## Subject: - Reasoning

Direction: Complete the following series with the alternatives provided in each question.

1. EPYEJ? ?
(a) U, V
(b) $B, M$
(c) $\mathrm{W}, \mathrm{X}$
(d) J, M
(e)

None of these
2. $b a \_b a$ $\qquad$ bba a a_bbb__a a
(a) ba a b a b
(b) $b a b b a b$
(c) b b b a a a
(d) babbaa
(e) $\mathrm{b} a$ baba

Direction: Complete the following number series with the alternatives provided in each question.
3. $8,1,9,10,19,29$, ?, 27
(a) 38
(b) 48
(c) 40
(d) 52
(e) 32
4. 55, 54, 52, 49, ?, ?
(a) 48, 46
(b) 45,40
(c) 45,39
(d) 45, 38
(e)

46, 35
Direction: Study the following alpha-numeric arrangement and answer the question given below.
B 84 CRM9NPDKWFA2EJ 7 XUQHLTY6GS
5. Complete the following sequence with reference to the above arrangement. BRC, 8MR, 49M, ?
(a) CNP
(b) 4 PN
(c) 4 N 9
(d) None of these
(e) $7 X U$

Direction: Answer the question with reference to the symbol-letter-number sequence given below.
$2 \mathrm{PJ} @ 8$ \$ L B 1 V \# Q 6 \& G W 9 K CD $3=\mathrm{f} 5 \mathrm{FR} 7 \mathrm{~A} 44$
6. How many symbol and number is there in the sequence which are either immediately preceded or followed by the letter from the first half of the English alphabet?
(a) 7
(b) 5
(c) 8
(d) 10
(e) 9

Direction: Answer the following one is similar in relation to their position right symbol/letter/number. Now, how many letters are there in the sequence which are immediately followed by a number and immediately preceded by a symbol?
EKM3P5RTVZ9DIFQX46GHJ28W
7. Four of the following five are alike in a certain way as regard to their position in the above sequence. Which is unlike the other four?
(a) 3 E
(b) 73
(c) F9
(d)
4A
(e) 4 H
8. ACDE : OGHI : : ESTU : ?
(a) ABCD
(b) EPQU
(c) XYZE
(d) HKGO
(e) PQAB
9. 'Coal' is related to 'heat' in the same ways as 'wax' is related to
(a) Honey
(b) Bee
(c) Light
(d) Energy
(e)

Candle
10. Clay is to pottery, as gold is to
(a) Women
(b) Goldsmith
(c) Ornaments
(d) Metal
(e)

Diamond
Direction: Find the odd one among the following.
11. (a) H G F E
(b) P O N M
(c) D C B A (d) M S T U
(e) None of these

Direction: Find the odd one out.
12. (a) 2397
(b) 3729
(c) 4578
(d) 9732
(e) 8327

Direction: Find the odd one out.
13. (a) Lung
(b) Kidney
(c) Liver
(d) Eyes
(e) None of these
14. (a) Maize
(b) Wheat

None of these
Direction: Study the codes given below and based on the same code, solve the question that follows.
15. If $135 * 604=43056$ and $27 * 698=82976$, then $32 * 864=$ ?
(a) 43682
(b) 43628
(c) 82643
(d) 82634
(e)

82682
Direction: Study the code given below for 'CIRULATED' and based on the same coede, draw up codes for the following words.
Word:
CIRCULATED
Code:
ektwncx
16. HATED/HATEDLY
(a) icufemz
(b) jcxna
(c) jcvgfna
(d) icuxmz
(e) ijfezm
Direction: Given below are combinations of an operation and an operand.
(A) means ' $\div 3$ '
(B) means ' $\times 3$ ';
(C) means '- 3';
(D) means ' +3 ';
(E) means ${ }^{`} \div 2^{\prime}$;
(F) means ' $\times 2$ ';
(G) means '- 1 ';
(H) means '+ 2';

Select the appropriate choice to replace the question mark in the equations.
17. $18 \times 3 \div 2+3<27$ (?)
(a) (D) followed by (A)
(b) (A) followed by (G)
(c) (D) followed by (G)
(d) (D) followed by (H)
(e) None of these

Direction: In a certain code, the symbol for 0 (zero) is ' $\alpha$ ' and for 1 (one) is ' $\$$ '. There is no other number than one. The numbers greater than 1 are to be written only by using the two symbols given above. The value of the symbols for 1 doubles itself every time it shifts one place to the left. Study the following example.
0 is written as \&; 1 is written as \#; 2 is written as \#\&;
3 is written as \#\#; and 4 is written as \#\&\& and so on.
18. Which of the following numbers will be represented by \#\#\&\#?
(a) 8
(b) 11
(c) 13
(d) 12
(e)

None of these
Direction: In each question below, there is a word written in capital letters, with one letter underlined. For each underlined letter in that word there is a code written in small letters. Find the code for the underlined letter. Please note that the same letter appearing in other word(s) may be coded differently.
19. PRISM
(a) $r$
(b) 0
(c) $h$
(d) q
(e) i
20. $A$ is the father of $X$. $B$ is the mother of $Y$. The sister of $X$ and $Z$ is $Y$. Which of the following statements is definitely not true?
(a) $B$ is the wife of $A$
(b) B has one daughter
(c) $Y$ is the son of $A$
(d) X is the sister of Z
(e) $B$ is the mother of $Z$

Direction: Study the following information and answer the questions given below.
(i) There are six people in a family (A, B, C, D, E, F).
(ii) $C$ is the wife of $B$ and the mother of $F$.
(iii) F is the granddaughter of E .
(iv) $D$ is the grandmother of $A$ and the mother of $B$.
(v) There are two married couples in the family.
21. Which of the following is true?
(a) $A$ is the sister of $F$
(b) $A$ is the brother of $F$
(c) B has two daughters
(d) none of these
(e) $F$ is father of $A$

Direction: Study the following information and answer the questions given below.
(i) $A, B, C, D, E$, and $F$ are six members of a family
(ii) One is a student, one housewife, one doctor, one teacher, one lawyer, and one engineer.
(iii) There are two married couples in the family.
(iv) $B$ is a teacher and the mother of $C$.
(v) $D$ is the grandmother of $C$ and is a housewife.
(vi) F is a lawyer and is the father of A .
(vii) $C$ is the brother of $A$. $E$ is the father of $F$ and is a doctor.
(viii) $E$ is the father of $F$ and is a doctor.
22. Which of the following statements is definitely true?
(a) $A$ is an engineer
(b) E is the father of the teacher
(c) $D$ is the mother of the teacher
(d) $F$ is the father of the engineer
(e) $C$ is the father of the engineer

Direction: Using the following information, answer the questions given below.
(i) In a family of six ( $1,2,3,4,5$ and 6 ), there are two married couples.
(ii) 4 is the grandmother of 1 and the mother of 2 .
(iii) 3 is the wife of 2 and the mother of 6 .
(iv) 6 is the granddaughter of 5 .
23. Which of the following is true?
(a) 1 is the sister of 6
(b) 1 is the brother of 6
(c) 2 has two daughters
(d) 4 has two grandchildren
(e) 3 is sister of 6
24. Vandana starts walking towards the east and, after covering a distance of 20 m , she turns left and runs for 15 m . She then turns to her right and moves 25 m . From here, she again turns right and walks for 15 m . How far is she from the starting point?
(a) 40 m
(b) 45 m
(c) 50 m
(d) 60 m
(e) 20
25. Rohit is as much younger to Neelu as he is older to Prince. If the sum of the ages of Neelu and Prince is 48 years, how old is Rohit?
(a) 20
(b) 24
(c) 28
(d) 32
(e) 22

Direction: There are 125 cubes of similar size arranged in the form of a bigger cube ( 5 cubes on each side, that is, $5 * 5 * 5$ ). From one corner of the top layer of this cube, four smaller cubes $(2 * 2 * 1)$ are removed. From the column on the opposite side, two cubes $(1 * 1 * 2)$ are removed. From the third corner too, three cubes ( $1 * 1 * 3$ ) are removed, and from the fourth column four cubes $(1 * 1 * 4)$ are removed. All exposed faces of the block thus formed are coloured red.
26. A cube is painted green on all sides. It is then cut into 64 cubes of equal size. How many of these smaller cubes are painted on one side only?
(a) 4
(b) 8
(c) 16
(d) 24
(e) 12

Direction: Answer the following questions based on the letter-number sequence given gelow.
EKM3P57RTVZ9D1FQX46GHJ28W
27. Which of the following is exactly in the middle between the seventh letter/number from the left end and the ninth letter/number from the right end of the above sequence?
(a) D
(b) 9
(c) 1
(d) there is no such letter/number
(e) None of these
28. If only the consonants in the word MEAT are changed in such a way that each of them becomes the next letter in the English alphabet and the remaining letters are kept unchanged, then how many meaningful words can be formed with the new set of letters using each letter only once in a word?
(a) None
(b) 2
(c) 3
(d) 1
(e)

None of these
Direction: Answer the following questions based on the symbol-letter-number sequence given below.
2 P J @ 8 \$ L B 1 V \# Q 6 dG W 9 KCD 3 . D £ 5 FR 7 AY 4
29. How many symbols and numbers are there in the sequence which are ei-there immediately preceded or immediately followed by the letter which is from the first half of the English alphabet?
(a) 6
(b) 7
(c) 8
(d) 9
(e)

None of these
30. In the word CONTRACTUAL, the positions of the first and the eleventh letters and interchanged. Similarly the positions of the second and tenth letters are interchanged and so on upto the positions of fifth and seventh letters are interchanged keeping the position of sixth letter unchanged. Which letter will be the third to the right of the sixth letter from the left end?
(a) T
(b) N
(c) U
(d) A
(e)

None of these
Direction: Each of the questions below consists of a question and two statements marked 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 are statements and give answer (i) if the data in statement I alone is sufficient to answer the question, while the data in statement II alone is not sufficient to answer the question.
Give answer (ii) if the data in statement II alone is sufficient to answer the question, while the data in statement I alone is not sufficient to answer the question.
Give answer (iii) if the data either in statement I or in statement II alone is sufficient to answer the question.
Give answer (iv) if the data in both the statement together is not sufficient to answer the question.

Given answer (v) if the data in both statements I and II together and needed to answer the question.
31. Who among Satish, Vilas, Jayant and Naresh is the tallest?
I. Satish is taller than Jayant who is not as tall as Vilas but is taller than Naresh.
II. Vilas is not taller than Satish.
(a) (i)
(b) (ii)
(c) (iii)
(d) (iv)
(e) $(\mathrm{v})$

Direction: In an office there are eight sections named I, II, III, IV, VI, VII, and VIII. No visitor is allowed to visit one section for more than an hour. If a visitor has to visit more than one section he has to come back to the security officer to get a fresh visitor's pass by surrendering the earlier section's pass.
Every hour the security officer generates seven passwords for all sections by choosing a set of seven words, which is used for Section I which is the reception-cum-visitors hall. Following is an illustration of the generation of seven passwords for each section:
Section I : sri am cue way meat fro le
II : le cue am way meat fro sri
III : cue le way am meat sri cue
IV : fro way le am meat sri cue
V : way fro am le meat cue sri and so on till Section VIII.
32. A visitor wanted to visit Section VI but he was wrongly given the password for Section IV 'ear two it rye sit he wu'. What would be his correct password for Section VI, if hourly password remains the same?
(a) he rye ear it sit wu two
(b) two ear rye it sit wu he
(c) wu it two rye siot he ear
(d) rye he it ear sit two wu
(e) None of these
33. From a point, Rajneesh started walking towards east and walked 35 m . He then turned towards his right and walked 20 m and he again turned right and walked 35 m . Finally he turned to his left and walked 20 m and he reached his destination. Now, how far is he from his starting point?
(a) 50 m
(b) 55 m
(c) 20 m
(d) 40 m
(e) None of these
34. Manish remembers that his father had called him after the $16^{\text {th }}$ but before the $21^{\text {st }}$ of the month, while Suresh remembers that father had called after the $19^{\text {th }}$ but before the $22^{\text {nd }}$. On which date had father called?
(a) $10^{\text {th }}$
(b) $17^{\text {th }}$
(c) $20^{\text {th }}$
(d) $19^{\text {th }}$
(e)

None of these
35. Four of the following five are alike in a certain way and so form a group. Which is the one that does not belong to the group?
(a)Kanpur
(b) Chennai
(c) Dispur
(d) Kolkata
(e) Jaipur
36. A man walks 30 m towards south, then turning to his right, he walks 30 m . Then turning to his left, he walks 20 m . Again he turns to his left and walks 30 m . How far is he from his initial position?
(a) 80 m
(b) 60 m
(c) 30 m
(d) 20 m
(e)

None of these
Direction: Study the statements (A), (B), (C), (D) and (E) and answer the following question:
(A) 1, 5, 9 means 'You better go.'
(B) 1, 6, 7 means 'Better come here.'
(C) 5, 6, 7 means 'You come here.'
(D) 1, 5, 6 means 'Better you here.'
(E) 3, 7, 9 means 'Come and go.'
37. Which of the following group of minimum statements are necessary to find the code number for 'better'?
(a) A and B
(b) D and E
(c) C and D
(d) B and E
(e) None of these
38. Ram walks 10 m south from his house, turns left and walks 25, again turns left and walks 40 m , then turns right and walks 5 m to reach his school. In which direction is the school from his house?
(a) South-west
(b) North-east
(c) East
(d) North
(e)

South-east
Direction: Read the following and answer the questions given below it.
In a certain code language: (i) '481' means 'Sky is blue'; (ii) '246' means 'Sea is deep'; and (iii) '698' means 'Sea looks blue'.
39. What number is the code for 'looks'?
(a) 4
(b) 8
(c) 6
(d) 9
(e) 2
40. Shivani's mother was three times older than Shivani 5 years ago. After 5 years, she will be twice as old as Shivani. How old is Shivani today?
(a) 10 years
(b) 5 years
(c) 15 years
(d) 12 years
(e) 18 years
41. A directional post is erected on a crossing. In an accident, it was turned in such a way that the arrow which was first showing east is now showing sough. A passerby went in a wrong direction thinking it is west. In which direction is he actually traveling now?
(a) South
(b) North
(c) East
(d) West
South-east
(e)

Direction: Select the pair in which the words bear the same relationship to each other as the words in the given pair.
42. Cells: Cytology
(a) Worm: Ornithology
(b) Insect: Entomology
(c) Disease: Anatomy
(d) Tissue: Physiognomy
(e) None of these

Direction: In the following questions, three similar words have been given. Choose a suitable description for these words from the options provided.
43. Sandy rock, Lime rock, Coal
(a) These are made of metamorphic rocks
(b) These are chemical minerals
(c) These are situated on the banks of rivers
(d) These are made of sedimentary rocks
(e) None of these

Direction: Find the odd man out.
44. (a) Earth
(b) Moon
(c) Venus
(d) Mars
(e)

Uranus
Direction: Find the missing number in each of the following question.
45. $0,2,8,14,24,34, \ldots$ ?
(a) 48
(b) 42
(c) 40
(d) 36
(e) 38

Direction: Choose the alternative which has the same relationship as the first two pairs.
46. Chromate : Chromium : : Ilmenite : ?
(a) Lime
(b) Cobalt
(c) Manganese
(d) Titanium
(e) Alluminium
47. Ram's age was square of a number last year and it will be cube of a number next year. How long must he wait before his age is again the cube of a number?
(a) 39 years
(b) 10 years
(c) 38 years
(d) 64 years
(e) 32 years
48. Arrange the following in a meaningful order:

Doctor, Fever, Medicine, Medical Shop
(a) Medical Shop, Medicine, Fever, Doctor
(b) Fever, Doctor, Medical Shop, Medicine
(c) Doctor, Medical Shop, Medicine, Fever
(d) Medicine, Doctor, Medical Shop, Fever
(e) Medical Shop, Medicine, Doctor, Fever
49. TLRIA is related to Would in the same way as YBVLKA is related to
(a) Matter
(b) Before
(c) Beyond
(d)Normal
(e) After
50. I am facing the North East-direction. I turn $90^{\circ}$ clockwise, then $180^{\circ}$ anticlockwise, and then another $90^{\circ}$ in the same direction. Which direction am I facing now?
(a) West
(b) South
(c) South-west
(d) South-east
(e) East

Answer of these Questions:-

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| D | D | B | B | C | C | E | B | C | C |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| D | $\mathbf{C}$ | $\mathbf{C}$ | $\mathbf{D}$ | $\mathbf{B}$ | $\mathbf{B}$ | $\mathbf{D}$ | $\mathbf{C}$ | $\mathbf{A}$ | $\mathbf{C}$ |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| $\mathbf{D}$ | $\mathbf{D}$ | $\mathbf{A}$ | $\mathbf{B}$ | $\mathbf{B}$ | $\mathbf{D}$ | $\mathbf{D}$ | $\mathbf{E}$ | $\mathbf{C}$ | $\mathbf{C}$ |
| 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| $\mathbf{E}$ | $\mathbf{A}$ | $\mathbf{D}$ | $\mathbf{C}$ | $\mathbf{A}$ | $\mathbf{E}$ | $\mathbf{A}$ | $\mathbf{B}$ | $\mathbf{D}$ | $\mathbf{C}$ |
| 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 |
| $\mathbf{A}$ | $\mathbf{B}$ | $\mathbf{D}$ | $\mathbf{B}$ | $\mathbf{A}$ | $\mathbf{D}$ | $\mathbf{C}$ | $\mathbf{B}$ | $\mathbf{C}$ | $\mathbf{C}$ |

