

Reg. No. :

--	--	--	--	--	--	--	--	--	--

Question Paper Code: 49810

B.E. / B.Tech. DEGREE EXAMINATION, AUGUST 2021

Elective

Mechanical Engineering

14UME910- PROCESS PLANNING AND COST ESTIMATION

(Regulation 2014)

Duration: 1.45 hrs

Maximum: 50 Marks

PART A - (10 x 2 = 20 Marks)

(Answer any ten of the following questions)

1. What is meant by Work Study?
2. Define the term Ergonomics.
3. Calculate the net machine-hours available in a factory from the following data for month of June:
 - (1) Number of milling machines = 8
 - (2) Number of working days = 25
 - (3) Number of shifts per day = 2
 - (4) Time lost due to maintenance and repairs, etc. = 3 hrs. per day
 - (5) Number of hours/shift = 8
4. What are the benefits of CAPP?
5. State the objectives of cost estimation.
6. Differentiate Fixed Costs and Variable Costs.
7. What are the Elements of Cost?
8. State the different types of allowances.
9. State some examples for Direct Labour.
10. State the different methods of on-cost allocation.
11. Define Work Study?
12. Write the Techniques of Work Measurement.

13. What are the factors affect the Process Planning?
14. What are the benefits of CAPP?
15. Define Cost Estimation.

PART – B (3 x 10= 30 Marks)

(Answer any three of the following questions)

11. Define Ergonomics; Come out with its objectives and applications. (10)
12. Explain the two approaches commonly used in CAPP system bringing out their advantages and limitations (10)
13. List down step by step procedure for estimating the direct material cost. (10)
14. List the data requirements and sources of information for cost estimation. (10)
15. 150 components, as shown in Fig. 1 are to be made by upsetting a f 20 mm bar. (10)

Calculate the net weight, gross weight and length of f 20 mm bar required. The density of material may be taken as 7.86 gms/cc. (All dimensions are in mm)

