

Code: CE6T6FE-A, IT6T5FE-C, CS6T5FE-D

**III B.Tech-II Semester–Regular/Supplementary Examinations–March 2019**

**INDUSTRIAL ENGINEERING & ENTREPRENEURSHIP**  
**(Common for CIVIL, CSE & IT)**

**Tables/codes: Normal distribution tables should be supplied.**

Duration: 3 hours

Max. Marks: 70

**PART – A**

Answer *all* the questions. All questions carry equal marks

11x 2 = 22 M

1. a) Briefly describe the role of an Industrial Engineer in an organization?
- b) List the levels of management of an Engineering College.
- c) What does scalar chain mean?
- d) What is decentralization?
- e) What is authoritative leadership style?
- f) Define Statistical Quality Control?
- g) Differentiate variable charts and attribute charts.
- h) What is critical path?
- i) Write the two rules of drawing a network diagram.
- j) What is entrepreneurship?
- k) Give examples for small scale Industries?

## PART – B

Answer any *THREE* questions. All questions carry equal marks.

3 x 16 = 48 M

2. a) Explain the functions of management. 8 M

b) Enumerate the differences between policies, goals and objectives. 8 M

3. a) Compare the line organization with line and staff organization. 8 M

b) Write the advantages and limitations of leadership based on authority. 8 M

4. a) Construct X and R-charts from the following information and state whether the process is in control. For each of the following, X has been computed from a sample of 5 units drawn at an interval of 2 hours from an ongoing manufacturing process. (Take  $A_2=0.577$ ,  $D_3=0$  and  $D_4=2.114$ ) 8 M

Sample	1	2	3	4	5	6	7	8	9	10
Mean, X	23	37	34	13	29	26	39	45	34	20
Range, R	10	30	11	21	17	20	5	14	38	34

b) Discuss the concept of TQM. 8 M

5. A small scale industrial unit consists of 6 activities as given below. 16 M

- a) Draw the network diagram.
- b) Determine the critical path and duration of completion.
- c) Find Earliest Starting time, Earliest finishing time, Latest starting time, latest finishing time, and total float for each activity.

Activity	Time in days	Pre-operation
A	5	None
B	6	A
C	5	B
D	4	A
E	3	D
F	4	C,E

6. a) Imagine that you are about to start a firm at your place (or any place) after your graduation for any product or process (anything but specify clearly). Discuss the various aspects that you consider before starting the firm and steps you will take while starting the same. 8 M

b) Discuss about the financial and other assistance provided to small scale industries. 8 M