K22U 2572

Reg. No. : ....

Name : ....

V Semester B.A./B.Sc./B.Com./B.T.T.M./B.B.A./B.B.A.-T.T.M./B.B.A.-
A.H./B.C.A./B.A. Afsal-Ul-Ulama/B.S.W. Degree (CBCSS – OBE – Regular/
Supplementary/Improvement) Examination, November 2022
(2019 Admission Onwards)
Open Course
5D02 MAT : QUANTITATIVE ARITHMETIC AND REASONING

Time : 2 Hours

Max. Marks : 20

PART – A

Answer **any 4** questions. They carry **1** mark **each**.

1. Find the average of all prime numbers between 30 and 50.

2. The selling price of 30 items is equal to the purchase price of 25 items. What is the profit or loss percent ?

3. If $17 : x = 17.5 : 22.5$, then find the value of x.

4. A can complete a piece of work of ₹300 in 6 day; but by engaging an assistant, the work is completed in 4 days. Find the share to be received by the assistant.

5. The speed of the boat then travelling downstream is 32 km/hr where as when travelling upstream it is 28 km/hr, what is the speed of the boat in still water and the speed of the stream ?

PART – B

Answer **any 6** questions from among the questions **6** to **15**. These questions carry **2** marks **each**.

6. Of the three numbers, second is twice the first and is also thrice the third. If the average of three numbers is 44, what is the largest number ?

7. The product of the ages of Ankit and Nikita is 240. If twice the age of Nikita is more than Ankit's age by 4 years, then find Nikita's age ?

P.T.O.

8. An article is sold at a certain price. By selling it at $\frac{2}{3}$ of that price one losses 10%. Find the gain percent at original price.

9. Find two numbers such that their mean proportional is 6 and third proportional is 20.25.

10. If 20 men can build a wall 56 meters long in 6 days, what length of a similar wall can be built by 35 men in 3 days ?

11. 3 men and 4 women can earn ₹3780 in 7 days. 11 men and 13 women can earn in ₹15040 in 8 days. In what time will 7 men and 9 women earn ₹12400 ?

12. A car starts running with the initial speed of 40 kmph with its speed increasing every hour by 5 kmph. How many hours will it take to cover a distance of 385 km ?

13. A boatman rows to a place 45km distant and back in 20 hours. He finds that he can row 12 km with the stream in the same time as 4 km against the stream. Find the speed of the stream.

14. What was the day of the week on 4th june, 2002 ?

15. Find the angle between the hour hand and the minute hand of a clock when the time is 3.25.

PART – C

Answer **any 1** question from among the questions **16** to **17**. These questions carry **4 marks each**.

16. There are 4 consecutive odd numbers (x_1, x_2, x_3 and x_4) and three consecutive even numbers (y_1, y_2 and y_3). The average of the odd numbers is 6 less than the average of the even numbers. If the sum of three even numbers is 16 less than the sum of the four odd numbers, what is the average of (x_1, x_2, x_3 and x_4) ?

17. Train A passes a lamp post in 9 seconds and 700 meter long platform in 30 seconds. How much time will the same train take to cross the platform which is 800 meters long ?

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