TPC test-6

Directions (1-5): The following pie-chart shows the sources of funds to be collected by the National Highways Authority of India (NHAI) for its Phase II projects. Study the pie-chart and answers the question that follow.

Sources of funds to be arranged by NHAI for Phase II projects (in crores Rs.)

Q1. Near about 20% of the funds are to be arranged through:

(a) SPVS   (b) External Assistance   (c) Annuity   (d) Market Borrowing

Q2. If NHAI could receive a total of Rs. 9695 crores as External Assistance, by what percent (approximately) should it increase the Market Borrowing to arrange for the shortage of funds?

(a) 4.5%   (b) 7.5%   (c) 6%   (d) 8%

Q3. If the toll is to be collected through an outsourced agency by allowing a maximum 10% commission, how much amount should be permitted to be collected by the outsourced agency, so that the project is supported with Rs. 4910 crores?

(a) Rs. 6213 crores   (b) Rs. 5827 crores   (c) Rs. 5401 crores   (d) Rs. 5316 crores
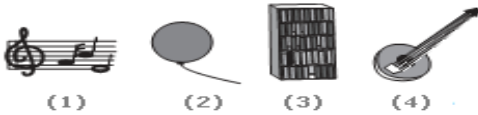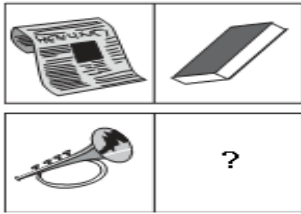
Q4. The central angle corresponding to Market Borrowing is

(a) 52°   (b) 137.8°   (c) 185.2°   (d) 187.2°

Q5. The approximate ratio of the funds to be arranged through Toll and that through Market Borrowing is

(a) 2 : 9   (b) 1 : 6   (c) 3 : 11   (d) 2 : 5

Q6. Choose the picture that would go in the empty box so that the two bottom pictures are related in the same way as the top two are related.

(a) 1   (b) 2   (c) 3   (d) 4

Q7. Look at this series: 3, 4, 7, 8, 11, 12, ... What number should come next?

(a) 7   (b) 10   (c) 14   (d) 15

Q8. Look at this series: 14, 28, 20, 40, 32, 64, ... What number should come next?

(a) 52   (b) 56   (c) 96   (d)128

Q9. Arrange the words given below in a meaningful sequence.

1. Elephant	2. Cat	3. Mosquito
4. Tiger	5. Whale	

(a) 5, 3, 1, 2, 4   (b) 3, 2, 4, 1, 5   (c) 1, 3, 5, 4, 2   (d) 2, 5, 1, 4, 3

Q10. In the following question two statements are given. Which are followed by four conclusions (1), (2), (3) and (4). Choose the conclusions which logically follow from the given statements.

Statements: All the research scholars are psychologists. Some psychologists are scientists.
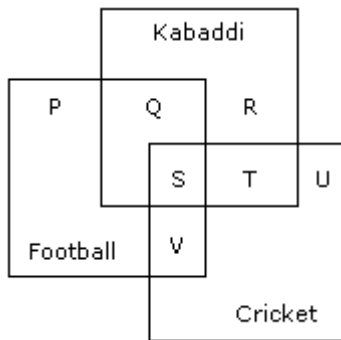Conclusions:
  1. All the research scholars are scientists.

  2. Some research scholars are scientists.

  3. Some scientists are psychologists.

  4. Some psychologists are research scholars.

(a) Only (3) and (4)   (b) None of the four   (c) All the four   (d) Only (3)   (e) Only (2) and (4)

Q11. Anupam said to a lady sitting in a car, "The only daughter of the brother of my wife is the sister-in-law of the brother of your sister." How the husband of the lady is related to Anupam?

(a) Maternal uncle   (b) Uncle   (c) Father   (d) Son-in-law

Q12. The diagram given below represents those students who play Cricket, Football and Kabaddi.

Q12. Study the diagram and identify the students who play all the three games.

(a) P + Q + R   (b) V + T   (c) S + T + V   (d) S

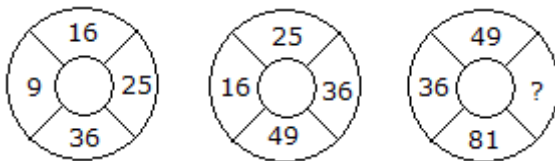Directions (13-14): In the following question find out the alternative which will replace the question mark.

Q13. Poles : Magnet :: ? : Battery
(a) Cells   (b) Power   (c) Terminals   (d) Energy

Q14. Cassock : Priest :: ? : Graduate

(a) Cap   (b) Tie   (c) Coat   (d) Gown

Q15. Which one will replace the question mark ?

(a) 64   (b) 144   (c) 169   (d) 25

Q16. Choose the word which is different from the rest.

(a) Sparrow   (b) Swan   (c) Parrot   (d) Koel

Q17. A tailor had a number of shirt pieces to cut from a roll of fabric. He cut each roll of equal length into 10 pieces. He cut at the rate of 45 cuts a minute. How many rolls would be cut in 24 minutes ?

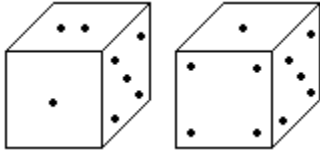(a) 32 rolls   (b) 54 rolls   (c) 108 rolls   (d) 120 rolls

Q18. There are deer and peacocks in a zoo. By counting heads they are 80. The number of their legs is 200. How many peacocks are there ?

(a) 20   (b) 30   (c) 50   (d) 60

Q19. If A $ B means B is the father of A; A # B means B is the mother of A; A * B means B is the sister of A and A @ B means B is the husband of A, which of the following indicates that N is the grandmother of P?

(a) P * Q # M $ N   (b) P @ Q $ M # N   (c) P # Q $ N * M   (d) None of these

Q20. Observe the dots on the dice (one to six dots) in the following figures. How many dots are contained on the face opposite to the containing four dots?

(a) 2   (b) 3   (c) 5   (d) 6

Directions (21-24): P, Q, R, S, T, U, V and W are sitting round the circle and are facing the centre:

1. P is second to the right of T who is the neighbour of R and V.
2. S is not the neighbour of P.
3. V is the neighbour of U.
4. Q is not between S and W. W is not between U and S.

Q21. Which two of the following are not neighbours ?

(a) RV   (b) UV   (c) RP   (d) QW

Q22. Which one is immediate right to the V ?

(a) P   (b) U   (c) R   (d) T

Q23. Which of the following is correct ?

(a) P is to the immediate right of Q   (b) R is between U and V

(c) Q is to the immediate left of W   (d) U is between W and S

Q24. What is the position of S ?

(a) Between U and V   (b) Second to the right of P

(c) To the immediate right of W   (d) Data inadequate.

Q25. Village Q is to the North of the village P. The village R is in the East of Village Q. The village S is to the left of the village P. In which direction is the village S with respect to village R?

(a) West   (b) South-West   (c) South   (d) North-West

Q26. A wheel that has 6 cogs is meshed with a larger wheel of 14 cogs. When the smaller wheel has made 21 revolutions, then the number of revolutions mad by the larger wheel is:

(a) 4   (b) 9   (c) 12   (d) 49

Q27. A sum of money becomes three times in 5 years. In how many years it will become 27 times?

(a) 10 years   (b) 15 years   (c) 20 years   (d) None of these

Q28. There were 35 students in a hostel. If the number of students is increased by 7 the expenditure on food increases by Rs.42 per day while the average expenditure of students is reduced by Rs.1. What was the initial expenditure on food per day ?

(a) Rs.432   (b) Rs.442   (c) Rs.400   (d) Rs.420

Q29. The difference of two numbers is 1365. On dividing the larger number by the smaller, we get 6 as quotient and the 15 as remainder. What is the smaller number ?

(a) 240   (b) 270   (c) 295   (d) 360

Q30. A train overtakes two persons who are walking in the same direction in which the train is going, at the rate of 2 kmph and 4 kmph and passes them completely in 9 and 10 seconds respectively. The length of the train is:

(a) 45 m   (b) 50 m   (c) 54 m   (d) 72 m

Q31. A milkman purchases the milk at Rs. x per litre and sells it at Rs. $2x$ per litre still he mixes 1 litres water with every 4 litres of pure milk. What is the profit percentage?

(a) 100%   (b) 133.33%   (c) Data inadequate   (d) 150%

Q32. A man took loan from a bank at the rate of 12% p.a. simple interest. After 3 years he had to pay Rs. 10,800 interest only for the period. The principal amount borrowed by him was:

(a) Rs. 30,000   (b) Rs. 36,000   (c) Rs. 45,000   (d) None of these

Q33. A certain sum of money amounts to Rs 1008 in 2 years and to Rs 1164 in 3 ½ years. Find the sum?

(a) Rs. 750   (b) Rs. 800   (c) Rs. Rs. 808   (d) Data inadequate

Q34. If the cost price of 12 pens is equal to the selling price of x pens, if the gain percent is 20%. Find the value of x?

(a) 15   (b) 8   (c) 10   (d) None of these

Q35. The average weight of 12 parcels is 1.8 kg. Addition of another new parcel reduces the average weight by 50 g. What is the weight of the new parcel ?

(a) 1.10 kg   (b) 1.15 kg   (c) 1.50 kg   (d) 1.01 kg

Q36. The slant height of a right circular cone is 10 m and its height is 8 m. Find the area of its curved surface.

(a) 30^{π} m²   (b) 40^{π} m²   (c) 60^{π} m²   (d) 80^{π} m²

Q37. Which one of the following is not a prime number?

(a) 47   (b) 91   (c) 73   (d) 97

Q38. What is the unit digit in $\{(6374)^{1793} \times (625)^{317} \times (341^{491})\}$?

(a) 0   (b) 2   (c) 3   (d) 5

Q39. A man completes $\frac{9}{13}$ of a job in 36 days. At this rate, how many more days will it takes him to finish half of the job?

(a) 16 days   (b) 18 days   (c) 26 days   (d) None of these

Q40. A tank is filled by three pipes with uniform flow. The first two pipes operating simultaneously fill the tank in the same time during which the tank is filled by the third pipe alone. The second pipe fills the tank 5 hours faster than the first pipe and 4 hours slower than the third pipe. The time required by the first pipe is:

(a) 6 hours   (b) 10 hours   (c) 15 hours   (d) 30 hours

Answer key

1	B	9	B	17	D	25	B	33	B
2	C	10	A	18	D	26	B	34	C
3	C	11	D	19	D	27	B	35	B
4	D	12	D	20	A	28	D	36	C
5	B	13	C	21	A	29	B	37	B
6	D	14	D	22	D	30	B	38	A
7	D	15	A	23	C	31	D	39	C
8	B	16	B	24	C	32	A	40	C