ADAMAS UNIVERSITY END (EVEN) SEMESTER EXAMINATION: MAY 2021 (Academic Session: 2020 – 21) Name of the Program: B. Tech VI **Semester: Paper Title: Industrial Engineering** EME43106 **Paper Code: Maximum Marks:** 40 Time duration: 03 HRS. **Total No of questions:** 08 **Total No of Pages:** 02

Answer all the Groups

Group A

(Answer all the questions)

 $1\times5=5$

1.

- a. Define Industrial engineering.
- b. What is critical activity?
- c. What do you mean by quality?
- d. What are the objectives of time study?
- e. What is the basic function facility planning?

Group B

(Answer any three questions)

 $5 \times 3 = 15$

- 2. Explain Product life cycle with typical curve and its stages.
- 3. (a) What is the objective of facility layout?
 - (b) An item can be purchased for Rs 200. The ordering cost is Rs. 300 and the inventory carrying cost is 10% of the item cost annum. If the annual demand is 3000 units, then calculate the economic order quantity (in units).
- 4. (a) What is value engineering? Discuss briefly.
 - (b) Standard time and labour rates are as in the table. Labour overheads are 20% of labour cost.

Activity	Standard Time(minutes)	Labour rate (Rs. /hr.)
Cutting	2	500
Drilling	1	300
Inspection	3	700
Packaging	0.5	200

If the material cost is Rs. 50/unit, what will be the total cost of production in Rs. /unit?

- 5. (a) Differentiate CPM and PERT.
 - (b) Differentiate Cyclograph & Chronocyclo-graph.

Group C

(Answer any two questions)

 $10 \times 2 = 20$

- 6. How will you select job for method study? Explain steps involved in conducting method study?
- 7. Explain various kinds of inventory control systems?
- 8. Explain the following in the context of a network: (i)Activities (ii) Event (iii) Path (iv) Dummy Activity (v) float