

TILAK MAHARASHTRA VIDYAPEETH, PUNE
BACHELOR OF BUSINESS ADMINISTRATION (B.B.A.)

EXAMINATION: DECEMBER- 2024

SEMESTER - III

Sub.: Business Mathematics (BBA23-312)

Date : 19/12/2024

Total Marks : 60

Time: 2.00 pm to 4.30pm

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

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

1. Annual P&L Statement is record in company .
 - a) Profit and Loss
 - b) Profit and Legacy
 - c) Price and Loss
 - d) Permanent cost and Low cost
2. The sum of all periodic payments along with the interest is called
 - a) Accumulated amount
 - b) Annuity
 - c) True value
 - d) periodic payments
3. An agent made Rs. 7000 by charging a 10% commission on sales then sales value.....
 - a) 7000
 - b) 700
 - c) 70000
 - d) 70
4. How many days would it take 20 men to finish the same work that 35 men could finish in 8 days?
 - a) Direct proportion
 - b) Inverse proportion
 - c) Mixed proportion
 - d) Indirect proportion
5. The duplicate ratio of 3 : 2 is
 - a) 16 : 9
 - b) 3 : 4
 - c) 9 : 16
 - d) 4 : 9

Q. 2. State True / False (05)

- The expenses for tax, depreciation, and discount must also be subtracted.
a) True b) False
- A percentage is numerical number or a ratio that can be defined as a fraction of 100.
a) True b) False
- Net profit compared with sales is called percent net margin.
a) True b) False
- Virtual brokers are a fresh approach to digital investing that engages clients online.
a) True b) False
- This is calculated by dividing the average value of the products kept in inventory (at cost) by the value of the goods sold.
a) True b) False

Q. 3. Write Short notes on (Any Three)**(15)**

1. Commission in Business
2. Brokerage in Business
3. P&L statement in business
4. Simple and Compound Interest
5. Simple Annuity

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

1. Anil , Danni , and Seeta each contributed Rs. 70,000, Rs. 50,000, and Rs. 80,000 to a firm, respectively. Seeta received Rs. 16,000 as his share of the profit at the end of the year. Find the profit share between Anil and Danni.
2. On February 20, 2019, Mr.Akash borrowed Rs. 1, 20,000 from Mr. Rohan at 10% interest. The principle and interest are due on May 21, 2019. Determine the interest and total sum that Mr. Akash has paid.
3. Dr. Ketaki wants to invest some amount for 4 years in a bank. Bank MGM offers 8.5 % interest if compounded half yearly while bank YCB offers 6.78 % interest if compounded monthly. Which bank should Dr. Ketaki select for better benefits?
4. With an investment of one lakh each, Mr Manish, Mr Gopal, and Mr Kumar launched a transportation company. After the company had been operating for five months, Mr. Manish quit, and Mr. Gopal left three months later. The company made a profit of 75,000 at the end of the year. Discover each partner's profit split.

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

Consider a company that has three branches, A ,B and C, operating in small, medium-sized and large towns. Suppose the branches have the following performances during a month: Estimate which department is running well.

	A (Rs.)	B(Rs.)	C(Rs.)
Sales	12500	46500	63200
Expenses	9550	38750	48850
Profit	2950	7750	14350

Questions :

1. Calculate Profit or loss for each department.
 2. Find which department have less lose.
 3. Estimate which department is running well.
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