BSCMTO 283

Choice Based Credit System IV Semester B.Sc. Examination, September 2022
(2020 – 21 Batch Onwards)
MATHEMATICS (Open Elective)
Applications of Basic Arithmetics

Time : 2 Hours   Max. Marks : 40

Instructions : 1) *Answer **any five** questions from Part **A(I)**. **Each** question carries **2** marks.*
2) *Answers to Part **A** should be written in the **first few** pages of the answer book before answers to Part **B**.*
3) *Answer **three full** questions from Part **B(II)** and **three full** questions from Part **B(III)**.*
4) *Calculators are **allowed**.*

PART – A

I. Answer **any five** questions :   **(5×2=10)**

1) Find the greatest number of five digits which is exactly divisible by 47.

2) The product of two numbers is 0.008 and one is 1/5 of the other find the numbers.

3) A boy was asked to multiply a certain number by 53. He multiplied it by 35 and got his answer less than the correct one by 1206. Find the number to be multiplied.

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

5) Find the average of first 40 natural numbers.

6) A train travels 82.6 km/hr. How many meters will it travel in 15 minutes ?

7) The speed of a boat when travelling downstream is 32 km/hr whereas when travelling upstream it is 28 km/hr, what is the speed of the boat in still water and the speed of the stream ?

8) A 160 m long train crosses a 160 m long platform in 16 seconds. Find the speed of the train.

PART – B

Unit – I

II. Answer **any three** questions :   **(3×5=15)**

1) The total monthly salary of 4 men and 2 women is 46,000. If a woman earns ₹ 500 more than a man, what is the monthly salary of a woman ?

2) In a class there are 50 students their average weight is 45 kg, when a student leaves the class, the average is reduced by 100 g. Find the weight of the student who left the class.

3) The sum of seven consecutive natural numbers is 1617. How many of these numbers are prime ?

4) The age of father 10 years ago was thrice the age of his son. 10 years hence fathers age will be twice that of his son. Find the ratio of their present ages.

5) The product of two numbers is 192 and the sum of these two numbers is 28. Find the numbers.

Unit – II

III. Answer **any three** questions :   **(3×5=15)**

6) In what time will a train 100 meters long cross an electric poll if its speed is 144 km/hour ?

7) A man takes 6 hours 30 minutes in going by a cycle and coming back by scooter. He would have lost 2 hours 10 minutes by going on cycle both ways. How long would it take him to go by scooter both ways ?

8) A man can row 7½ km/hr in still water. If in a river running at 1.5 km/hr, it takes him 50 minutes to row to a place and back. How far off the place ?

9) What was the day of the week on 16th July 1776 ?

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

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