

Duration: 3 hours

Total Marks: 80

- N. B. (i) Question number **one is compulsory.**
(ii) Answer any **Three** questions from the rest.
(iii) Assume suitable data wherever necessary.

Q.1 Solve the following (**any four**):

[20]

- Explain the basic principle of Economy.
- Differentiate between Scrap value and salvage value.
- Write any four factors that affecting investment & production cost.
- What is Net present value? Explain with suitable example.
- Describe the general outlines of accounting procedure.

Q.2 a) A bond has a maturity value of \$1000 & is paying discrete compound interest at an effective annual rate of 3%. Determine the following at a time four years before the bond maturity value.

b) Present worth b) Discount c) Discrete compound rate of effective interest which will be received by the purchaser, if the bond were obtained at \$700 d) What will be the present worth if the nominal bond interest is 3% compounded continuously [10]

b) A new piece of completely installed equipment costs \$ 12000 & will have a scrap value of \$ 2000 at the end of its useful life. If the useful life period is 10 years & the interest is compounded at 6% per year. What is the capitalized cost of the equipment? [10]

Q.3 A material testing machine was purchased for Rs. 200000 & was to be used for 5 years with an expected residual salvage value of Rs. 5000. Calculate the depreciation & year-end book values by using: [20]

- Straight Line Method
- Declining Balance Method
- Sum Of The Year Digit Method
- Sinking Fund Method

- 4 a) A bond has maturity value of Rs 1, 00,000/- & is paying discrete compound interest at an effective annual rate of 12 %. Determine the following at a time four years before the bond maturity value. (1) Present worth (2) Discount (3) Discrete compound rate of effective interest which will be received by the purchaser, if the bond were obtained at Rs 70000/- (4) What will be the present worth if the nominal bond interest is 12% compounded continuously. [10]
- b) Explain Break-even analysis with graph. Derive relation for Break Even Point (BEP). [10]
5. a) A company offering an easy installment option while selling a equipment worth Rs. 3,00,000/- at a time of purchase Rs. 60000/- in cash & the remaining amount in 30 equal monthly installments, of Rs. 10000/-each. A bank also willing to pay 75% of the equipment cost & recovers it in 30 equal installments of Rs.8500/-each. Which potion is better? Why? [10]
- b) Explain cash flow in chemical industries with suitable diagram. [10]
6. Write a short note on [20]
- 1) Rate of return. ii) Profitability iii) Self Insurance. iv) Annuity