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S.Y.B.Sc. (Sem.-IV) Examination April - 2026

Quantitative Aptitude & Data Interpretation (Mathematics-MH-SEC-402)

[Total Marks: 25

સૂચના : / Instructions

(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book

(2) All questions are compulsory.

(3) Figures to the right indicate marks of the corresponding question.

(4) Follow usual notations and conversations.

Seat No.:

Student's Signature

Q.1. Answer the following. (Any five) **05**

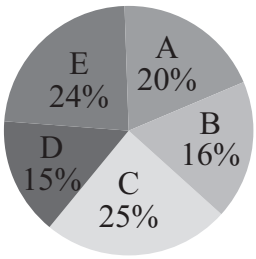
1. Define Selling Price
2. State the divisibility test for Divisibility test by 2.
3. A cyclist covers a distance of 900 m in 2 min 30 sec. What is the speed in km/hr. of the cyclist?
4. If $m = -4$ and $n = -2$, then find the value of $m^3 - 3m^2 + 3m + 3n + 3n^2 + n^3$.
5. Define Geometric Mean.
6. Simplify : $\left(\frac{x^a}{x^b}\right)^{(a+b)} \cdot \left(\frac{x^b}{x^c}\right)^{(b+c)} \cdot \left(\frac{x^c}{x^a}\right)^{(c+a)}$

Q.2. Answer the following. (Any Two) **10**

1. Find the square root of 497025 by step division method.
2. If $t = 2 + \sqrt[3]{4} + \sqrt[3]{2}$ then find the value of $t^3 - 6t^2 + 6t - 2$.
3. Find the simple interest on Rs. 3000 at $6\frac{1}{4}$ % per annum for the period from 4th Feb, 2009 to 18th April, 2009.

Q.3. Answer the following. (Any Two) **10**

1. A and B can do a piece of work in 45 and 40 days respectively. They began the work together but A leaves after some days and B finished the remaining work in 23 days. After how many days did A leave?
2. The pie chart depicts the percentage of first class tickets that were booked for five trains A, B, C,D and E on Monday. The total number of first class tickets booked for these five trains together was 500.



l. The number of tickets booked for all five trains together on Tuesday increased by 24% as compared to the previous day. What was the number of tickets booked for all five trains together on Tuesday?

2. The number of tickets booked by male customers for train A is 24 less than that booked for train C. If the total number of tickets booked by female customers for trains A and C together was 57, what was the number of tickets booked by male customers for train C?
3. Out of total number of tickets booked for train D, 40% was booked by female customers. What is the number of tickets booked for train D by male customers?

3. Find Mean and Median for the following Data:

Class	0-10	10-20	20-30	30-40	40-50	50-60	60-70
f_i	2	3	11	15	17	9	3