INDIAN SCHOOL MUSCAT
FIRST PERIODIC TEST
APPLIED MATHEMATICS

CLASS: XI

13.09.2022

Sub. Code: 241

Time Allotted: 50mts.

Max .Marks: 20

GENERAL INSTRUCTIONS:
- This question paper has three sections.
- Section A contains 5 questions of 1 mark each.
- Section B contains 3 questions of 2 marks each.
- Section C contains 3 questions of 3 marks each.
- All questions are compulsory.

SECTION A

1. $(16)^{\frac{3}{4}} + 2\left(\frac{1}{2}\right)^{-1} \times 3^0 =$ _____   1

2. The average of 4 numbers is 28. If one number is included their average becomes 30. The included number is _____.   1

3. A man covers a distance of 450 km in 5 hours. The speed in m/s is _____.   1

4. Volume and surface area of a sphere are numerically equal then the radius of the sphere is _____.   1

5. If log 4 = 0.6021, then the value of log 400 is _____.   1

SECTION B

6. If A can complete a job in 20 days and B can do the same job in 15 days, in how many can days they complete the job if they work together?   2

7. Convert the decimal number 45 into a binary number.   2

8. At what time between 3 O'clock and 4 O'clock will the hands of a clock coincide?   2

SECTION C

9. What was the day of the week on 28th May 2006?   3

10. Riya is known for her good photography skill and has won many prizes. On the   3
occasion of family function five cousins approach her for clicking their photograph.
Riya had them all sit on a bench. Siya is seated left to Rani and right of Bubbly.
Maria is seated to the right of Rani. Reet is between Rani and Maria.
(i) Who is seated in the middle?
(ii) Who is seated immediate right of Reet?

11. Using the concept of logarithms find the value of x correct to 3 decimal places.   3
$x = (1.05)^5$

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SECTION A

1. If a cone, hemisphere and cylinder have equal bases and same height then the ratio of their volumes is _____.   1

2. The average of 6 numbers is 17.5. If five of these numbers are 14, 9, 23, 25 and 10 then the sixth number is _____.   1

3. If log 3 = 0.4771, then the value of log 0.3 is _____.   1

4. A man covers 14 km in 3 hours 30 minutes.
   The speed in m/sec is _____.   1

5. Evaluate $x^{\frac{1}{2}}.y^{-1}.z^{\frac{2}{3}}$, if x = 9 , y = 2 and z = 8.   1

SECTION B

6. Find the angle between the two hands of a clock at 10:10 am.   2

7. If A can complete a job in 15 days and B can do the same job in 10 days, in how many days can they complete the job if they work together?   2

8. Convert the binary number 1011011 into a decimal number.   2

SECTION C

9. What was the day of the week on 17th July 2003?   3

10. Using the concept of logarithms find the value of x correct to 3 decimal places.   3

   $x = (1.04)^8$

11. Five people are sitting in a row. Deepak is sitting next to Arun but not Vinod. Rajiv   3
   is sitting next to Karan who is sitting on extreme left and Vinod is not sitting next to
   Rajiv. Based on the above information answer the following questions.
    (i) Who are the adjacent neighbours of Deepak?
   (ii) How many children are sitting to the left of Arun?