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EXAMINATION: DECEMBER - 2023
SEMESTER – III

Sub.: Business Mathematics (BBA22-311)

Date : 12/12/2023   **Total Marks : 60**   **Time: 10.00 am To 12.30 pm**

Instructions: 1) All questions are compulsory.
2) Figures to the right indicate full marks.

Q. 1.   Choose the most appropriate option.   **(05)**

1. If Sales = Rs. 3200,000 & Profit = Rs 8,00,000 then
   Profit : Sales = ……………

   a) 1 : 4   b) 1 : 5

   c) 2 : 4   d) 3 : 6

2. 6% of 60,000 = ……….

   a) 3,600   b) 360

   c) 6,300   d) 3060

3. C.P. = Rs. 12,000 sold after 3 years for Rs. 10,400 then % loss = …….

   a) 13.33 %   b) 1333 %

   c) 1.333 %   d) 133.3 %

4. EMI =………..for 1 year ,cost of two wheeler Rs.44,000 & rate of interest is 22.7 .

   a) Rs.4500   b) Rs.450

   c) Rs.45000   d) Rs.4505

5. Mr. Joshi loan Rs.15000 with 12% p.a. interest then his Bill amount = ……
   Bill Amount = Principal + Interest on the amount = Rs. 15,000

   a) 1800   b) 1080

   c) 1008   d) 8010

Q. 2.   State True / False   **(05)**

1. The product would continue to be profitable if the appropriate selling price was charged.

   a) True   b) False

2. Net profit compared with sales is called percent net margin.

   a) True   b) False

3. Calculating discounts, ratio and proportion are usually used.

   a) True   b) False

4. $C.I. = P \left(1+\dfrac{r}{n}\right)^{nt} - p$

   a) True   b) False

5. The amount of payment made is called as periodic payment.

   a) True   b) False

Q. 3.   **Solve (Any Three)**   **(15)**

1. In the ratio 3:5:2, find three positive numbers such that the sum of their squares is 2432.

2. Fill the blanks in the given table –

Capital at the beginning of the period (in Rs.)			Profit(Rs.)	A's share	B's share	C's share
A	B	C				
2,500	5,000	7,500	9,000	…….	……..	…….
50,000	1,00,000	…..	6,300	……	…….	2,100

3. A company reduced sales man salary Rs. 500 .His salary was Rs. 3000,but his Rate of commission increased from 2.5 % to 3 % .So his income is increased by Rs. 100 in this process. Calculate his commission in month.

4. Calculate Amount & S.I. for Rs. 12500 for 3.5 years with 12.5%

5. Calculate compound interest at a rate of 6% per year on the total amount of Rs 50,000 over a period of three years. Find the sum at the conclusion of the time as well.

Q. 4.   **Answer in detail (Any Two)**   **(20)**

1.
   The price of one bottle is Rs. 160 increased by 12% . As result used decreased by 10% .Find the increase or decrease in original income.

2. Mr. Harish purchased Rs. 4, 50,000 for a wardrobe, which he later sold   for Rs. 4,36,000 instead. Find his gain or loss in percentage.

3. Mr. Anil called for the increase of Rate of commission to his company. So company increased the commission rate from 5% to 8% , but still the income remain the same . Find the percentage change in Mr. Anil's sales .

Q. 5.   **Case study**   **(15)**

Mr. Anil ,Mr. Dinesh & Mr. Rajesh form a partnership by contributing Rs. 3,00,000 ,Rs. 2,00,000 and Rs. 3,00,000 respectively .After 4 months Anil invested additional Rs. 1,00,000 and Rajesh invested additional Rs. 2,60,000 ,2 months thereafter . At the end of the year net profit was Rs. 87,000. What amount should each partner receive?

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