22662

12425

03 Hours / 70 Marks Seat No. | | | | | | | | |

Instructions – (1) All Questions are *Compulsory.*

(2) Answer each next main Question on a new page.

(3) Use of Non-programmable Electronic Pocket Calculator is permissible.

(4) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following: **10**

a) Define Prime Cost.

b) State elements of costs.

c) Enlist various costing methods.

d) State any four applications of break even analysis.

e) State any four methods of calculating depreciation.

f) State the formula to Calculate Maching time in turning operation on Lathe.

g) State the meaning of N.P.V.

Marks

2. Attempt any THREE of the following: **12**

a) Define costing and state its aims.

b) Differentiate between Estimating and Costing.

c) Define standard cost and state its advantages.

d) Differentiate between fixed cost and variable cost.

e) A lathe is purchased for Rs. 10,000/- and the assumed life is 10 years and scrap value Rs. 3000/-. If the depreciation is charged by Diminishing balance method. Calculate the percentage by which value of the lathe is reducing every year and depreciation fund after 2 years.

3. Attempt any THREE of the following: **12**

a) Explain how standardization helps in:

i) Economy of design

ii) Increasing returns in a factory

b) Differentiate between value analysis and value engineering.

c) The casting of 100 mm × 200 mm × 150 mm with central through hole of 50 mm is to be made in steel using wooden pattern. Considering shrinkage into account, calculate pattern dimensions shrinkage allowance for steel is 20 mm/m.

d) State the procedure to calculate cost of welding.

4. Attempt any THREE of the following: **12**

a) Enlist the various major cost saving areas in a factory. Explain any one.

b) State the formula for MRR in electro chemical machining and also state meaning of each term in formula.

c) Find time required to drill 4 holes in cast iron Flange each of 2m depth, if the hole diameter is 2 cm. Assume cutting speed as 21.9 m/min and feed rate as 0.02 cm/rev.

d) State the reason for replacement and advantages of replacement analysis.

Marks

5. Attempt any TWO of the following: **12**

a) Explain the elements of cost.

b) Compute break even point, if fixed cost = Rs. 10,000 per year

Variable cost = Rs. 2 per unit

Selling price = Rs. 5 per unit

c) Two 50 cm long MS plates of 1 mm thickness are to be welded by a lap joint with the help of 6 mm electrode. Calculate the cost of welding if,

i) Current used = 250 AMP

ii) Voltage = 30V

iii) Welding Speed = 10 m/hr

iv) Electrode used = 0.4 kg/m of welding

v) Labour charges = Rs. 1 per hr

vi) Electric charges = Rs. 0.20 per kWh

vii) Cost of electrode = Rs. 45 per kg

viii) Efficiency of machine = 60%

6. Attempt any TWO of the following: **12**

a) Suggest relevant pricing method for manufacturing of Nut and Bolt on lathe maching with Justification.

b) Explain Discounted Cash Flow (DCF) method

c) Whether a machine having following particulars must be purchased or not

i) Cost of machine = Rs. 20,000/-

ii) Expected return in first year = Rs. 2,000/-

iii) Expected return in second year = Rs. 1,800/-

iv) Expected return in third year = Rs. 1,600/-

v) Salvage value at the end of third year = Rs. 1,000/-