

Duration: 2½ hours

Max Marks: 75

- NOTE: 1. All questions are compulsory.  
2. Figures to the right indicate full marks.  
3. Use of non-programmable electronic calculator is allowed.

- Q.1 (a) Choose the correct alternative from the following (Any 8): [8]
- (i) A load is expressed as a percentage of  
(a) SIP (b) NFO (c) NAV (d) AMC
- (ii) An annuity in which the number of payments depends upon the happening of some event is  
(a) life annuity (b) contingent annuity (c) perpetual annuity (d) certain annuity.
- (iii) If the face value of a share is less than its market value, then the share is said to be  
(a) at a premium (b) at par (c) below par (d) None of these.
- (iv) If the nominal rate of interest is 9% per annum compounded quarterly, then the effective rate of interest per annum is \_\_\_\_\_ the nominal rate of interest  
(a) greater than (b) less than (c) the fourth root of (d) equal to.
- (v) The list price minus trade discount is called the -  
(a) cost price (b) reduced cost price (c) net selling price (d) invoice price.
- (vi) The difference between the market value and the net worth of a business is its  
(a) good will (b) profit (c) loss (d) None of these
- (vii) The sub triplicate ratio of 8 : 1 is  
(a) 1 : 2 (b) 2 : 1 (c) 1 : 1 (d) 512 : 1.
- (viii) The fourth proportional to 10, 15, 24 is  
(a) 126 (b) 612 (c) 621 (d) 216.
- (ix) Commission is usually calculated as a percentage of  
(a) cost price (b) list price (c) net selling price (d) invoice price.
- (x) The compound interest on Rs. 2,000 at 12% p.a. is maximum when the interest is compounded  
(a) monthly (b) quarterly (c) half yearly (d) data is not sufficient.
- Q.1 (b) Write True / False (Any 7): [7]
- (i) The brokerage for a buyer is to be added in the sales value while calculating total amount the buyer receives.
- (ii) Simple interest is calculated on the principal amount only.
- (iii) Profit = N. S. P. - C. P. when N. S. P. > C. P.
- (iv) A mutual fund can never make a loss.
- (v) Par value and nominal value of a share are same.

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- (vi) An annuity is an annual payment of a simple interest.
- (vii) The product of a ratio and its inverse is always one.
- (viii) If a share is available at a discount, then its face value is less than its market value.
- (ix)  $a^2 : b^2$  is the duplicate ratio of  $a : b$ .
- (x) 
$$\text{N.S.P.} = \frac{(100 - \text{Cash discount})}{100} \times \text{C.P.}$$

Q.2 Answer either questions (a)&(b) or (c)&(d) of the following :-

- (a) A manufacturer makes a profit of 20% on cost after allowing trade discount at a rate of 22%. If the cost of manufacturing increases by 20%, find the new rate of trade discount if the manufacturer earns profit at the same rate without changing the catalogue price. [8]
- (b) There are two numbers with ratio 16: 9 and 24 is a mean proportional between them. Find the numbers. [7]

(OR)

- (c) A company fixed the rate of commission to its sales man as follows: 4% on the first Rs. 8000, 6% on the next Rs. 6,000, 9% on the next Rs. 6,000 and 10% on the balance. The company had agreed to pay  $\frac{1}{4}\%$  bonus over total sales if the sales crossed Rs. 25,000. A sales man of the company secured sales worth Rs. 27,000. Calculate the total earnings of the sales man. [8]
- (d) 30 men working for 8 hours a day earn Rs. 6,400 in 20 days. How much 45 men will earn in 24 days if they work 10 hours a day? The men are paid on the basis number of hours put in. [7]

Q.3 Answer either questions (a)&(b) or (c)&(d) of the following :-

- (a) Ketan and Kevin borrowed Rs. 18,000 and Rs. 25,000 respectively, at the same rate of simple interest. Ketan repaid the loan with interest of Rs. 5,040, after 3.5 years. How much should Kevin pay after 4.5 years to pay off the loan, including simple interest? [8]
- (b) Vishal deposits Rs. 7000 at the end of every quarter, at 10% compound interest p.a. Find the amount of annuity he will receive after 2 years. [7]

(OR)

- (c) Sohail promised to pay Aamir Rs. 15,000 after 3 years with compound rate of interest 8% p.a. He also promised to pay Aakash Rs. 20,000 after 4 years with compound rate of interest 9% p.a. Find the present worth of these payments. Also find the total present worth of the money Sohail has to pay. [8]
- (d) Sumedh takes a loan of Rs. 1,50,000 from a bank for a period of 15 months at 12% p.a. compound interest. Compute the EMI on monthly reducing balance. [7]

Q.4 Answer either questions (a)&(b) or (c)&(d) of the following :-

(a) Chaitali got 320 shares of a company of a face value Rs. 10, at a market price of Rs. 120 each. After 3 months, she received dividend at 40%. After 6 months, she sold all the shares at a market price of Rs. 160 each. She paid brokerage of 0.4% for both transactions. Find her net gain. [8]

(b) Given the following information of a mutual fund: [7]  
Total number of units = 1,20,000  
Market value of securities = 25 lakhs  
Market value of corporate bonds = 30 lakhs  
Other assets of fund = 20 lakhs  
Liabilities = 6 lakhs  
Payable by fund = 4 lakhs  
Find NAV of the mutual fund.

(OR)

(c) Varun invested Rs. 20,000 in a Mutual Fund on 8-2-2011 when its NAV was 25.8. He received a dividend @ 5 per unit on 21-7-2011. He redeemed all units on 15-11-2011 with total gain of Rs. 6,682.588. Find NAV at which he redeemed all units if entry load was 2.25% and exit load was 1%. [8]

(d) Fred purchased 600 shares of face value Rs. 10 each. The rate of brokerage was 0.8% and the total sum he paid was Rs 1, 45,152. Find the market price per share. [7]

Q5 (a) Explain the term variation and its types. [8]

(b) Explain the concept of NAV of a mutual fund. [7]

(OR)

Q5 Write any three short notes.

(c) Dividend and rate of return [5]

(d) Annuity and its types [5]

(e) Bonus shares and split of shares [5]

(f) Ratio and proportion [5]

(g) Cash discount and Trade discount [5]

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