

MALINI KISHOR SANGHVI COLLEGE OF COMMERCE & ECONOMICS		
SUBJECT: BUSINESS MATHEMATIS		14/11/22
CLASS: F.Y.B.F.M.	SEM-I	SEAT NO.
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]

- i. Brokerage paid for a transaction of shares is based on its
(F.V., M.V., share holders discretion)
- ii. is always declared on the F.V. of a share irrespective of its M.V.
(brokerage, dividend, bonus share)
- iii. NAV means.....
(net assets / no. of units outstanding, F.V. / No. of units, M.V. / No. of units)
- iv. The compound interest on Rs. 2000 for 2 years at the rate of 6% p.a. compounded semi-annually is Rs.....
(251.02, 255.07, 254.03)
- v. If m = number of times the interest is compounded per year. If $m=4$, the interest is compounded.....
(semi-annually, quarterly, monthly)
- vi. A sequence of payment made at successive time period or interval of time is known as.....
(Annuity, Simple Interest, Future Value)
- vii. Four number a, b, c, d are said to be in continued proportion if.....
($a/c=b/d$, $a/b=c/d$, $a/d=b/c$)
- viii. SIP means -----
(super investment plan, systematic investment plan, systematic investment platform)
- ix. IPO means -----
(Initial public offer, Initial payment offer, Investment price offer)
- x. Sales Price of NAV is obtained by subtracting to the NAV.
(entry load, exit load, dividend)

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

[7]

- i. NAV is calculated as difference between total assets and liabilities of the scheme.
- ii. The charge to an investor at the time of the redeems his units from fund is known as Recovery charge
- iii. The rate at which a share is traded in the market is called the Face value of the share
- iv. If the F.V. of a share is Rs. 100 and it is traded at 14 % premium then its M.V. is Rs. 96.
- v. If the F.V. of a share is Rs. 100 and it is traded at 12 % discount then its M.V. is Rs. 112.
- vi. If there is no trade discount then list price is same Invoice price.
- vii. If there is no trade and cash discount both then the List price is same as N.S.P.
- viii. Cash discount is usually calculated as a percentage on the Net selling price.
- ix. For Compound Interest, the formula for Amount (A) is $A = P(1+i)^n$.
- x. Present value is also known as discounted value

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

[15]

[A]

- i. Mr. ABC estimates that after 3 years he would require Rs.50,00,000 for his new business. He wishes to put aside money now, invested in an instrument giving interest 7% p.a. compounded half-yearly to meet his requirement then. How much money should he invest presently?

- ii. Kartik purchased a TV set and paid Rs. 5,000 immediately, another Rs. 5000 after a year and Rs. 5000 after 2 years and thus became debt free. Find the price of TV set if compound interest charged was 3.5%.

OR

[B]

- i. The compound interest and the simple interest on a sum of money at a certain rate for 2 years is Rs. 3000 and Rs. 3090 respectively. Find sum and the rate.
- ii. A company decides to set aside a certain sum at the end of each year to create a sinking fund, which should amount to Rs. 5 lakhs in 4 years at 12% p.a. Find the amount to be kept aside each year.

Q:3 Solve the following: (ANYONE) [15]

[A]

- i. Find the market price of a share at the time of purchase, if an investment of Rs. 22110 in Rs. 10 shares gave a total dividend of Rs. 297 at 9% rate of dividend.
- ii. 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]

- i. What amount required to purchase Rs. 10 share with total face value 4000 at 40% premium, with the brokerage being 0.25%.
- ii. Mr. Deore invested Rs. 25,000/- to purchase 2,500 units of ICICI MF - B plan on 4th April 2007. He decided to sell the units on 14th Nov. 2007 at NAV of Rs. 16.4 /-. The exit load was 2.5%. Find his profit (Calculations are upto 2 decimal points)

Q:4 Solve the following: (ANY-ONE) [15]

[A]

- i. Divide a profit of Rs. 25,828 between 2 partners in the ratio 4:7.
- ii. 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]

- i. If 40% of a number is equal to $\frac{2}{3}$ rd of another number, what is the ratio of 1st number to the 2nd number?
- ii. 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]

- i. An agent charged 8% commission on sales and thus earned Rs. 3,708. Find the original selling price.
- ii. 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)

- i. Future value and present value of annuity
- ii. Time value of money
- iii. Shares and mutual fund
- iv. Sinking fund
- v. Market value and face value of a share