## 19GET275 - VQAR I - IAE - QUESTION BANK

Part - A
1 How many of the following numbers are divisible by 132?
264, 396, 462, 792, 968, 2178, 5184, 6336

| a) 4 | b) 5 |
| :--- | :--- |
| c) 6 | d) 7 |

2 Identify the greatest number that will divide 43,91 and 183 so as to leave the same remainder in each case.
a) 4
b) 7
c) 9
d) 13

3 The H.C.F. of two numbers is 23 and the other two factors of their L.C.M. are 13 and 14. Identify the larger of the two numbers.

| a) 276 | b) 299 |
| :--- | :--- |
| c) $\mathbf{3 2 2}$ | d) 345 |

4 Six bells commence tolling together and toll at intervals of $2,4,6,810$ and 12 seconds respectively. In 30 minutes, how many times do they toll together?

| a) 4 | b) 10 |
| :--- | :--- |
| c) 15 | d) 16 |

5 The greatest number of four digits which is divisible by $15,25,40$ and 75 is:
a) 9000
b) 9400
c) 9600
d) 9800

6 Identify the cube root of .000216
a) -6
b) . 06
c) 77
d) 87

7 What should come in place of both $x$ in the equation $\frac{x}{\operatorname{Sqrt}(128)}=\frac{\operatorname{Sqrt}(162)}{x}$.

| a) $\mathbf{1 2}$ | b) 14 |
| :--- | :--- |
| c) 144 | d) 196 |

8 The least perfect square, which is divisible by each of 21,36 and 66 is:

| a) $\mathbf{2 1 3 4 4 4}$ | b) 214344 |
| :--- | :--- |
| c) 214434 | d) 231444 |

9 What decimal of an hour is a second?
a) .0025
b) .0256
c) $\mathbf{. 0 0 0 2 7}$
d) .000126

10 Find the L.C.M of 2.5, 0.5 and 0.175 .
a) 17.5
b) 7.5
c) 2.5
d) 5

11 The L.C.M of 4.5, 0.009 and $0.18=$ ?

|  | a) 0.225 | b) 2.25 |
| :---: | :---: | :---: |
|  | c) 45 | d) 4.5 |
| 12 | The L.C.M of two numbers is 1890 and their H.C.F is 30 . If one of them is 270 , the other will be |  |
|  | a) 210 | b) 220 |
|  | c) 320 | d) 310 |
| 13 | The H.C.F of two numbers is 11 , and their L.C.M is 616 . If one of the numbers is 88 , find the other. |  |
|  | a) 87 | b) 88 |
|  | c) 77 | d) 97 |
| 14 | The HCF and LCM of two numbers are 12 and 144 respectively. If one of the numbers is 36 , the other number is |  |
|  | a) 432 | b) 72 |
|  | c) 4 | d) 48 |
| 15 | The largest 4 digit number exactly divisible by 88 is |  |
|  | a) 9944 | b) 9768 |
|  | c) 9988 | d) 8888 |
| 16 | Identify the cube root of .000216 |  |
|  | a) -6 | b) 0.6 |
|  | c) 87 | d) 77 |
| 17 | Three number are in the ratio of $3: 4: 5$ and their L.C.M. is 2400. Their H.C.F. is |  |
|  | a) 40 | b) 80 |
|  | c) 120 | d) 200 |
| 18 | The H.C.F. of 1.08, 0.36 and 0.9 is |  |
|  | a) 0.03 | b) 0.9 |
|  | c) 0.18 | d) 0.108 |
| 19 | The least multiple of 7, which leaves a remainder of 4, when divided by $6,9,15$ and 18 is |  |
|  | a) 74 | b) 94 |
|  | c) 184 | d) 364 |
| 20 | What is the smallest number which when increased by 6 is divisible by 36,63 and 108? |  |
|  | a) 750 | b) 752 |
|  | c) 754 | d) 756 |
| 21 | Which one of the following is not a prime number? |  |
|  | a) 31 | b) 61 |
|  | c) 71 | d) 91 |
| 22. | $\left(112 \times 5^{4}\right)=$ ? |  |
|  | a) 67000 | b) 70000 |
|  | c) 76500 | d) 77200 |

23. What least number must be added to 1056 , so that the sum is completely divisible by 23 ?
a) 2
b) 3
c) 18
d) 21
24. How many of the following numbers are divisible by 132? 264, 396, 462, 792, 968, 2178, 5184, 6336
a) 4
b) 5
c) 6
d) 7
25. Identify the greatest number that will divide 43,91 and 183 so as to leave the same remainder in each case.
a) 4
b) 7
c) 9
d) 13
26. The H.C.F. of two numbers is 23 and the other two factors of their L.C.M. are 13 and 14. Identify the larger of the two numbers.
a) 276
b) 299
c) 322
d) 345
27. Six bells commence tolling together and toll at intervals of 2, 4, 6, 810 and 12 seconds respectively. In 30 minutes, how many times do they toll together?
a) 4
b) 10
c) 15
d) 16
28. The greatest number of four digits which is divisible by $15,25,40$ and 75 is:
a) 9000
b) 9400
c) 9600
d) 9800
29. Identify the cube root of .000216
a) -6
b) .06
c) 77
d) 87
30. What should come in place of both $x$ in the equation $\frac{x}{\operatorname{Sqrt}(128)}=\frac{\operatorname{Sqrt}(162)}{x}$.
a) 12
b) 14
c) 144
d) 196
31. The least perfect square, which is divisible by each of 21,36 and 66 is:

| a) 213444 | b) 214344 |
| :--- | :--- |
| c) 214434 | d) 231444 |

32. What decimal of an hour is a second?
a) .0025
b) .0256
c) .00027
d) .000126
33. A batsman scored 110 runs which included 3 boundaries and 8 sixes. Identify the percent of his total score did he make by running between the wickets?
a) $45 \%$
b) $45(5 / 11) \%$
c) $54(6 / 11) \%$
d) $55 \%$
34. Two students appeared at an examination. One of them secured 9 marks more than the other and his marks was $56 \%$ of the sum of their marks. The marks obtained by them are:
a) 39,30
b) 41,32
c) 42,33
d) 43,34
35. A fruit seller had some apples. He sells $40 \%$ apples and still has 420 apples. Originally, he had:

| a) 588 apples | b) 600 apples |
| :--- | :--- |
| c) 672 apples | d) 700 apples |

36. What percentage of numbers from 1 to 70 have 1 or 9 in the unit's digit?
a) 1
b) 14
c) 20
d) 21
37. If $\mathrm{A}=x \%$ of $y$ and $\mathrm{B}=y \%$ of $x$, then Infer which of the following is true?
a) A is smaller than B .
b) $A$ is greater than $B$
c) Relationship between A and B
d) None of these cannot be determined.
d)
38. Alfred buys an old scooter for Rs. 4700 and spends Rs. 800 on its repairs. If he sells the scooter for Rs. 5800, his gain percent is:
a) $4(4 / 7) \%$
b) $5(5 / 11) \%$
c) $10 \%$
d) $12 \%$
39. The cost price of 20 articles is the same as the selling price of $x$ articles. If the profit is $25 \%$, then Identify the value of $x$ is:
a) 15
b) 16
c) 18
d) 25
40. If selling price is doubled, the profit triples. Identify the profit percent.

| a) $66(2 / 3)$ | b) 100 |
| :--- | :--- |
| c) $105(1 / 3)$ | d) 120 |

## PART - B

| 1 | If $\mathrm{A}=x \%$ of $y$ and $\mathrm{B}=y \%$ of $x$, then Infer which of the following is true? |  |
| :---: | :---: | :---: |
|  | a) A is smaller than B . | b) A is greater than B |
|  | c) Relationship between A and B cannot be determined. | d) None of these |
| 2 | Alfred buys an old scooter for Rs. 4700 and spends Rs. 800 on its repairs. If he sells the scooter for Rs. 5800, his gain percent is: |  |

a) $4(4 / 7) \%$
b) $5(5 / 11) \%$

|  | c) $10 \%$ | d) $12 \%$ |
| :---: | :---: | :---: |
| 3 | A vendor bought toffees at 6 for a rupee. How many for a rupee must he sell to gain 20\%? |  |
|  | a) 3 | b) 4 |
|  | c) 5 | d) 6 |
| 4 | A sum of money at simple interest amounts to Rs. 815 in 3 years and to Rs. 854 in 4 years. The sum is: |  |
|  | a) Rs. 650 | b)Rs. 690 |
|  | c) Rs. 698 | d) Rs. 700 |
| 5 | Mr. Thomas invested an amount of Rs. 13,900 divided in two different schemes A and B at the simple interest rate of $14 \%$ p.a. and $11 \%$ p.a. respectively. If the total amount of simple interest earned in 2 years be Rs. 3508, what was the amount invested in Scheme B? |  |
|  | a) Rs. 6400 | b) Rs. 6500 |
|  | c) Rs. 7200 | d) Rs. 7500 |
| 6 | A sum fetched a total simple interest of Rs. 4016.25 at the rate of 9 p.c.p.a. in 5 years. What is the sum? |  |
|  | a) Rs. 4462.50 | b) Rs. 8032.50 |
|  | c) Rs. 8900 | d) Rs. 8925 |
| 7 | A and B together have Rs. 1210. If $\frac{4}{15}$ of A's amount is equal to $\frac{2}{5}$ of B's amount, Identify the amount does B have? |  |
|  | a) Rs. 460 | b) Rs. 484 |
|  | c) Rs. 550 | d) Rs. 664 |
| 8 | Two numbers are respectively $20 \%$ and $50 \%$ more than a third number. The ratio of the two numbers is: |  |
|  | a) $2: 5$ | b) $3: 5$ |
|  | c) $4: 5$ | d) 6:7 |
| 9 | A sum of money is to be distributed among $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}$ in the proportion of $5: 2: 4: 3$. If C gets Rs. 1000 more than D , what is B 's share? |  |
|  | a) Rs. 500 | b) Rs. 1500 |
|  | c) Rs. 2000 | d) Rs. 3000 |
| 10 | Seats for Mathematics, Physics and Biology in a school are in the ratio $5: 7: 8$. There is a proposal to increase these seats by $40 \%, 50 \%$ and $75 \%$ respectively. What will be the ratio of increased seats? |  |
|  | a) 2:3:4 | b) $6: 7: 8$ |
|  | c) $6: 8: 9$ | d) 7:8:9 |
| 11 | In a mixture 60 litres, the ratio of milk and water $2: 1$. If this ratio is to be $1: 2$, then identify the quantity of water to be further added is: |  |
|  | a) 20 litres | b) 30 litres |
|  | c) 40 litres | d) 60 litres |
| 12 | A milk vendor has 2 cans of milk. The first contains $25 \%$ water and the rest milk. The second contains $50 \%$ water. How much milk should he mix from each of the containers so |  |

as to get 12 litres of milk such that the ratio of water to milk is $3: 5$ ?
a) 81 min
b) 108 min
c) $\mathbf{1 4 4} \mathbf{~ m i n}$
d) 192 min

13 In what ratio must a grocer mix two varieties of pulses costing Rs. 15 and Rs. 20 per kg respectively so as to get a mixture worth Rs. 16.50 kg ?
a) $3: 7$
b) $5: 7$
c) $7: 3$
d) $7: 5$

14 The sum of ages of 5 children born at the intervals of 3 years each is 50 years. What is the age of the youngest child?

| a) 4 years | b) 8 years |
| :--- | :--- |
| c) 10 years | d) 15 years |

15 A father said to his son, "I was as old as you are at the present at the time of your birth". If the father's age is 38 years now, the son's age five years back was:
a) 14 years
b) 19 years
c) 33 years
d) 38 years

16 In a certain store, the profit is $320 \%$ of the cost. If the cost increases by $25 \%$ but the selling price remains constant, approximately what percentage of the selling price is the profit?
a) $30 \%$
b) $70 \%$
c) $100 \%$
d) $250 \%$
17 A vendor bought toffees at 6 for a rupee. How many for a rupee must he sell to gain $20 \%$ ?
a) 3
b) 4
c) 5
d) 6

18 A sum of money at simple interest amounts to Rs. 815 in 3 years and to Rs. 854 in 4 years. The sum is:

| a) Rs. 650 | b)Rs. 690 |
| :--- | :--- |
| c) Rs. 698 | d) Rs. 700 |

19 Mr. Thomas invested an amount of Rs. 13,900 divided in two different schemes A and B at the simple interest rate of $14 \%$ p.a. and $11 \%$ p.a. respectively. If the total amount of simple interest earned in 2 years be Rs. 3508, what was the amount invested in Scheme B?

| a) Rs. 6400 | b) Rs. 6500 |
| :--- | :--- |
| c) Rs. 7200 | d) Rs. 7500 |

20 A sum fetched a total simple interest of Rs. 4016.25 at the rate of 9 p.c.p.a. in 5 years. What is the sum?
a) Rs. 4462.50
b) Rs. 8032.50
c) Rs. 8900
d) Rs. 8925

21 How much time will it take for an amount of Rs. 450 to yield Rs. 81 as interest at $4.5 \%$ per annum of simple interest?
a) 3.5 years
b) 4 years
c) 4.5 years
d) 5 years

22 A bank offers 5\% compound interest calculated on half-yearly basis. A customer deposits Rs. 1600 each on $1^{\text {st }}$ January and $1^{\text {st }}$ July of a year. At the end of the year, the amount he would have gained by way of interest is:
a) Rs. 120
b) Rs. 121
c) Rs. 122
d) Rs. 123

23 A and B together have Rs. 1210. If $\frac{4}{15}$ of A's amount is equal to $\frac{2}{5}$ of B's amount, Identify the amount does B have?
a) Rs. 460
b) Rs. 484
c) Rs. 550
d) Rs. 664

24 Two numbers are respectively $20 \%$ and $50 \%$ more than a third number. The ratio of the two numbers is:

| a) $2: 5$ | b) $3: 5$ |
| :--- | :--- |
| c) $4: 5$ | d) $6: 7$ |

25 A sum of money is to be distributed among $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}$ in the proportion of $5: 2: 4: 3$. If C gets Rs. 1000 more than D , what is B's share?
a) Rs. 500
b) Rs. 1500
c) Rs. 2000
d) Rs. 3000

26 Seats for Mathematics, Physics and Biology in a school are in the ratio $5: 7: 8$. There is a proposal to increase these seats by $40 \%, 50 \%$ and $75 \%$ respectively. What will be the ratio of increased seats?
a) $2: 3: 4$
b) $6: 7: 8$
c) $6: 8: 9$
d) $7: 8: 9$

27 In a mixture 60 litres, the ratio of milk and water $2: 1$. If this ratio is to be $1: 2$, then identify the quantity of water to be further added is:
a) 20 litres
b) 30 litres
c) 40 litres
d) 60 litres

28 A vessel is filled with liquid, 3 parts of which are water and 5 parts syrup. How much of the mixture must be drawn off and replaced with water so that the mixture may be half water and half syrup?
a) $1 / 3$
b) $1 / 4$
c) $1 / 5$
d) $1 / 7$

29 Tea worth Rs. 126 per kg and Rs. 135 per kg are mixed with a third variety in the ratio $1: 1$ $: 2$. If the mixture is worth Rs. 153 per kg , the price of the third variety per kg will be:
a) Rs. 169.50
b) Rs. 170
c) Rs. 175.50
d) Rs. 180
$30 \quad \mathrm{~A}$ can contains a mixture of two liquids A and B is the ratio $7: 5$. When 9 litres of mixture are drawn off and the can is filled with B , the ratio of A and B becomes 7: 9. How many litres of liquid A was contained by the can initially?

| a) 10 | b) 20 |
| :--- | :--- |
| c) 21 | d) 25 |

