S | A |

22. DUST

(A) 00, 76, 86, 59 (B) 13, 76, 98, 89

(C) 21, 69, 55, 65 (D) 12, 57, 67, 58

23. CAMP

(A) 02, 57, 04, 34 (B) 14, 68, 42, 34

(C) 21, 75, 11, 41 (D) 40, 99, 42, 12

24. PUMP

(A) 03, 69, 03, 34 (B) 41, 88, 23, 02

(C) 10, 57, 23, 34 (D) 22, 95, 43, 41

25. PAST

(A) 10, 56, 41, 58 (B) 22, 68, 55, 66

(C) 34, 75, 67, 58 (D) 41, 99, 98, 88

26. JUMP

(A) 59, 57, 04, 03 (B) 66, 69, 11, 12

(C) 78, 88, 23, 23 (D) 85, 95, 30, 42

Directions: In question no. 27, a word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternative are represented by two classes of alphabets as in the 2 matrices given below. The columns and rows of Matrix I are numbered from 0 to 4 and that of Matrix II from 5 to 9. A letter from these matrices can be represented first by its row and next by column number. For example 'H' can be represented by 10, 22 etc, 'U' can be represented by 58, 89 etc. Similarly you have to identify the correct set for the word given in the question.

MATRIX - I

| | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| 0 | M | L | F | H | B |
| 1 | H | B | M | L | F |
| 2 | L | F | H | B | M |
| 3 | B | M | L | F | H |
| 4 | F | H | B | M | L |

MATRIX - II

| | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|
| 5 | L | K | S | U | N |
| 6 | U | N | I | K | S |
| 7 | K | S | U | N | I |
| 8 | N | I | K | S | U |
| 9 | S | U | N | I | K |

27. FISH

(A) 22, 81, 14, 69 (B) 33, 86, 88, 41

(C) 33, 88, 67, 22 (D) 02, 67, 34, 88

Directions: In question nos. 28 to 40 select the related letters/word/figure from the given alternatives.

28. Thermometer : Temperature :: Barometer : ?

(A) Heat (B) Weight

(C) Volume (D) Pressure

29. Create : Destroy :: Condense : ?

(A) Retreat (B) Expand

(C) Gradual (D) Initial

30. Cinema : Audience :: Church : ?

(A) Prayer (B) Meditation

(C) Loneliness (D) Congregation

31. Action : Reaction :: ?

(A) Stimulus : Response (B) Book : Cover

(C) Firing : Running (D) Birth : Death

32. Meat : Vegetarian :: Liquor : ?

(A) Insane (B) Teetotaler

(C) Introvert (D) Alcoholic

33. Monday : Moon :: Tuesday : ?

(A) Mercury (B) Mars

(C) Pluto (D) Jupiter

34. ate : tea :: top : ?

(A) pot (B) opt (C) tpo (D) pto

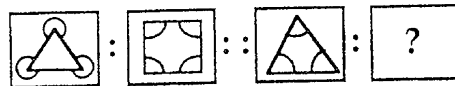
35. Stable : Horse :: Sty : ?

(A) Cow (B) Buffalo (C) Pig (D) Fly

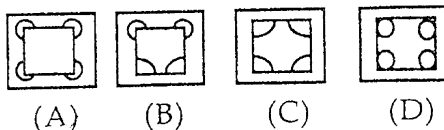
36. 37 : 23 :: 19 : ?

(A) 9 (B) 5 (C) 6 (D) 8

37. Question Figures

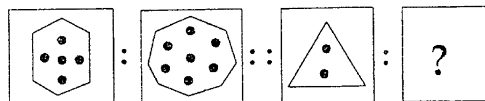


Answer Figures

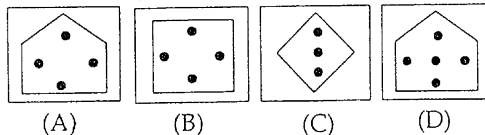


38.

Question Figures

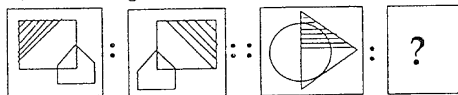


Answer Figures

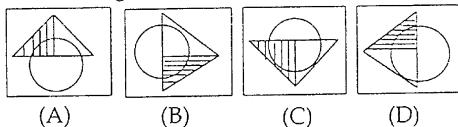


39.

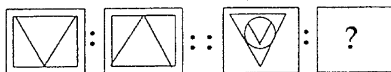
Question Figures



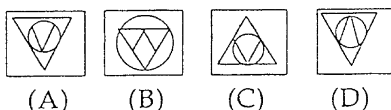
Answer Figures



40. Question Figures



Answer Figures



Directions: In question nos. 41 to 50, select the one which is different from the other three responses.

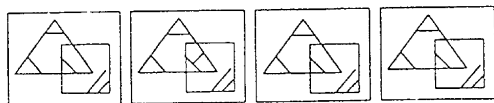
- | | |
|------------------|--------------|
| 41. (A) Rose | (B) Jasmine |
| (C) Lily | (D) Lotus |
| 42. (A) H G D C | (B) X W T S |
| (C) B A Z Y | (D) P O L K |
| 43. (A) A R E S | (B) I L U M |
| (C) A N P O | (D) U C O D |
| 44. (A) 36 - 63 | (B) 47 - 73 |
| (C) 58 - 85 | (D) 69 - 96 |
| 45. (A) (24, 43) | (B) (35, 54) |
| (C) (36, 64) | (D) (21, 14) |

46.



(A) (B) (C) (D)

47.



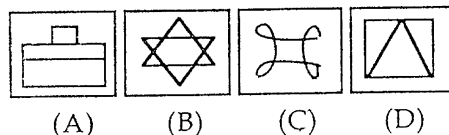
(A) (B) (C) (D)

48.



(A) (B) (C) (D)

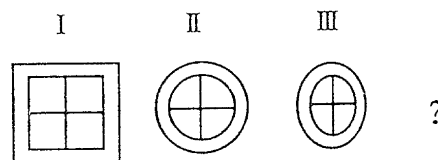
49.



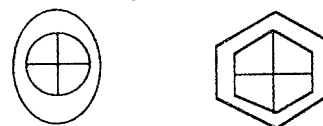
(A) (B) (C) (D)

50. Three figures (I, II, III) given below belong to a class as they have some characteristic in common. Which one of the figures (A, B, C, D) can be placed in their class?

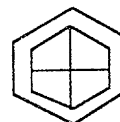
Question Figures



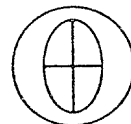
Answer Figures



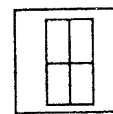
(A)



(B)



(C)



(D)

Directions: In question nos. 51 to 61, a series is given with one word, letter, number or figure missing. Choose the correct alternative from the given ones that will complete the series.

51. Z, W, T, ?, N, K

- | | |
|-------|-------|
| (A) R | (B) P |
| (C) Q | (D) S |

52. B, E, I, N, ?

- | | |
|-------|-------|
| (A) O | (B) S |
| (C) T | (D) U |

53. CDE, IJK, NOP, ?

- | | |
|---------|---------|
| (A) FGH | (B) RST |
| (C) TUV | (D) QRS |

54. YXW, UTS, QPO, ML __, __HG

- | | |
|---------|---------|
| (A) L M | (B) J I |
| (C) K I | (D) I H |

55. 2, 4, 12, 48, ?

- | | |
|---------|---------|
| (A) 224 | (B) 232 |
| (C) 240 | (D) 256 |

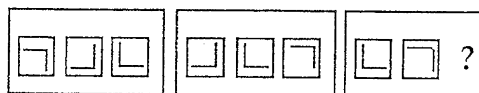
56. 1, 8, 27, 64, ?

- | | |
|---------|---------|
| (A) 343 | (B) 125 |
| (C) 216 | (D) 729 |

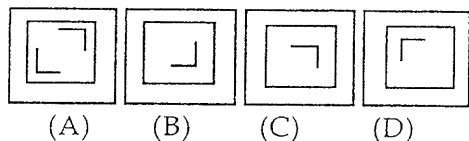
57. 109 74 76 25 11 ?

- (A) 36 (B) 0
(C) 4 (D) 11
58. 3, 9, 4, 16, 5, 25, 7, ?
(A) 64 (B) 81
(C) 49 (D) 77

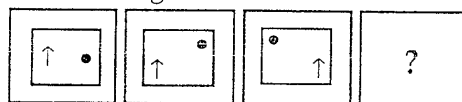
59. Question Figures



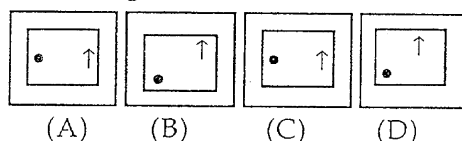
Answer Figures



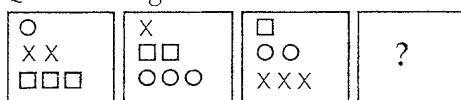
60. Question Figures



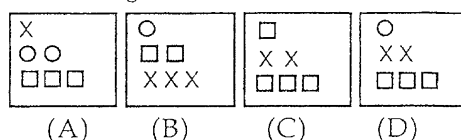
Answer Figures



61. Question Figures



Answer Figures



Directions: In question nos. 62 and 63, arrange the following words in meaningful order.

62. (1) Wood (2) Book (3) Factory
(4) Paper (5) Print
(A) 1, 3, 4, 5, 2 (B) 2, 5, 1, 3, 4
(C) 3, 1, 4, 5, 2 (D) 4, 2, 3, 1, 5
63. (1) Grapes (2) Winery
(3) Wine (4) Brewing
(5) Distillation
(A) 2, 1, 5, 4, 3 (B) 3, 5, 4, 2, 1
(C) 2, 1, 4, 3, 5 (D) 2, 1, 4, 5, 3

64. In the following words, the group of letters should not contain more than three vowels. Which of the following words does not conform to the rule?

- (A) SCARCITY (B) PROGNOSIS
(C) COMPLEXITY (D) CONVULSION

Directions: In question nos. 65 and 66, number of letters are skipped in between by a particular rule. Which of the following series observes the rule?

65. (A) ZXTNCD (B) MNXYPQ
(C) PRTVXZ (D) RSABLM
66. (A) RTVYZAC (B) KMORTUW
(C) SUWYACE (D) OWZDIOV

67. Which alternative clearly indicates the rule followed in the following set of numbers?

$$7 \ 4 \ 8 \ 2 = 24$$

- (A) $- \times \times$ (B) $- \times \div$
(C) $\times - \div$ (D) $\times \div -$

Directions: In question nos. 68 to 71, identify the correct response from the given premises stated according to following symbols:

68. If '+' stands for 'subtraction' and
'÷' stands for 'addition' and
'-' stands for 'multiplication' and
'x' stands for division, then which of the following

equations is correct?

- (A) $56 + 12 \times 34 - 12 = 102$
(B) $8 \div 44 - 5 + 25 = 203$
(C) $112 \times 44 - 12 + 10 = 46$
(D) $9 \div 64 - 2 \times 6 = 54$

69. If '-' stands for division

If '+' stands for multiplication

If '÷' stands for subtraction

If 'x' stands for addition

which one of the equations is correct?

- (A) $30 + 5 - 12 \div 8 \times 12 = 70$
(B) $30 - 5 + 12 \div 8 \times 12 = 76$
(C) $30 \times 5 - 12 + 8 \div 12 = 60$
(D) $30 \div 5 \times 12 + 8 - 12 = 24$

70. If '+' stands for multiplication, 'x' stands for division, '-' stands for addition and '÷' stands for subtraction, what is the answer for the following equation?

$$20 - 5 \div 18 \times (3 + 2) = ?$$

- (A) 20 (B) 18 (C) 108 (D) 22

71. If L = +, M = -, N = x, P = ÷, then

$$5 \ N \ 5 \ P \ 5 \ L \ 5 \ M \ 5 = ?$$

- (A) 0 (B) 5 (C) 10 (D) 15

Directions: In question nos. 72 and 73 two statements are given below followed by four assumptions. Identify, which one of the assumptions is implicit in the statements.

72. 1. India has many T.V. channels.
2. X channel has the largest number of viewers.
(A) All people do not watch T.V.
(B) Indians prefer X channel to other T.V. channels.
(C) The number of T.V. channels in India are sufficient.

(D) People of the world watch X channel.

73. 1. All people who own either a car or a house must pay income tax.

2. Sunita owns a house.

(A) Those who own cars own houses.

(B) Sunita has to pay income tax.

(C) All those who pay income tax own cars.

(D) All those who do not pay the income tax do not own anything.

Directions: In question nos. 74 to 75, a statement is given followed by two conclusions I and II. You have to consider the statement to be true, even if it seems to be at variance from commonly known facts. You are to decide which of the given conclusions can definitely be drawn from the given statements. Indicate your answer.

Statement:

74. This course is so designed that only few children can learn the topics by themselves.

Conclusions:

1. Learning the topics of this course by all the children is desirable.

2. Some learners find it difficult to learn the topics of this course in the absence of a teacher.

(A) Only (1) follows.

(B) Only (2) follows.

(C) Both (1) and (2) follow.

(D) Neither (1) nor (2) follows.

Statement:

75. The most polluting units are those engaged in electroplating of metals. These units generate highly toxic substances. Such industries are concentrated in the walled city.

Conclusions:

1. Electroplating industries must be shut down.

2. In the walled city there is greater pollution.

(A) Only (1) follows.

(B) Only (2) follows.

(C) Both (1) and (2) follow.

(D) Neither (1) nor (2) follows.

76. JANUARY = 7, MAY = 3 and MARCH = 5. If JUNE is not equal to JULY, JUNE + JULY is equal to:

(A) AUGUST (B) FEBRUARY

(C) APRIL (D) MAY

77. If MAMMAL is written as 13-1-13-13-1-12. Using the same code REPTILE is written as:

(A) 18 - 5 - 16 - 20 - 9 - 12 - 5

(B) 18 - 5 - 20 - 16 - 9 - 12 - 5

(C) 16 - 5 - 16 - 20 - 9 - 12 - 5

(D) 18 - 5 - 16 - 20 - 9 - 5 - 12

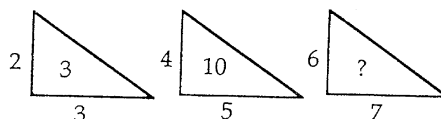
78. If A = 1, LOT = 47, then MAT = ?

(A) 40 (B) 66

(C) 34 (D) 51

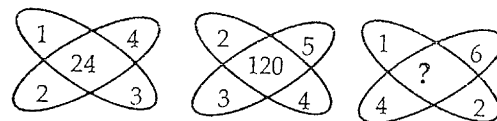
Directions: In question nos. 79 to 83 select the missing number from the given responses.

79.



(A) 21 (B) 32 (C) 22 (D) 24

80.



(A) 40 (B) 140 (C) 48 (D) 36

81. 4 3 6

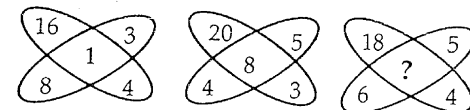
2 5 4

3 7 ?

24 105 120

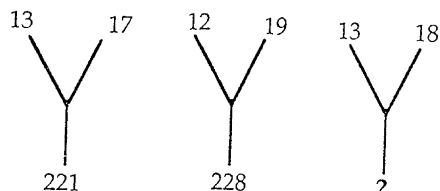
(A) 5 (B) 4 (C) 6 (D) 7

82.



(A) 3 (B) 10 (C) 15 (D) 60

83.



(A) 229 (B) 234 (C) 312 (D) 246

84. Which one of the given responses can be added to all the given letters to make meaningful words?

B L _ _ _

C R _ _ _

S P _ _ _

W R _ _ _

T _ _ _

(A) _ eak (B) _ ead

(C) _ ear (D) _ eal

Direction: (Q. No. 85 to 86) From the given alternatives, find the word which cannot be formed from the letters used in the given word.

85. LAUGHTER

(A) HEAL (B) REAL

(C) GAME (D) LATER

86. CATEGORIZATION

(A) ORIENT (B) TIGER

(C) GRANITE (D) NEGATIVE

87. In a circular arrangement of 3 boys (B_1 , B_2 and B_3)

and 3 girls (G_1, G_2 and G_3) sitting for a dinner successively, what will be the position of G_3 and B_3 , if no two girls sit together?

- (A) 4th and 5th (B) 5th and 6th
(C) 3rd and 4th (D) 3rd and 6th

88. A 25 ft 6 inches long piece of wood is cut to make three pieces of equal length. The length of one piece is:

- (A) 8 ft 1 inch (B) 8 ft 6 inch
(C) 8 ft 3 inch (D) 8 ft 4 inch

89. 'A' walks southwards, then turns right, then left and then right. In which direction is he from the starting point?

- (A) South (B) East
(C) West (D) North

90. Frame a meaningful word with the help of 2nd, 3rd, 4th, 6th, 10th, 11th and 12th letters of the word COSMOPOLITAN, and then write the middle letter of the word framed.

- (A) P (B) S (C) T (D) N

91. 24-carat gold is pure gold.

18-carat gold is $\frac{3}{4}$ gold.

20-carat gold is $\frac{5}{6}$ gold.

The ratio of pure gold in 18 carat gold to 20 carat gold is:

- (A) 5 : 8 (B) 10 : 9
(C) 15 : 24 (D) 9 : 10

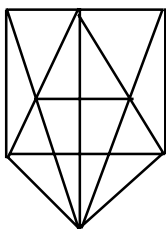
92. In a group, P is smarter than R. Q is duller than T. P is smarter than T. Who is the smartest?

- (A) P (B) R (C) Q (D) T

93. If the 23rd of a month is a Sunday, what day it would have been two weeks and four more days earlier?

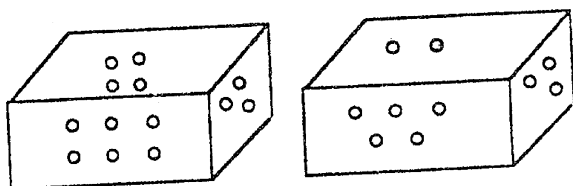
- (A) Monday (B) Tuesday
(C) Wednesday (D) Thursday

94. How many triangles are there in the following figure?



- (A) 26 (B) 24 (C) 27 (D) 20

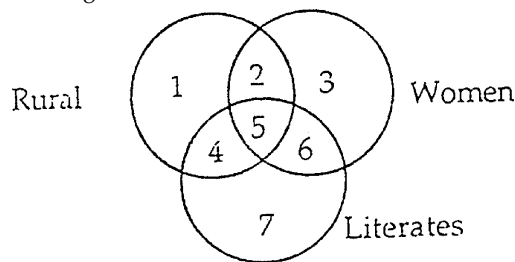
95. Two positions of a block are given below:



When two is at the bottom what number will be at the top?

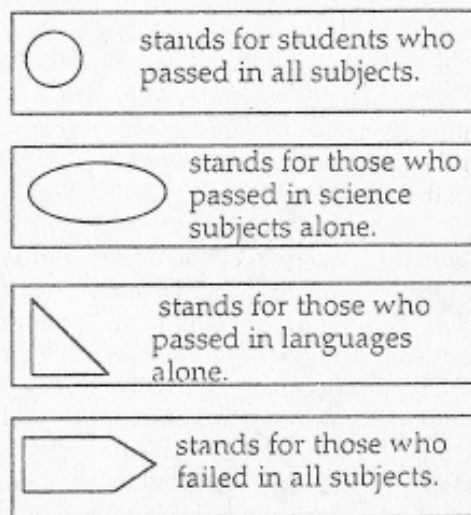
- (A) 6 (B) 5 (C) 4 (D) 1

96. Study the diagram below and identify the region representing rural literate.

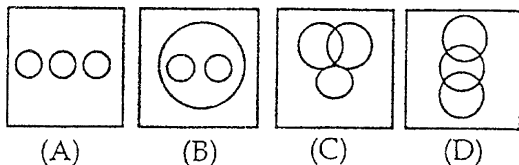


- (A) 5, 6 (B) 4, 5, 2 (C) 5, 4 (D) 4, 5, 7

97. In a Xth standard examination out of the 100 students appeared 50 passed in all the subjects, 20 passed in science subjects only and 10 passed in languages only. All the remaining students failed in all subjects. Which of the following represents this fact?

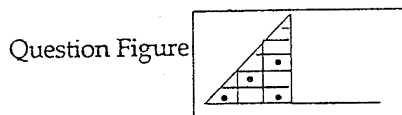


98. Which of the following represents liquids, metals, gases?

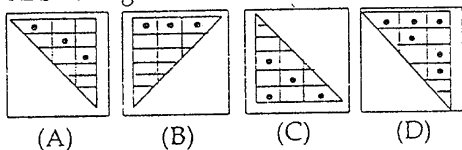


Directions: In question nos. 99 and 100 which one of the answer figures shall complete the given question figure?

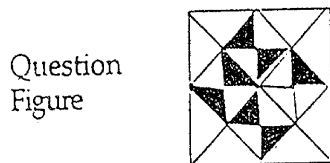
99.



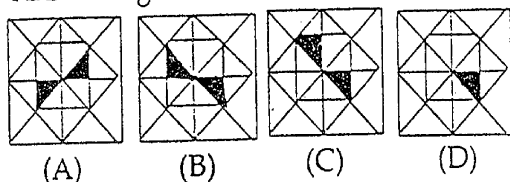
Answer Figures



100.



Answer Figures



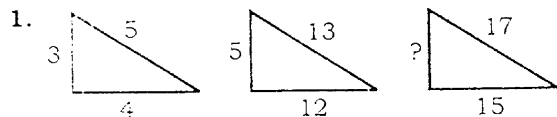
ANSWERS AND EXPLANATIONS

1. (B) 2. (B) 3. (D) 4. (A) 5. (C)
6. (B) 7. (D) 8. (A) 9. (C) 10. (B)
11. (D) 12. (A) 13. (C) 14. (C) 15. (B)
16. (C) 17. (C) 18. (C) 19. (A) 20. (D)
21. (B) 22. (D) 23. (C) 24. (C) 25. (C)
26. (D) 27. (B)
28. (D) One measures the other.
29. (B) The words have opposite meanings.
30. (D) The second one attends the first one.
31. (A) They have the same relationship.
32. (B) The second one abstains from the first one.

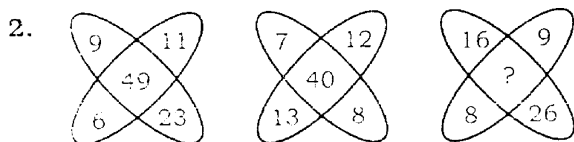
33. (B) They have the day and the influencing heavenly body relationship.
34. (B) First letter becomes the last one.
35. (C) They have the abode and the creature that occupies its relationship.
36. (B) Deduct the second number from the first and you get 14.
37. (A) One more side is added and the pattern shifts to outer corners.
38. (A) The figure has two more sides and two more dots.
39. (D) The pattern is reversed.
40. (D) The figure turns upside down.
41. (D) Lotus is a water-flower.
42. (C) Gap among letters is different.
43. (C) Each Group has two vowels, here they are differently arranged.
44. (B) In all the others, the digits of numbers are reversed.
45. (D) In all the others, the second digit of the first number is the first digit of the second number and the other one is one more.
46. (B) In all the others, the line divides the figure into equal parts.
47. (B) In all the others, the triangle has three lines only.
48. (C) All the other figures have three circles each.
49. (C) All the other figures have straight lines only.
50. (B) The inner and outer figures should be identical.
51. (C) Two letters are skipped in between.
52. (C) The number of letters skipped increases by one.
53. (B) The number of letters skipped between sets decreases by one.
54. (C) There is gap of one letter between sets.
55. (C) The arrangement is $2 \times 2 = 4$; $4 \times 3 = 12$; $12 \times 4 = 48$; $48 \times 5 = \dots$
56. (B) It is a series of cubes, 1^3 ; 2^3 ; 3^3 ; 4^3 ; 5^3 ...
57. (C) The gap is of 35, 28, 21, 14, 7 ... (table of 7).
58. (C) The series is 3 ; 3^2 ; 4 ; 4^2 ; 5 ; 5^2 ; 7 ; 7^2 ...
59. (B) 60. (C) 61. (D) 62. (A) 63. (D)
64. (D) 65. (C) 66. (C) 67. (C) 68. (B)
69. (B) 70. (D)
71. (B) $5 \times 5 \div 5 + 5 - 5$.
72. (B) 73. (B) 74. (C) 75. (B) 76. (B)
77. (A)
78. (C) $13 + 1 + 20$.
79. (A) 6×7 divided by 2.
80. (C) $1 \times 4 \times 2 \times 6 = 48$.
81. (A) $6 \times 4 \times 5 = 120$.
82. (A) $18 - (4 + 5 + 6)$.
83. (B) $13 \times 18 = 234$.
84. (A) 85. (C) 86. (B) 87. (B) 88. (B)
89. (C)
90. (C) The word is POSTMAN.
91. (D) 92. (A) 93. (B) 94. (C) 95. (C)
96. (C) 97. (C) 98. (A) 99. (C) 100. (D)

Test of Reasoning

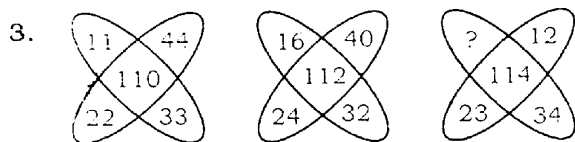
Directions: (Question Nos. 1 to 5) Select the missing number from the given responses.



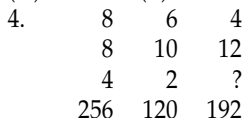
- (A) 2 (B) 8 (C) 64 (D) 6



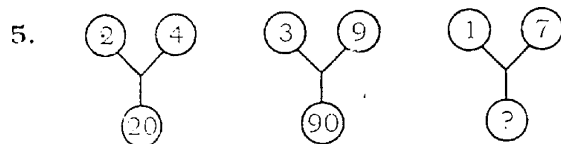
- (A) 52 (B) 42 (C) 59 (D) 17



- (A) 37 (B) 45 (C) 35 (D) 46



- (A) 8 (B) 4 (C) 2 (D) 0



- (A) 20 (B) 25 (C) 50 (D) 75

6. Which one of the given responses can be added to all the given letters to make meaningful words?

- Sl→
Pr→
Tr→ (— — —)
Br→
S→

- (A) _een (B) _eep (C) _ick (D) _our

Directions: (Question Nos. 7 and 8) From the given alternative words, select the word which cannot be formed using the letters of the given word.

7. GRANDIOSE

- (A) DURING (B) DRAGON
(C) DRAINS (D) DOSING
8. INTELLIGENCE
(A) NEGLECT (B) GENTLE
(C) TINGLE (D) TILLAGE

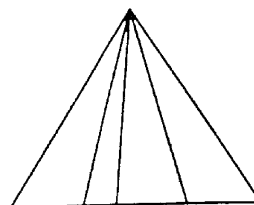
9. 37.5% of ? = 375

- (A) 500 (B) 800 (C) 1000 (D) 900

10. On the seven members panel sitting in a row X is to the left of Y, but on the right of O, P is on the right of Y but is on the left of N and M is on the left of Z, who is to the left of O. Find the member sitting right in the middle.

- (A) Z (B) P (C) X (D) O

11. How many triangles are there in the given figure?



- (A) 5 (B) 12 (C) 9 (D) 10

12. $\sqrt{7} \div 7\sqrt{7} = ?$

- (A) 7 (B) $\frac{1}{7}$ (C) $\frac{1}{\sqrt{7}}$ (D) $\sqrt{7}$

13. How many combinations of two-digit number having 8 can be made from the following numbers?

8, 5, 2, 1, 7, 6

- (A) 9 (B) 11 (C) 10 (D) 12

14. If 15th of June falls 3 days after tomorrow, that is Friday, on what day will the last of the month fall?

- (A) Monday (B) Tuesday
(C) Wednesday (D) Thursday

15. Ranga starts from his house towards South and walks 60 m then turns towards east and walks 40 m and turns towards north and walks 30 m and stops. How far is he away from his house?

- (A) 30 m (B) 40 m (C) 50 m (D) 35 m

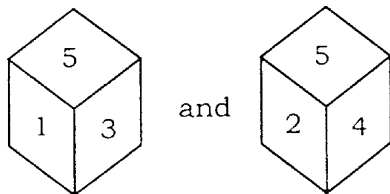
16. Six boys are sitting in a row. Jose and Manu are sitting adjacent to Raju. Uday has Gopi and Ram as his adjacents. Gopi is not next to either Jose or Manu. Ram is not sitting next to Manu. Who are/is sitting adjacent to Jose?

- (A) Raju and Uday (B) Raju and Manu
(C) Raju and Ram (D) Only Raju

17. Pick the 1st, 2nd, 4th, 5th and 6th letters in the word REASONING, form yet another word and then write the first and last letters of the word formed.

(A) SE (B) ES (C) NE (D) OR

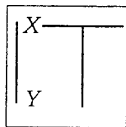
18. Two positions of a block are shown below:



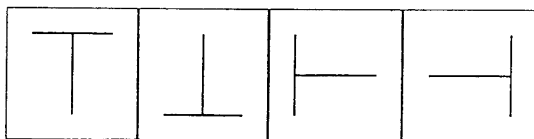
When 5 is on top, what is at the bottom?

(A) 6 (B) 4 (C) 3 (D) 2

19. Which of the answer figures is exactly the mirror image of the given figure when the mirror is held at XY?

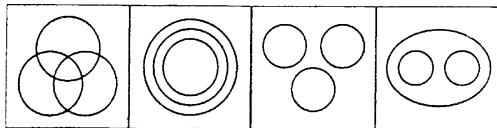


Answer Figures :



(A) (B) (C) (D)

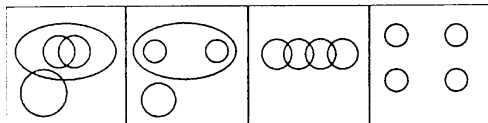
20. Which one of the following represents Lime, Cement and Brick?



(A) (B) (C) (D)

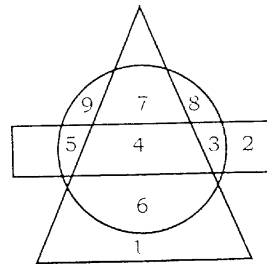
21. In a feast organised in connection with a marriage, some of the participants were vegetarians, some others were non-vegetarians. Another group was of non-vegetarians not eating meat and yet another group of people eating meat but not fish.

Which of the following represents this statistics?



(A) (B) (C) (D)

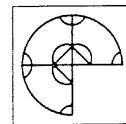
22. In the figure given below the circle represents 'villagers', the triangle stands for the 'educated' and the rectangle for the 'employed'. Which numbered space represents the statement—Some educated villagers are employed.



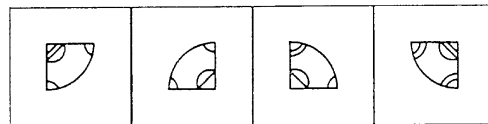
(A) 2 (B) 4 (C) 6 (D) 8

Directions: (Question Nos. 23 to 25) Which one of the answer figures shall complete the given question figure?

23. Question Figure :

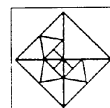


Answer Figures :

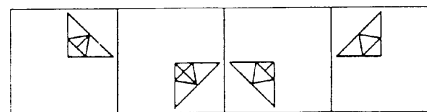


(A) (B) (C) (D)

24. Question Figure :

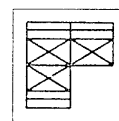


Answer Figures :

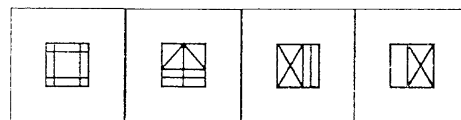


(A) (B) (C) (D)

25. Question Figure :

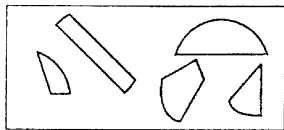


Answer Figures :

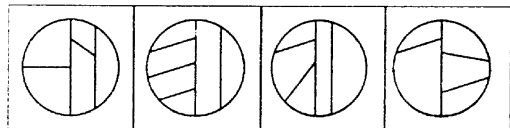


(A) (B) (C) (D)

26. Among the four answer figures which one can be formed from the cut-out pieces given below?



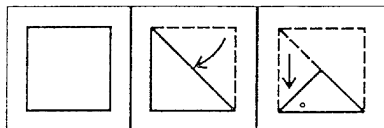
Answer Figures :



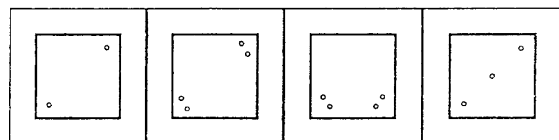
(A) (B) (C) (D)

Directions: (Question Nos. 27 and 28) A piece of paper is folded and punched as shown below. From the given responses indicate how it will appear when opened.

27.

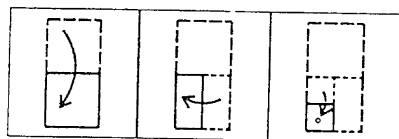


Answer Figures :

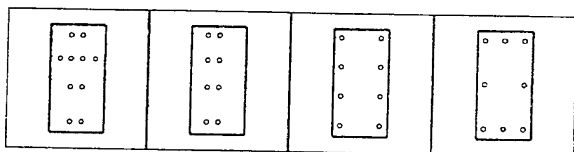


(A) (B) (C) (D)

28.



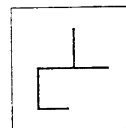
Answer Figures :



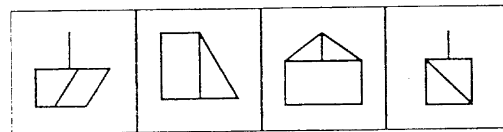
(A) (B) (C) (D)

29. From the given answer figures, select the one in which the question figure is hidden/embedded.

Question Figure :



Answer Figures :



(A) (B) (C) (D)

30. In the following list of numerals, how many 8's are there followed by 6 but not preceded by 2?

6 4 3 2 1 8 2 1 8 6 9 3 4 5 2 8 6
3 8 6 4 9 2 1 6 8 6 4 9 5 4 2 6 4

(A) 5 (B) 4 (C) 3 (D) 1

31. How many 4's are there preceded by 7 but not followed by 3?

5 9 3 2 1 7 4 2 6 9 7 4 6 1 3 2 8 7 4 1 3 8 3 2 5 6 7 4 3 9 5
8 2 0 1 8 7 4 6 3

(A) 3 (B) 5 (C) 6 (D) 4

32. How many a's are there followed by r's but not preceded by q's?

l m n c f d a r g l t m n t w r a q s m s t q a r l t n o a r
(A) 2 (B) 4 (C) 3 (D) 5

33. How many K's are there preceded by N but not followed by U?

A B C D K N L J M N K S T R Z
N K U A N K U B W X N K L S

(A) 6 (B) 2 (C) 4 (D) 3

34. How many L's are there which do not have R preceding them and also do not have T following them?

Z Q S T L R M N Q N R T U V X
R L T A S L T Q R S L T

(A) 2 (B) 1 (C) 3 (D) 5

Directions: (Question Nos. 35 and 36) Given below there is an address which has been reproduced against (A), (B), (C) and (D). Of them, three have some mistakes or the other while one is EXACTLY the same as given below. You are to choose the one as your answer which is EXACTLY the same reproduction of the given address.

35. Addilabad

15th April, 1852

- (A) Adhilabad
15th April, 1852
- (B) Adilahbad
15th April, 1952
- (C) Addilabad
15th April, 1852
- (D) Addilabad
15th April, 1852

36. Kala Shanmugham,
C/o ASA, Lamba Line
Junglighat, Port Blair 744103
- (A) Kala Shenmugham,
C/o ASA, Lamba Line
Junglighat, Port Blair 744103
- (B) Kala Shanmughan,
C/o ASA, Lamba Lane
Junglighat, Port Blair 744103
- (C) Kala Shanmugham,
C/o ASA, Lamba Line
Junglighat, Port Blair 744103
- (D) Kala Shanmugham,
C/o ASA, Lamba Line
Junglighat, Port Blair 744130

Directions: (Question Nos. 37 to 44) Below are given letters A to Z. Under each capital letter a small letter is written which is to be used as a code for the capital letter.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
o z f t g l q n a v s w c b y h u d j r p x m e k i

In each of the following questions, a group of six capital letters is given and its equivalent code is given in one of the columns (A), (B), (C) or (D). Study the group of letters given in each question and with the help of code given above, choose the code equivalent from amongst (A), (B), (C) or (D) as your answer.

- | | | | |
|--------|--------|--------|--------|
| (A) | (B) | (C) | (D) |
| qvscjx | ctloig | zrmtis | qvsliz |
| tdjiwr | wguxzg | ataydx | nxadjw |
| afchij | gjbflr | tdihwr | gjbrfl |
| wguxgz | dmthpr | wgurvs | ataydp |
| qujoxs | ataynp | wguxgz | tdiwrh |
| giavyu | naxowd | grpmil | qvpjrp |
37. IDIORV
38. LEQVEB
39. HIVALR
40. ESNTCF
41. DRZPLT
42. GJKMSV
43. BTWDZK
44. ICMPZS

45. Which of the following columns are related with each other in some way?

| I | II | III | IV | V |
|----|----|-----|----|----|
| 3 | 6 | 10 | 8 | 8 |
| 7 | 9 | 14 | 12 | 12 |
| 5 | 8 | 12 | 10 | 15 |
| 11 | 15 | 18 | 16 | 13 |
| 9 | 11 | 16 | 14 | 10 |

- (A) Columns I, II and III
- (B) Columns I, III and IV
- (C) Columns I, IV and V
- (D) Columns I, II and V

Directions: (Question Nos. 46 to 50) In the matrices a letter can be represented first by its row number and followed

by its column number. Eg., A is represented by 12, 24; and R by 57, 76, etc. In each of the questions following matrices, identify one set of number pairs out of (A), (B), (C) and (D) which represents the given word.

Matrix I

| | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| 0 | A | E | S | T | H |
| 1 | T | H | A | E | S |
| 2 | E | S | T | H | A |
| 3 | H | A | E | S | T |
| 4 | S | T | H | A | E |

Matrix II

| | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|
| 5 | P | O | R | K | L |
| 6 | K | L | P | O | R |
| 7 | O | R | K | L | P |
| 8 | L | P | O | R | K |
| 9 | R | K | L | P | O |

46. EAST
- (A) 32, 31, 02, 04 (B) 20, 43, 33, 11
- (C) 13, 12, 14, 10 (D) 44, 32, 21, 03
47. LAKE
- (A) 85, 31, 77, 44 (B) 97, 00, 77, 12
- (C) 66, 12, 58, 40 (D) 77, 43, 76, 31
48. ROSE
- (A) 86, 67, 33, 44 (B) 88, 76, 31, 32
- (C) 95, 75, 02, 32 (D) 57, 87, 32, 33
49. SOLE
- (A) 02, 78, 87, 13 (B) 33, 99, 66, 44
- (C) 41, 57, 87, 31 (D) 21, 75, 44, 02
50. LEST
- (A) 85, 02, 04, 22 (B) 87, 32, 21, 31
- (C) 66, 00, 20, 34 (D) 97, 32, 21, 34

Directions: In Question No. 51, a word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternative are represented by two classes of alphabets as in the 2 matrices given below. The columns and rows of Matrix I are numbered from 0 to 4 and that of Matrix II from 5 to 9. A letter from these matrices can be represented first by its row and next by column number. For example, N can be represented by 04, 24, etc. Similarly, you have to identify the set for the word given in the question.

Matrix I

| | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| 0 | R | A | S | C | N |
| 1 | N | C | A | S | R |
| 2 | R | S | C | A | N |
| 3 | N | A | S | C | R |
| 4 | R | C | N | A | S |

Matrix II

| | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|
| 5 | O | B | K | E | P |
| 6 | B | P | O | K | E |
| 7 | E | K | P | O | B |
| 8 | K | O | E | P | B |
| 9 | P | E | B | K | O |

51. REAP

- (A) 34, 58, 01, 95 (B) 00, 59, 12, 58
(C) 23, 75, 40, 95 (D) 20, 87, 59, 43

Directions: (Question Nos. 52 to 56) A word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternative are represented by two classes of alphabets as in the 2 matrices given below. The columns and rows of Matrix I are numbered from 0 to 4 and that of Matrix II from 5 to 9. A letter from these matrices can be represented first by its row and next by column number. For example, B can be represented by 10, 22, etc, U can be represented by 11, 23, etc. Similarly, you have to identify the set for the word given in each question.

Matrix I

| | 0 | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| 0 | L | A | M | B | U |
| 1 | B | U | L | A | M |
| 2 | A | M | B | U | L |
| 3 | U | L | A | M | B |
| 4 | M | B | U | L | A |

Matrix II

| | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|
| 5 | E | O | N | D | F |
| 6 | D | F | E | O | N |
| 7 | O | N | D | F | E |
| 8 | F | E | O | N | D |
| 9 | N | D | F | E | O |

52. DEAF

- (A) 58, 55, 01, 58 (B) 77, 79, 12, 66
(C) 89, 67, 44, 78 (D) 65, 67, 32, 96

53. LEAF

- (A) 12, 67, 02, 59 (B) 31, 79, 13, 68
(C) 24, 55, 20, 78 (D) 00, 98, 32, 87

54. LOAN

- (A) 12, 56, 13, 96 (B) 24, 68, 21, 89
(C) 31, 75, 32, 76 (D) 00, 99, 44, 58

55. DUMB

- (A) 65, 42, 02, 33 (B) 58, 11, 40, 41
(C) 77, 04, 33, 11 (D) 58, 23, 14, 04

56. DEAD

- (A) 96, 55, 44, 58 (B) 77, 98, 43, 67
(C) 89, 86, 21, 99 (D) 65, 65, 33, 78

Directions: (Question Nos. 57 to 69) Select the related letters/word/number/figure from the given alternatives.

57. Part : Whole :: Arc : ?

- (A) Triangle (B) Square
(C) Circle (D) Trapezium
58. Immigration : Arrival :: Emigration : ?
(A) Leaving (B) Alien
(C) Native (D) Emigrant

59. Blind : Visual :: Deaf : ?

- (A) Hearing (B) Listening
(C) Auditory (D) Sound

60. Monotony : Variety :: Crudeness : ?

- (A) Sobriety (B) Simplicity
(C) Raw (D) Refinement

61. Pulp : Paper :: Hemp : ?

- (A) Rope (B) Cotton (C) Yarn (D) Baskets

62. Injury : Pain :: ?

- (A) Grades : Merit (B) Thunder : Lightning
(C) Rotate : Churning (D) Matter : Labour

63. Book : Critic :: Building : ?

- (A) Appraiser (B) Weigher
(C) Contractor (D) Engineer

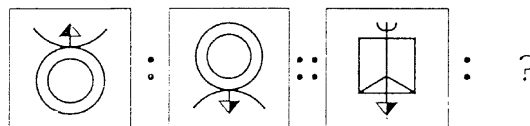
64. item : mite :: ache : ?

- (A) heac (B) heca (C) each (D) ceha

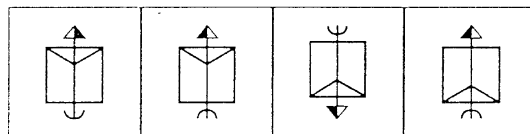
65. 13 : 5 :: 32 : ?

- (A) 24 (B) 37 (C) 45 (D) 56

66. Question Figures :

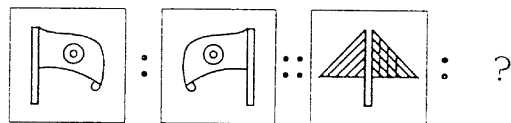


Answer Figures :

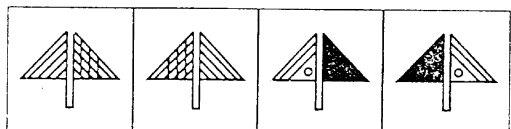


- (A) (B) (C) (D)

67. Question Figures :

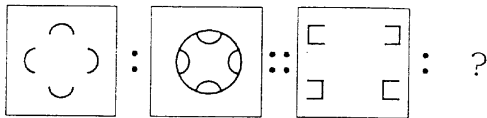


Answer Figures :

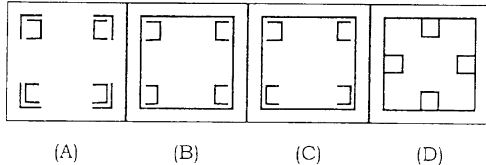


- (A) (B) (C) (D)

68. Question Figures :



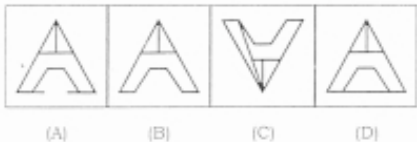
Answer Figures :



69. Question Figures :

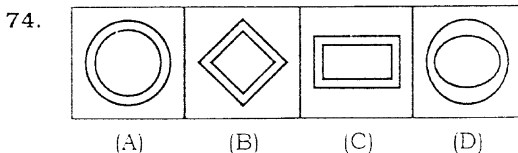
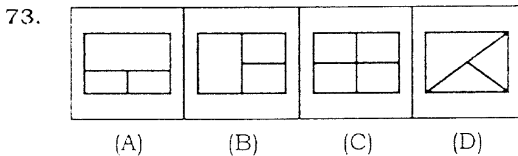


Answer Figures :



Directions: (Question Nos. 70 to 74) Select the one which is different from the other three.

70. (A) Sari (B) Frock (C) Skirt (D) Turban
 71. (A) 72-43 (B) 68-40 (C) 85-57 (D) 55-27
 72. (A) 46-23 (B) 34-62 (C) 61-44 (D) 62-42



Directions: (Question Nos. 75 to 82) A series is given with term/figure missing. Choose the correct alternative from the given ones that will complete the series.

75. CEG, IKM, OQS, ?
 (A) TVX (B) UWY (C) UWZ (D) TVW
 76. A, B, D, G, ?
 (A) I (B) J (C) K (D) L
 77. a d c f ? h g ? i

- (A) j e (B) f j (C) e k (D) e j

78. BDE, JLN, PRT, ?

- (A) WXY (B) VXY (C) UWY (D) VWX

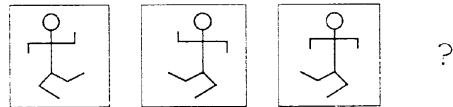
79. 23, 29, 36, 44, ?

- (A) 58 (B) 55 (C) 53 (D) 49

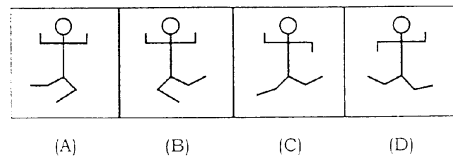
80. 66, 56, 48, ?, 38, 36

- (A) 46 (B) 44 (C) 42 (D) 40

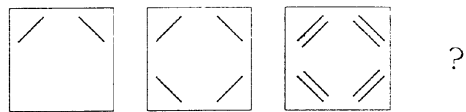
81. Question Figures :



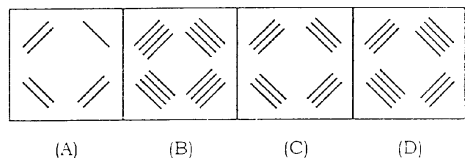
Answer Figures :



82. Question Figures :



Answer Figures :



Directions: (Question Nos. 83 and 84) Arrange the following in meaningful order.

83. 1. Seed, 2. Fruit, 3. Plant, 4. Stem, 5. Flower

- (A) 1, 3, 4, 5, 2 (B) 1, 3, 5, 4, 2

- (C) 1, 5, 3, 4, 2 (D) 1, 3, 5, 2, 4

84. 1. Foetus, 2. Child, 3. Baby, 4. Adult, 5. Youth

- (A) 5, 4, 2, 3, 1 (B) 1, 2, 4, 3, 5

- (C) 2, 3, 5, 4, 1 (D) 1, 3, 2, 5, 4

85. In the following, the group of letters should not contain more than two vowels. Which of the groups conforms to this rule?

- (A) JKAPIXU (B) BDEJOLY

- (C) PRAQEOS (D) ZILERAM

86. Number of letters skipped in between adjacent letters in the series increases by one every time. Which of the following series observes this rule?

- (A) ACFKO (B) DGKPV (C) DBKAM (D) QSVXZ

87. In the following, 5 letters have been skipped between two letters. Which of the following observes the rule given above?

- (A) RXD (B) ABE (C) PQT (D) LMQ

88. Select the correct set of symbols which will fit in the given equation

$$5 \ 0 \ 3 \ 5 = 20$$

- (A) $+-\times$ (B) $\times++\times$ (C) $-+\times$ (D) $\times\times\times$

89. If ' \times ' stands for minus, ' $+$ ' stands for multiplication, ' $-$ ' stands for plus, then which one of the following is correct?

$$6 + (3 \times 1) + 5 = ?$$

- (A) 58 (B) 64 (C) 60 (D) 12

90. If ' $+$ ' means ' \div ', ' \div ' means ' $-$ ', ' $-$ ' means ' \times ', ' \times ' means ' $+$ ', then:

$$12 + 6 \div 3 - 2 \times 8 = ?$$

- (A) -2 (B) 4 (C) 2 (D) 8

91. If ' $+$ ' stands for ' \times ', ' $-$ ' for ' \div ', ' \times ' for ' $-$ ' and ' \div ' for ' $+$ ', then find the value of the following equation:

$$26 + 74 - 4 \times 5 \div 2 = ?$$

- (A) 220 (B) 376 (C) 478 (D) 488

92. If L = +, M = -, N = \times , P = \div , then

$$14 \ N \ 10 \ L \ 42 \ P \ 2 \ M \ 8 = ?$$

- (A) 153 (B) 216 (C) 248 (D) 251

Directions: (Question Nos. 93 to 98) A Statement is given

followed by two Assumptions, I and II. You have to consider the statement to be true, even if it seems to be at variance from commonly known facts. You are to decide which of the given assumptions can definitely be drawn from the given statement. Indicate your answer.

Statement:

93. The Ayodhya dispute has a 350-year old background and could not be solved in a jiffy.

Assumptions:

- I. Ayodhya has some problem.
II. It would take long before the problem could be solved.

- (A) Only I is implicit. (B) Only II is implicit.
(C) Both I and II are implicit.
(D) Neither I nor II is implicit.

Statement:

94. I pray to God whenever I am in difficulty.

Assumptions:

- I. Prayers can solve problems.
II. Prayer to God is the highest duty of man.

- (A) Only I is implicit.
(B) Only II is implicit.
(C) Both I and II are implicit.
(D) Neither I nor II is implicit.

Statement:

95. The values of an educated person will differ from that of an uneducated person.

Assumptions:

- I. Education influences an individual's values.
- II. An uneducated person will not have values.
- (A) Both I and II are implicit. (B) Only I is implicit.
- (C) Only II is implicit.
- (D) Neither I nor II is implicit.

Statement:

96. The cost of living has gone up in India.

Assumptions:

- I. The price of essential commodities has gone up in recent times.
- II. Many luxury goods are available in plenty in the country.
- (A) Both I and II are implicit.
- (B) Neither I nor II is implicit.
- (C) Only I is implicit. (D) Only II is implicit.

Statement:

97. In the present period of economic hardships, education and small family norm may lead the nation to progress.

Assumptions:

- I. Education and small family norm are directly related to nation's progress.
- II. Big families find it difficult to bear the cost of education.
- (A) Only I is implicit. (B) Only II is implicit.
- (C) Both I and II are implicit.
- (D) Neither I nor II is implicit.

Statement:

98. The marriage rate has been steadily decreasing because more and more people prefer to have their own identity.

Assumptions:

- I. When one is married, he/she loses his/her own identity.
- II. People who are married are not as content as those who are not married.
- (A) Only I is implicit. (B) Only II is implicit.
- (C) Both I and II are implicit.
- (D) Neither I nor II is implicit.

99. If E = 5 and HOTEL = 12, how will you code LAMB?

(A) 28 (B) 7 (C) 10 (D) 26

100. If DICTIONARY is written as 1234256789, then ORDINARY is:

- (A) 57326789 (B) 59126789
- (C) 56126789 (D) 58126789

ANSWERS AND EXPLANATIONS

1. (B) $\sqrt{8^2 + 15^2} = \sqrt{64 + 225} = \sqrt{289}$. Ans 17
2. (C) The number in the centre is the total of the four numbers around.

3. (B) Same as above.

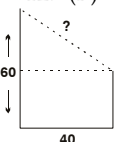
4. (B) $4 \times 12 \times 4 = 192$.

5. (C) $1^2 + 7^2$, i.e. $1 + 49 = 50$.

6. (C) 7. (A) 8. (D) 9. (C)

10. (C) The arrangement is Left \leftarrow MZOXYPN \rightarrow Right

11. (D) 12. (B) 13. (C) 14. (C)

15. (C)  $\sqrt{30^2 + 40^2} = \sqrt{900 + 1600} = \sqrt{2500}$

16. (C) Manu; Raju; Jose; Ram; Uday; Gopi.

17. (A) SNORE 18. (A) 19. (A) 20. (C)

21. (B) 22. (B) 23. (B) 24. (C) 25. (C)

26. (C) 27. (B) 28. (C) 29. (A) 30. (C)

31. (D) 32. (A) 33. (B) 34. (B) 35. (C)

36. (C) 37. (C) 38. (A) 39. (B) 40. (D)

41. (C) 42. (A) 43. (C) 44. (A)

45. (B) The numbers of difference of two in the same sequence.

46. (C) 47. (A) 48. (C) 49. (B) 50. (D)

51. (A) 52. (C) 53. (C) 54. (C) 55. (B)

56. (A) 57. (C) 58. (A) 59. (C) 60. (D)

61. (A)

62. (B) One follows the other.

63. (D) 64. (C) The letters are arranged differently.

65. (A) The numbers have a difference of '8'.

66. (D) 67. (B) 68. (C) 69. (B)

70. (D) It is a head-wear.

71. (A) All the others have a difference of 28.

72. (B) In all the others the second number is less than the first one.

73. (C) In all the others, one line divides the figure, then another line divides one of the halves into two.

74. (D) The two figures are not identical as in the others.

75. (B) The letters have gap of one.

76. (C) The gap in letters increases by one.

77. (D) The letters with a gap of one are arranged alternately.

78. (C) Same as 75th.

79. (C) The numbers have gap of 6, 7, 8, 9 ... consecutively.

80. (C) The numbers have a gap of 10, 8, 6, 4, 2

81. (B) Arms and legs point in the opposite direction.

82. (B) The number of lines added is double of the preceding figure.

83. (A) 84. (D) 85. (B) 86. (B) 87. (A)

88. (C) 89. (C) 90. (B) 91. (C) 92. (A)

93. (C) 94. (A) 95. (B) 96. (C) 97. (A)

98. (A)

99. (B) Give value to letters according to their place in the alphabetical order and add the numbers, i.e. $8 + 15 + 20 + 5 + 12 = 60$ and divide it by the number of letters in the word, i.e. $60 \div 5 = 12$; hence LAMB would be $12 + 1 + 13 + 2 = 28 \div 4 = 7$.

100. (D)