1. If $1 + 2 = 5$, $3 + 4 = 25$ what is $5 + 6$?
   A) 11   B) 125   C) 625   D) 61

2. If GEM = NJZ, what is KID = ?
   A) VRH   B) LOG   C) BOY   D) SKR

3. A sum of money triples itself in 8 years at a certain rate of SI, How long will it take for it to become 5 times at the same rate of interest?
   A) 14 years   B) 15 years   C) 16 years   D) 18 years

4. ABC partnership firm earned a profit of Rs. 1,20,393 to be distributed between A, B, C in the ratio of 5 : 3 : 1. How much did B get?
   A) 40,131   B) 13,377   C) 23,145   D) 43,491

5. What is baking soda?
   A) Potassium permanganate   B) Sodium chloride
   C) Sodium bicarbonate   D) Sodium carbonate

6. Who is the Chief Election Commissioner of India?
   A) Om Prakash Rawat   B) Dr. Nasim Zaidi
   C) Achal Kumar Jyoti   D) Harishankar Brahma

7. Which of the following is a perfect square?
   A) 0.09   B) 8.1   C) 0.025   D) All

8. The compound interest on a principal for a period of 2 years @ 5% p. a. is Rs.10 more than the simple interest at the same rate and term. Find the principal.
   A) 5,000   B) 4,500   C) 4,000   D) 3,500

9. Mammal : Human as Flower:
   A) Smell   B) Living   C) Bouquet   D) Rose

10. A shopkeeper marks his goods at 25% above cost price and allows discount of 25% on marked price. What is the overall profit or loss %?
    A) 25% Profit   B) 25 % Loss   C) 20 % Profit   D) 16.67% Profit.

11. To what does the Chandrasekhar limit apply to?
    A) Stars   B) Volcanoes   C) Speed of light   D) Plant life

12. What comes next in the series?
    DQ, FS, HU, .......
    A) JW   B) JK   C) IW   D) BR

13. Two numbers are in the ratio 7 : 12 when 7 is added to both the ratio between them becomes 7 : 11. Find the smallest of them?
    A) 7   B) 28   C) 35   D) 12
14. If 'TIRE' is written as 69185, 'SNOW' is written as 1914523, then 'RAIN' is written as?
   A) 81914  B) 18169  C) 181914  D) 189114

15. An example of a rhizome is
   A) Carrot  B) Sweet potato  C) Garlic  D) Ginger

16. A 250 m train crosses a pole in 8 seconds, if it takes 20 seconds to cross a platform, how long is the platform?
   A) 375 m  B) 625 m  C) 500 m  D) 675 m

17. Who painted the 'Last Supper'?
   A) Michael Angelo  B) Leonardo da Vinci  C) Pablo Picasso  D) Rembrandt

18. Find the odd one out: Queen, Spade, Square, Diamond
   A) Queen  B) Spade  C) Square  D) Diamond

19. What symbols would replace the question mark
   72 ? 8 ? 3 = 27
   A) +, ×  B) ×, ÷  C) ÷, ×  D) ×, −

20. How old are the Bhimbetka caves thought to be?
   A) 1000 years  B) 5000 years  C) 30,000 years  D) 300 years

21. Below are given statements followed by some conclusions. You have to take the given statements to be true even if they seem to be at variance with the commonly known facts.
   Statements: 1. Some doctors are mechanics.
               2. All mechanics are tall.
   Conclusion: I. All doctors are short.
               II. Some mechanics are men.
   Decide which of the given conclusions logically follow(s) from the given statements.
   A) Only conclusion I follows  B) Only conclusion II follows
   C) Either I or II follow  D) Neither I nor II follow

22. The ratio of ages of A and B is 1 : 2. In 7 years hence their ratio would be 3 : 5. Find their current ages?
   A) 14 & 28  B) 6 & 12  C) 15 & 30  D) 10 & 20

23. Which of the following increases the greenhouse effect?
   A) Krypton  B) Carbon dioxide  C) Nitrogen  D) Oxygen

24. If '+' is '÷' and '−' is '×', what is 8 + 6 − 3 ?
   A) 11  B) 6  C) 5  D) 14

25. Which of the following languages use ideographs?
   A) Japanese  B) Italian  C) French  D) English

26. Solve: \(a^6 \times a^{-4} \div a^3\)
   A) \(a^2\)  B) \(a\)  C) \(\frac{1}{a}\)  D) \(\frac{1}{a^2}\)
Directions (Q.No: 27 – 28): Read the following information and answer the following questions below.

In a class of 40 students 24 students can play kho-kho, 20 can play kabaddi and 38 students can play any one game.

27. How many do not play any game?
   A) 4        B) 6        C) 3        D) 2

28. How many do not play Kabaddi?
   A) 18        B) 22        C) 20        D) 24

29. How many play both games?
   A) 2        B) 6        C) 8        D) 4

30. If \(4^3 \times 5^6 = 10^m\), find m.
   A) 4        B) 6        C) 8        D) 2

31. Below are given statements followed by some conclusions. You have to take the given statements to be true even if they seem to be at variance with the commonly known facts.

   Statements: 1. No woman teacher can sing.
               2. Some women teachers can dance.

   Conclusions: I. All women teachers can dance.
               II. No teacher can sing.

   Decide which of the given conclusions logically follow(s) from the given statements.
   A) Only conclusion I follows        B) Only conclusion II follows
   C) Both I and II follow             D) Neither I nor II follow

32. The following chart shows the games played by students of a class. If 165 students play Game D, how many students are there in the school?

   A) 1012     B) 1650     C) 3300     D) 1000

33. What comes next in the series:
    36, 100, 196, .......
   A) 256        B) 288        C) 324        D) 356

34. A lady introducing a man says 'his brother's father was the only son of my grand father'. How is the lady related to the man?
   A) Mother      B) Grandmother  C) Sister      D) Daughter
35. A circle has the largest chord measuring 10 cm and smallest chord measuring 4 cm. Find the radius of the circle.
   A) 20 cm    B) 5 cm    C) 8 cm    D) 2 cm
36. Foot : Inch as Metre :
   A) Kilometre    B) Centimetre    C) Length    D) Measure

Directions (Q.No: 37 – 39): Refer the table below and answer the following questions.

The number of male participants is half that of total participants.

There are only male participants in acting.

<table>
<thead>
<tr>
<th>Field</th>
<th>Punjab</th>
<th>W.Bengal</th>
<th>Kerala</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singing</td>
<td>60</td>
<td>46</td>
<td>74</td>
<td>180</td>
</tr>
<tr>
<td>Dancing</td>
<td>90</td>
<td>74</td>
<td>120</td>
<td>284</td>
</tr>
<tr>
<td>Acting</td>
<td>40</td>
<td>20</td>
<td>36</td>
<td>96</td>
</tr>
</tbody>
</table>

37. What is the total number of male participants?
   A) 328    B) 280    C) 364    D) 428
38. What is the total number of female participants?
   A) 186    B) 271    C) 232    D) 290
39. Which state has the maximum number of male participants?
   A) Punjab    B) West Bengal    C) Kerala    D) None
40. If area of a parallelogram ABCD is 25 sq.cm. find the area of triangle BCD.
   A) 25 cm    B) 25 sq.cm    C) 12.5 cm    D) 12.5 sq.cm
41. Cost Price of article is Rs.1200, and a discount of 10% is allowed while selling the article. Had the article been selling Rs.90 extra, what is the percent of gain or loss?
   A) 2.5 %    B) 5%    C) 7.5%    D) 10%
42. Median of following numbers is?
   23, 24, 23, 27, 21, 23, 26
   A) 23    B) 24    C) 26    D) 27
43. An amount of 10,000 lent at compound interest at the rate of 6% per year. What would be the compound interest after 2 years?
   A) 1200    B) 1221    C) 1236    D) 1250
44. A person travelled with a speed of 50 KMPH for 1 hour and with 20 KMPH for next 2 Hours. Find the average speed for whole journey?
   A) 25 KMPH    B) 30 KMPH    C) 35 KMPH    D) 40 KMPH
45. LCM of two numbers is 120 and their HCF is 12, if one of the number is 24. Find the other number?
   A) 60    B) 36    C) 78    D) 96
46. Perimeter of rectangle is 72 cm, Its length is 8 cm more than its breadth. Area of rectangle is?
   A) 308 sq. cm    B) 256 sq. cm    C) 512 sq. cm    D) 296 sq. cm
47. Sum of two numbers is 75, and their ration is 2 : 3. Find the largest number.
   A) 15    B) 30    C) 40    D) 45
KEY
1-D; 2-A; 3-C; 4-A; 5-C; 6-B; 7-D; 8-C; 9-D; 10-A; 11-A; 12-A; 13-B; 14-C; 15-D; 16-A; 17-B; 18-C; 19-C; 20-C; 21-D; 22-A; 23-B; 24-B; 25-A; 26-C; 27-D; 28-C; 29-B; 30-B; 31-B; 32-A; 33-C; 34-C; 35-B; 36-B; 37-A; 38-A; 39-C; 40-D; 41-A; 42-D; 43-C; 44-B; 45-A; 46-A; 47-D.