REASONING

Directions (Qs. 1 to 3) : Four of the following five are alike in a certain way and hence form a group. Which is the one that does not belong to the group?

1. (1) Break (2) Change (3) Split (4) Divide
2. (1) Train (2) Instruct (3) Coach (4) Advocate
3. (1) Extend (2) Higher (3) Ascend (4) Rise

4. Which of the following symbols should replace the question mark in the given expression in order to make the expressions ‘A > D’ as well as ‘F ≥ C’ definitely true?
   a) A > B ≥ C ? D ≤ E = F
   b) >
   c) ≥
   d) =

5. In which of the following expressions will the expressions ‘R < P’ as well as ‘S > Q’ be definitely true?
   a) P > Q = R > T < S
   b) S > R > T > Q < P
   c) Q > R ≤ T ≥ P ≥ S
   d) S > T > Q > R ≥ P

6. Read the following information carefully and answer the question which follows:
   If ‘A × B’ means ‘A is father of B’,
   If ‘A + B’ means ‘A is daughter of B’,
   If ‘A ÷ B’ means ‘A is son of B’,
   If ‘A ÷ B’ means ‘A is sister of B’.

   What will come in place of the question mark, to establish that P is the son-in-law of S in the expression?
   P × Q + R ÷ T = S

7. Directions (Qs. 7 to 12) : Study the following information to answer the given questions:

   Twelve people are sitting in two parallel rows containing six people each, in such a way that there is an equal distance between adjacent persons. In row-1 P, Q, R, S, T and V are seated and all of them are facing South. In row-2 A, B, C, D, E and F are seated and all of them are facing North. Therefore, in the given seating arrangement each member seated in a row faces another member of the other row.

   S sits third to right of Q. Either S or Q sits at an extreme end of the line. The one who faces Q sits second to right of E. Two people sit between B and F. Neither B nor F sits at an extreme end of the line. The immediate neighbour of B faces the person who sits third to left of P. R and T are immediate neighbours of each other. C sits second to the left of A. T does not face the immediate neighbour of D.

   7. Who amongst the following sit at extreme ends of the rows?
      (1) S, D (2) Q, A (3) V, C (4) P, D
      (5) Q, F

   8. Who amongst the following faces S?
      (1) A (2) B (3) C (4) D
      (5) F

   9. How many persons are seated between V and R?
      (1) One (2) Two (3) Three (4) Four
      (5) None of these

   10. P is related to A in the same way as S is related to B. Based on the given arrangement, to which of the following is T related to, following the same pattern?
       (1) C (2) D (3) E (4) F
       (5) Cannot be determined

   11. Which of the following is true regarding T?
       (1) F faces T
       (2) V is an immediate neighbour of T
       (3) F faces the one who is second to right of T
       (4) T sits at one of the extreme ends of the line
       (5) Q sits second to the right of T

   12. Four of the following five are alike in a certain way based on the given arrangement and so form a group. Which is the one that does not belong to that group?
       (1) A – T (2) B – T (3) F – P (4) C – V
       (5) E – Q

   Directions (Qs. 13 to 17) : Each of the questions below consists of a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question. Read both the statements and give answer—

   (1) if the data in statement I alone are sufficient to answer the question, while the data in statement II alone are not sufficient to answer the question.
   (2) if the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question.
   (3) if the data either in statement I alone or in statement II alone are sufficient to answer the question.
   (4) if the data even in both statements I and II together are not sufficient to answer the question.
   (5) if the data in both statements I and II together are necessary to answer the question.

   13. Which bag amongst P, Q, R, S and T is the heaviest?
   I. Bag Q is heavier than R and S. Bag T is heavier only than bag P.
   II. Only three bags are lighter than R. The weight of bag Q is 50 kg which is 2 kg more than bag R.

   14. Are all the five friends viz. A, B, C, D and E who are seated around a circular table facing the centre?
   I. A sits third to the left of B. B faces the centre. D and E are immediate neighbours of each other. C sits second to right of E.
   II. D sits second to right of C. C faces the centre. Both E and A are immediate neighbours of D. B sits second to right of A.

   15. In a college five different subjects, viz. Physics, Chemistry, Botany, Zoology and Mathematics are taught on five different days of the same week, starting from Monday and ending on Friday.

   Is Chemistry taught on Wednesday?
   I. Two subjects are taught between Zoology and Mathematics. Mathematics is taught before Zoology. Chemistry is taught on the day immediately next to the day when Physics is taught. Botany is not taught on Friday.
   II. Three lectures are scheduled between the lectures of Botany and Zoology. Mathematics is taught immediately before Physics.
16. Is the time in the clock 9 O'clock now?

I. After half an hour, the minute and the hour hand of the clock will make an angle of exactly 90° with each other.

II. Exactly 15 minutes back, the hour and the minute hand of the clock coincided with each other.

17. Is F the granddaughter of B?

I. B is the father of M. M is the sister of T. T is the mother of F.

II. S is the son of F. V is the daughter of F. R is the brother of T.

Directions (Qs. 18 to 20): Study the following information carefully and answer the given questions:

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement (All the numbers are two digits numbers and arranged as per some logic based on the value of the number).

| Input: win 56 32 93 bat for 46 him |
| Step I: 93 56 32 bat for 46 him |
| Step II: 11 93 56 32 bat for 46 him |
| Step III: 56 11 93 32 bat for 46 him |
| Step IV: 28 56 11 93 32 bat for 46 him |
| Step V: 46 28 56 11 93 32 bat for 46 him |
| Step VI: 32 46 28 56 11 93 32 bat for 46 him |

As per the rules followed in the above steps, find out in each of the following questions the appropriate steps for the given input.

Input for the questions:

Input: fun 89 at the 28 16 base camp

Directions (Qs. 21 to 27): Read the following information and the sentences (A), (B), (C), (D) and (E) given below it carefully and answer these questions:

A host of foreign companies are in talks with the Indian government for selling B 150, a tough, short haul plane ideal for connectivity of smaller towns which is lacking in India at present.

(A) B 150 planes not only have low operating costs than competing planes like Cezana but also a much better track record in terms of safety and efficiency.

(B) The profit margin of road transport operators in the smaller towns connected by B 150 planes has been reduced substantially as a majority of people prefer air transport over other means of transport.

(C) Smaller towns, at present, are better connected by roads and railways as compared to flight services.

(D) B 150 planes are capable of operating in sectors where large airlines cannot fly due to challenging conditions such as mist, short runways, etc. Such planes can also double up as cargo planes and charter flights for the rich and the elite.

(E) B 150 planes need to operate in the existing airports which are situated in bigger cities only and are poorly connected to the smaller cities.
28. Which of the statements (A), (B), (C), (D) and (E) can be inferred from the facts/information given in the statement?

An inference is something which is not directly stated but can be inferred from the given facts.

(1) Only A  (2) Only B  (3) Only C  (4) Both A and D  (5) Only E

29. Which of the statements (A), (B), (C), (D) and (E) mentioned above would weaken the offer made by the foreign companies for selling 150 planes to Indian government?

(1) A  (2) B  (3) C  (4) D  (5) E

30. Which of the statements (A), (B), (C), (D) and (E) mentioned above represents a possible consequence of the success of 150 planes in smaller cities?

(1) A  (2) B  (3) C  (4) D  (5) E

31. Which of the statements (A), (B), (C), (D) and (E) would favour the foreign companies' bid to sell 150 planes in India?

(1) Only A  (2) Only B  (3) Both A and C  (4) Both A and D  (5) Both B and E

Directions (Qs. 32 to 37): Study the following information to answer the given questions:

In a certain code, 'always create new ideas' is written as 'ba ri sha gi', 'ideas and new thoughts' is written as 'fa gi ma ri', 'create thoughts and insights' is written as 'ma jo ba fa' and 'new and better solutions' is written as 'ki ri to fa'.

32. What is the code for 'ideas'?

(1) sha  (2) ba  (3) gi  (4) ma  (5) Cannot be determined

33. What does 'fa' stand for?

(1) thoughts  (2) insights  (3) new  (4) and  (5) solutions

34. 'fa lo ba' could be a code for which of the following?

(1) thoughts and action  (2) create and innovate  (3) ideas and thoughts  (4) create new solutions  (5) always better ideas

35. What is the code for 'new'?

(1) ki  (2) ri  (3) to  (4) fa  (5) ba

36. Which of the following may represent 'insights always better'?

(1) jo ki to  (2) ki to ri  (3) sha jo ri  (4) to sha jo  (5) sha to ba

37. What is the code for 'thoughts'?

(1) ma  (2) fa  (3) ba  (4) jo  (5) Either jo or fa

38. Read the following information carefully and answer the question which follows.

All existing and upcoming hotels within the 5 km radius of national parks and sanctuaries in India will have to pay 30% of their annual turnover as tax to the government.

Which of the following statements can be inferred from the facts/information given in the above statement?

(1) The tax collected from the hotels will be used for upkeep of these national parks and sanctuaries.
(2) Hotels which are sponsored by the government will not have to pay any tax even if these are located within the 5 km radius of such wildlife hotspots.
(3) Ecosystem of the national parks and sanctuaries is adversely affected even if the hotels are located outside the 5 km radius.
(4) Government allows the construction of hotels within 5 km radius of national parks and sanctuaries.
(5) Such a step is taken by the environment ministry to boost eco-tourism and perk up revenue collection of State governments.

39. Read the following paragraph and answer the question which follows.

Tenants' associations have demanded a 'vacancy tax' on all vacant and unsold flats in Mumbai.

Which of the following would support the demand made by the tenants' association?

(1) House owners too have demanded for laws that make it easier to evict tenants who default on rent payment.
(2) Such a tax law would be difficult to implement as it would be difficult to record the number of vacant flats in the city.
(3) People with surplus money buy many houses and rent these out while many consumers cannot afford even their first house.
(4) The number of vacant flats in Mumbai is much lower than other metros such as Delhi and Chennai where vacancy tax already exists.
(5) Such a tax could compel the house owners to sell/rent properties which in turn would control hoarding and sky rocketing of property prices.

Directions (Qs. 40 to 47): In each question below are two/three statements followed by two conclusions numbered I and II. You have to take the two/three given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

Give answer—

(1) if only conclusion I follows.
(2) if only conclusion II follows.
(3) if either conclusion I or conclusion II follows.
(4) if neither conclusion I nor conclusion II follows.
(5) if both conclusion I and conclusion II follow.

40. Statements:

All rings are circles.
All squares are rings.
No ellipse is a circle.

Conclusions:

I. Some rings being ellipses is a possibility.
II. At least some circles are squares.

41. Statements:

No house is an apartment.
Some bungalows are apartments.

Conclusions:

I. No house is a bungalow.
II. All bungalows are houses.

42. Statements:

Some gases are liquids.
All liquids are water.
Conclusions:
I. All gases being water is a possibility.
II. All such gases which are not water can never be liquids.

43. Statements:
All minutes are seconds.
All seconds are hours.
No second is a day.

Conclusions:
I. No day is an hour.
II. At least some hours are minutes.

Directions (Qs. 44 & 45):
Statements:
Some teachers are professors.
Some lecturers are teachers.

44. Conclusions:
I. All teachers as well as all professors being lecturers is a possibility.
II. All those teachers who are lecturers are also professors.

45. Conclusions:
I. No professor is a lecturer.
II. All lecturers being professors is a possibility.

Directions (Qs. 46 to 50): In each of the questions given below which one of the five answer figures on the right should come after the problem figures on the left, if the sequence were continued?