

## MALINI KISHOR SANGHVI COLLEGE OF COMMERCE &amp; ECONOMICS

## SUBJECT: BUSINESS MATHEMATIS

CLASS: F.Y.B.F.M.

SEM-I

SEAT NO. 21/3/23

Name:



- Note:** (i) All Questions are compulsory with internal choice.  
(ii) Simple Calculator is allowed.  
(iii) Graph papers will be provided on request.

Q.1

[A] Fill in the blanks. (Any 8 out of 10)

[8]

- At the time of purchasing the shares, brokerage is .....to the M.P. to calculate the net P.P.  
(added, subtracted, multiplied)
- If the M.V. of a share is equal to its F.V. then the share is said to be.....  
(at a premium, at par, at a discount)
- The charge to an investor at the time of he redeems his units from fund is known as.....  
(Recovery charge, Redemption charge, Exit load)
- At the time of selling shares, brokerage is ..... to the M.P. to calculate the net S.P.  
(added, subtracted, multiplied)
- Purchase Price of NAV is obtained by adding ..... to the NAV.  
(entry load, exit load, dividend)
- Dividend paid for a share by the company is based on its-----.  
(F.V., M.V., share holders discretion)
- The simple interest on Rs. 6000 for 4 years @5% p.a. is.....  
(400,1200, 850)
- Rs. 8000 will amount to Rs.8840 at 3.5% p.a. simple interest in .....years.  
(2, 3, 4)
- The inverse ratio of a:b is.....  
(b:a, a/b :b/a, 1/a : 1/b)
- Three number a,b,c are said to be in continued proportion if.....  
(a/c=b/c, a/b :c/a, a/b=b/c)

[B] State True or False. (Any 7 out of 10)

[7]

- SIP means super investment plan.
- The value of a share printed on the certificate of the share is called its market value.
- The rate at which a share is traded in the market is called the face value of the share.
- A Mutual Fund is a pool of losses.
- Future value is also known as accumulated value.
- In EMI calculation, the rate of interest is compounded yearly.
- For Compound Interest, the formula for Amount (A) is  $A = P(1+n)^i$
- Profit is usually considered as a percentage on the cost price and loss is usually considered as a percentage on the list price.
- A person who brings together a prospective buyer and seller and negotiates a settlement for a remuneration is called as Auctioneer.
- The invoice price minus cash discount is Net selling price price.

Q:2 Solve the following: (ANY-ONE)

[15]

[A]

- Kartik promised to pay Ketan Rs.366025 after 4 years. If the rate of interest is 12% per annum, find its present worth.
- A man purchases a house and takes a mortgage on it for Rs. 10, 00,000 to be paid of in 2 years by EMI. If the interest rate is 8% p.a., find the sum of money that he pays as EMI when interest is charged as reducing balance method.

OR

- [B]
- A principal amount to Rs.9680 after 3 years and to Rs.10800, after 5 years. Find the principal and rate of simple interest.
  - How much money should a person invest at 7% p.a. compound interest so that he would get an annuity of Rs. 1,00,000 at the end of each year for the next four years after which his principal money will be over?

Q:3 Solve the following: (ANYONE)

[15]

- [A]
- Ramu Industries has issued 60,000 shares of par values Rs.10 each. The company declared a total dividend of Rs.72000. Find the rate of dividend paid by the company.
  - Mr.IJK invested Rs. 94070 in a mutual fund. When NAV was Rs. 460 with the entry load of 2.25%. He received a dividend at Rs. 5 per unit. He later sold all the units of the fund when NAV was Rs. 476 with exit load of 0.5%. What is the percentage gain?

OR

- [B]
- Mr. XYZ invested in a stock having face value Rs.100. He received net dividend of Rs. 54 at the rate 4.5%. His total investment in the shares is Rs. 1284. The rate of brokerage is 1%. Find the market value of the shares?
  - If NAV was Rs. 72/- at the end of the year, with 12.5 % increase during the year, find NAV at the beginning of the year.

Q:4 Solve the following: (ANY-ONE)

[15]

- [A]
- A, B and C started business with total capital of Rs.1,00,000. At the end of the year, the profits received by A, B and C were Rs.2,000, Rs.3,000 & Rs.5,000 respectively. Find the amount of capital invested by B.
  - By selling an article at Rs.3,000, a person earned 20% profit. What would have been the percentage profit or loss, if he had sold it at Rs.2,750?

OR

- [B]
- The marks of Babita and Bharat are in the ratio 7:3. The difference between their marks is 56. What are their marks?
  - If A takes 5 days to complete a task when he works for 8 hrs a day, how many days he will take to complete the task if he works 5 hrs a day?

Q:5 Solve the following: (ANY-ONE)

[15]

- [A]
- A cupboard was sold for RS.7906 at 18% profit. What was the cost price?
  - A salesperson is allowed 9% commission on total sales plus a bonus at 1.5% on the sales exceeding Rs.20,000. If he earned Rs.4,104 on commission alone, find his total earnings.

OR

[B] Write short notes. (ANY THREE)

- Time value of money
- Simple interest and compound interest
- Entry load and exit load
- Types of share
- Annuity