

Aptitude and Reasoning

- Q.1 If ABC x DEED = ABCABC; where A, B, C, D and E are different digits, what are the values of D and E?
 - (a) D = 2, E = 2 (b) D = 0, E = 1
 - (c) D = 1, E = 0 (d) D = 1, E = 2
- Q.2 Two men, Anil and David, and two women, Shabnam and Rekha are in a sales group. Only two speak Tamil. The other two speak Marathi. Only one man and one woman can drive a car. Shabnam speaks Marathi. Anil speaks Tamil. Both Rekha and David can drive.

Which of the following statements is true?

- (a) Both the Tamil speakers can drive a car.
- (b) Both the Marathi speakers can drive a car.
- (c) Both of those who can drive a car speak Marathi.
- (d) One of those who can drive a car speaks Tamil.
- Q.3 A society consists of only two types of people-fighters and cowards. Two cowards are always friends. A fighter and a coward are always enemies. Fighters are indifferent to one another. If A and B are enemies, C and D are friends, E and F are indifferent to each other, A and E are not enemies, while B and F are enemies.

Which of the following statements is correct?

- (a) B, C and F are cowards.
- (b) A, E and F are fighters.
- (c) B and E are in the same category.
- (d) A and F are in different categories.
- Q.4 IF A runs less fast than B, and B runs as fast but not faster than C; then compared to A, C runs
 - (a) slower than A
 - (b) faster than A
 - (c) with same speed as A
 - (d) Given data is not sufficient to determine
- Q.5 Each of A, B, C and D has `100. A pays `20 to B, who pays `10 to C, who gets `30 from

- D. In this context, which one of the following statements is not correct?
- (a) C is the richest
- (b) D is the poorest
- (c) C has more than what A and D have together
- (d) B is richer than D
- Q.6 Consider the following matrix:

3	8	10	2	?	1
6	56	90	2	20	0

What is the missing number at '?' in the matrix?

- (a) 5
- (b) 0
- (c) 7
- (d) 3
- Q.7 Four persons A, B, C and D consisting of two married couples are in a group. Both the women are shorter than their respective husbands. A is the tallest among the four. C is taller than B. D is B's brother. In this context, which one of the following statements is not correct?
 - (a) All four have family ties.
 - (b) B is the shortest among the four.
 - (c) C is taller than D.
 - (d) A is B's husband.
- Q.8 In a group of six women there are four dancers, four vocal musicians, one actress and three violinists while Girija and Vanaja are among the violinists while Jalaja and Shilaja do not know how to play on the violin. Shailaja and Tanuja are among the dancers. Jalaja, Vanaja, Shailaja and Tanuja are all vocal musicians and two of them are also violinists. If Pooja is an actress, who among the following is certainly a dancer and a violinist?
 - (a) Jalaja
- (b) Pooja
- (c) Shailaja
- (d) Tanuja
- Q.9 In a row 'A' is in the 11th position from the left and 'B' is in the 10th position from the right. If 'A' and 'B' interchange, then 'A' becomes 18th from the left. How many persons are there in the row other than 'A' and 'B' ?
 - (a) 27
- (b) 26
- (c) 25
- (d) 24

- Q.10 Location of B is north of A and location of C is east of A. The distance AB and AC are 5 km and 12 km respectively. The shortest distance (in km) between the locations B and C is
 - (a) 60
- (b) 13
- (c) 17
- (d) 7

Directions for the following item:

A, B, C, D, E, F are members of a family. They are engineer, stenographer, doctor, draughtsman, lawyer and judge (not in order). A, the engineer is married to the lady stenographer. The judge is married to the lawyer. F, the draughtsman is the son of B and brother of E. C, the lawyer is the daughter-in-law of D. E is the unmarried doctor. D is the grandmother of F. There are two married couples in the family.

- Q.11 What is the profession of D?
 - (a) Judge
- (b) Stenographer
- (c) Doctor
- (d) Can't be determine
- Q.12 Six books are labelled A, B, C, D, E and F and are placed side by side. Books B, C, E and F have green covers while others have yellow covers. Books A, B and D are new while the rest are old volumes. Books A, B and C are law reports while the rest are medical extracts. Which two books are old medical extracts and have green covers?
 - (a) B and C
- (b) E and F
- (c) C and E
- (d) C and F
- Q.13 Consider the following statements?

There are six villages A, B, C, D, E and F.

F is 1 km to the west to D.

B, E is 1 km to the east of E.

A is 2 km to the north of E.

C is 1 km to the east of A.

D is 1 km to the south of A.

Which three villages are in a line?

- (a) A, C, B
- (b) A, D, E
- (c) C, B, F
- (d) E, B, D

Directions for the following 2 (Two) items:

Read the following statements and answer the items that follow:

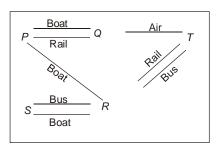
Five cities P, Q, R, S and T are connected by different modes of transport as follows:

P and Q are connected by boat as well as rail. S and R are connected by bus and boat.

Q and T are connected by air only.

P and R are connected by boat only.

T and R are connected by rail and bus.



- Q.14 If a person visits each of the places starting from P and gets back to P, which of the following places must he visit twice?
 - (a) Q
- (b) R
- (c) S
- (d) T
- Q.15 Between which two cities among the pairs of cities given below are there maximum travel options available?
 - (a) Q and S
- (b) P and R
- (c) Pand T
- (d) Q and R

Direction for the following items: Read the following passage and answer the items that follow:

A tennis coach is trying to put together a team of four players for the forthcoming tournament. For this 7 players are available: males A, B and C; and females W, X, Y and Z. All players have equal capability and at least 2 males will be there in the team. For a team of four, all players must be able to play with each other. But, B cannot play with W, C cannot play with Z and W cannot play with Y.

Q.16 If B is selected and Y is rejected, the team will consist of which one of the following groups?

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- (a) A, B, C and W (b) A, B, C and Z (c) A, B, C and Y (d) A, W, Y and Z
- Q.17 The music director of a film wants to select four persons to work on different aspects of the composition of a piece of music. Seven persons are available for this work; they are Rohit, Tanya, Shobha, Kaushal, Kunal, Mukesh and Jaswant.

Rohit and Tanya will not work together. Kunal and Shobha will not work together. Mukesh and Kunal want to work together.

Which of the following is the most acceptable group of people that can be selected by the music director?

- (a) Rohit, Shobha, Kunal and Kaushal
- (b) Tanya, Kaushal, Shobha and Rohit
- (c) Tanya, Mukesh, Kunal and Jaswant
- (d) Shobha, Tanya, Rohit and Mukesh
- Q.18 Five people A, B, C, D and E are seated about a round table. Every chair is spaced equidistant from adjacent chairs.
 - 1. C is seated next to A.
 - 2. A is seated two seats from D.
 - 3. B is not seated next to A.

Which of the following must be true?

- I. D is seated next to B.
- II. E is seated next to A.
 Select the correct answer using the codes given below:
- (a) I only
- (b) II only
- (c) Both I and II
- (d) Neither I nor II

Direction for the following items:

Examine carefully the following statements and answer the question:

Out of four friends A, B, C and D,

A and B play football and cricket,

B and C play cricket and hockey,

A and D play basketball and football,

C and D play hockey and basketball.

Pattern of playing will be:

	Football	Cricket	Hockey	Basketball
Α	1	✓	×	✓
В	1	✓	1	×
С	×	✓	1	1
D	1	×	1	1

- Q.19 Who plays football, basketball and hockey?
 - (a) D
- (b) C

(c) B

- (d) A
- Q.20 Geeta is older than her cousin Meena. Meena's brother Bipin is older than Geeta. When Meena and Bipin visit Geeta, they like to play chess. Meena wins the game more often than Geeta.

Based on the above information, four conclusions, as given below, have been made. Which one of these logically follows from the information given above?

- (a) While playing chess with Geeta and Meena, Bipin often loses.
- (b) Geeta is the oldest among the three.
- (c) Geeta hates to lose the game.
- (d) Meena is the youngest of thethree.
- Q.21 There are five hobby clubs in a college vis., photography, yachting, chess, electronics and gardening. The gardening group meets every second day, the electronics group meets every third day, the chess group meets every fourth day, the yachting group meets every fifth day and photography meets every sixth day. How many times do all the five groups meet on the same day in within 180 days?
 - (a) 3
- (b) 5
- (c) 10
- (d) 18
- Q.22 A, B, C, D and E belong to five different cities P, Q, R, S and T (not necessarily in that order). Each one of them comes from a different city. Further it is given that:
 - 1. B and C do not belong to Q.
 - 2. B and E do not belong to P and R.
 - 3. A and C do not belong to R, S and T.
 - 4. D and E do not belong to Q and T.

Which one of the following statements is not correct?

- (a) C belongs to P
- (b) D belongs to R
- (c) A belongs to Q
- (d) B belongs to S
- Q.23 Seven men, A, B, C, D, E, F and G are standing in a queue in that order. Each one is wearing a cap of a different color like violet, indigo, blue, green, yellow, orange and red. D is able to see in front of him green and blue, but not violet. E can see violet and yellow, but not red. G can see caps of all colors other than orange. If E is wearing an indigo colored cap, then the color of the worn by F is
 - (a) Blue
- (b) Violet
- (c) Red
- (d) Orange
- Q.24 There are some balls of red, green and yellow color lying on a table. There are as many red balls as there are yellow balls. There are twice as many yellow balls as there are green ones. The number of red balls
 - (a) is equal to the sum of yellow and green balls.
 - (b) is double the number of green balls.
 - (c) is equal to yellow balls minus green balls.
 - (d) cannot be ascertained
- Q.25 Consider the following matrix:

3	370	7	
2	224	6	
1	730	Χ	

What is the number at 'X' in the above matrix?

- (a) 5
- (b) 8
- (c) 9
- (d) 11
- Q.26 A cube has six numbers marked 1, 2, 3, 4, 5 and 6 on its faces. Three views of the cube are shown below:







What possible numbers can exist on the two

faces marked A and B, respectively on the cube?



- (a) 1, 2
- (b) 1, 3
- (c) 2, 4
- (d) 1, 6
- Q.27 Three persons A, B and C wore shirts of black, blue and orange colors (not necessarily in that order) and pants of green, yellow and orange colors (not necessarily in that order). No person wore shirt and pants of the same color. Further, it is given that
 - 1. A did not wear shirt of black color.
 - 2. B did not wear shirt of blue color.
 - 3. C did not wear shirt of orange color.
 - 4. A did not wear pants of green color.
 - 5. B wore pants of orange color.

What were the colors of the pants and shirt worn by C, respectively?

- (a) Orange and black
- (b) Green and blue
- (c) Yellow and blue
- (d) Yellow and black
- Q.28 Only six roads A, B, C, P, Q and R connect a military camp to the rest of the country. Only one out of A, P and R is open at any one time. If B is closed, so is Q. Only one of A and B is open during storms. P is closed during floods. In this context, which one of the following statements is correct?
 - (a) Under normal conditions only three roads are open.
 - (b) During storms at least one road is open.
 - (c) During floods only three roads are open.
 - (d) During calamities all roads are closed.

Directions for the following 2 (Two) items

Examine the information given in the following paragraph and answer the items there follow:

Guest lectures on five subjects viz. Economics, History, Statistics, English and Mathematics have to be arranged in a week from Monday

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to Friday. Only one lecture can be arranged on each day. Economics cannot be scheduled on Tuesday. Guest faculty for History is available only on Tuesday. Mathematics lecture has to be scheduled immediately after the day of Economics lecture. English lecture has to be scheduled immediately before the day of Economics lecture.

- Q.29 Which lecture is scheduled between statistics and English?
 - (a) Economics (b) History
 - (c) Mathematics (d) No lecture
- Q.30 Which lecture is scheduled on Wednesday?
 - (a) Statistics
- (b) Economics
- (c) English
- (d) History
- Q.31 In five flats, one above the other, live five professionals. The professor has to go up to meet his IAS officer friend. The doctor is equally friendly to all, and has to go up as frequently as go down. The engineer has to go up to meet his MLA friend above whose flat lives the professor's friend.

From the ground floor to the top floor, in what order do the five professionals live?

- (a) Engineer, Professor, Doctor, IAS officer, MLA.
- (b) Professor, Engineer, Doctor, IAS officer, MI A
- (c) IAS officer, Engineer, Doctor, Professor, MLA.
- (d) Professor, Engineer, Doctor, MLA, IAS officer.
- Q.32 Given that,
 - 1. A is the brother of B.
 - 2. C is the father of A.
 - 3. D is the brother of E.
 - 4. E is the daughter of B.

Then, the uncle of D is

- (a) A
- (b) B
- (c) C
- (d) E
- Q.33 Examine the following statements:

- 1. Rama scored more than Rani.
- 2. Rani -scored less than Ratna.
- 3. Ratna scored more than Rama.
- 4. Padma scored more than Rama but less than Ratna.

Who scored the highest?

- (a) Rama
- (b) Padma
- (c) Rani
- (d) Ratna

Read the following passage and answer the 3 (three) items that follow:

A, B, C, D and E are members of the same family. There are two fathers, two sons, two wives, three males and two females. The teacher was the wife of a lawyer who was the son of a doctor. E is not a male, neither also a wife of a professional. C is the youngest person in the family and D is the eldest. B is a male.

- Q.34 How is D related to E?
 - (a) Husband
- (b) Son
- (c) Father
- (d) Wife
- Q.35 Who are the females in the group?
 - (a) C and E
- (b) C and D
- (c) E and A
- (d) D and E
- Q.36 Whose wife is the teacher?
 - (a) C
- (b) D
- (c) A
- (d) B

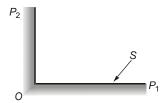
Read the following passage and answer the item that follow:

In a survey regarding a proposed measure to be introduced, 2878 person took part of which 1652 were males. 1226 persons voted against the proposal of which 796 were males. 1425 persons voted for the proposal. 196 females were undecided.

- Q.37 How many males were undecided?
 - (a) 31
- (b) 227
- (c) 426
- (d) 581

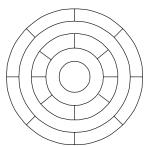
Directions for the following 2 (two) items: Each of the following two items consists of four statements. Of these four statements, two cannot both be true, but both can be false. Study the statements carefully and identify the two that satisfy the above condition. Select the correct answer using the codes given below each set of statements:

Q.38 Consider the figure given below the answer the item that follows:



In the figure shown, OP_1 and OP_2 are two plane mirrors kept perpendicular to each other. S is the direction of a beam of light falling on the mirror OP_1 . The direction of the reflected beam of light from the mirror OP_2 will be

- (a) Perpendicular to direction S.
- (b) At 45° to the direction S.
- (c) Opposite and parallel to the direction S.
- (d) At 60° to the direction S.
- Q.39 Consider the following figure and answer the item that follows:

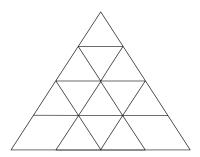


What is the minimum number of different colors required to paint the figure given above such

that no two adjacent regions have the same color?

- (a) 3
- (b) 4
- (c) 5
- (d) 6

Q.40 Consider the following figure and answer the item that follows:



What is the total number of triangles in the above grid?

- (a) 27
- (b) 26
- (c) 23
- (d) 22

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- 1. (c)
- 16. (c)
- 2. (d)
- 17. (c)
- 3. (b)
- 18. (c)
- 4. (b)
- 19. (a)
- 5. (c)
- 20. (d)
- 6. (a)
- 21. (a)
- 7. (c)
- 8. (d)
- 9. (c) 10. (b)
- 11. (b)
- 12. (b)
- 13. (b)
- 14. (b)
- 15. (a)

- 22. (d)
- 23. (c)
- 24. (b)
- 25. (c)
- 26. (c)
- 27. (b)
- 28. (b)
- 29. (b)
- 30. (c)

- 31. (d)
- 32. (a)
- 33. (d)
- 34. (a)
- 35. (c)
- 36. (d)
- 37. (a)
- 38. (c)
- 39. (a)
- 40. (c)