

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year II Semester Examinations, November/December - 2015

INDUSTRIAL MANAGEMENT

(Common to ME, MCT, AME, MIE, MIM)

Time: 3 hours

Max. Marks: 75

Answer any five questions
All questions carry equal marks

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- 1.a) "Management is the process by which managers create, maintain, and operate purposive organizations through coordinated and cooperative human efforts." Elaborate and explain this statement.
- b) Explain the concept 'Management' and bring out its importance in present day context.
- c) "Theory X and Theory Y are concerned with the nature of people". How does the job situation affect the application of this theory? What are its implications? [6+4+5]
- 2.a) What do you understand by "Organization theory"? What is its role in providing insights while designing organization structure?
- b) How does line and staff organization structure differ from pure line organization structure? What are the benefits and limitations of line and staff organization structure? [9+6]
- 3.a) Identify an appropriate layout for each of the following situations. Justify your choice in a sentence or two:
- A manufacturer of garments for Van Heusen.
 - A multi cuisine restaurant in a posh residential area in Mumbai.
 - The overhaul of helicopters.
 - A fabricator of custom made PCBs for a large number of electronic applications.
 - An eye hospital.
 - A motor manufacturer manufacturing 4 product groups for worldwide markets.
 - A manufacturer of large turbines for power sector applications.
- b) A manufacturer of hair oil has an automatic process consisting of a filling machine for filling the 200 ml bottles and sealing unit. After filling the bottle, it is automatically sealed with a metallic cap. To maintain the quality of the process, samples of size 5 are drawn periodically from the process and the quantity filled is measured. The table below has data on 12 such observations.

Sample	1	2	3	4	5
1	9.21	8.87	8.71	9.08	9.34
2	9.06	8.97	9.13	8.16	8.85
3	9.35	8.95	9.20	9.03	8.44
4	9.21	8.71	9.05	9.35	8.87
5	9.01	9.17	9.21	9.05	9.53
6	8.74	8.35	8.50	9.06	8.89
7	9.21	9.05	9.00	8.78	9.23
8	9.15	9.20	9.23	9.15	9.06
9	8.98	8.81	8.90	9.13	9.05
10	9.03	9.10	9.26	9.44	8.48
11	9.49	9.15	9.12	8.88	8.93
12	8.95	9.10	9.02	9.04	8.96

Construct a variable control chart and investigate the process is in control.

[7+8]

- 4.a) What are the objectives of materials management? How can materials managers take decisions while dealing with divergent trends between supplies of materials and their demand? [7+8]
- b) Explain the functions of marketing and marketing strategies based on product life cycle. [7+8]

- 5.a) Discuss any three types of incentives schemes used in manufacturing industry, commenting on their applications, advantages and disadvantages. [7+8]
- b) Define 'Man Power Planning' and explain its broad objectives. Discuss the methodology normally followed for estimating manpower requirements in a manufacturing organization. [7+8]

- 6.a) A project management firm is preparing a network for one of the projects that it has recently bid for. The client demands that the project needs to be completed and delivered at its site by week 25. The firm has identified the list of activities to be performed and estimated the duration of each of the activities. The details are given in the table below. Use this information to draw a network and help the firm answer the following questions.

Activity	Predecessor	Duration (weeks)
A		8
B	A	3
C	A	6
D	A	4
E	B	5
F	B	4
G	C,E	6
H	D	6
I	F	6
J	D	4
K	G,H,I	3
L	J,K	3

- i) Will the firm be able to meet with the customer's dead line of 25 weeks?
- ii) If the firm cannot, identify the set of activities that need to be considered for a possible reduction in duration.
- iii) If the cost of reduction is RS 10000 per week and the firm will have to pay a penalty of RS 7000 per week of delay in completion in addition to paying affixed amount of RS 20000, what will your recommendation be to the firm with respect to reducing the duration?
- b) Provide an example of precedence relationships from your personal life. [8+7]
- 7.a) Give an example of a recent political development that changed the overall strategy of an organization.
- b) Why do you think organizations that have a comprehensive mission tend to be high performers? Does having a comprehensive mission cause high performance?
- c) Compare and contrast financial objectives with strategic objectives. Which type is more important in your opinion? Why? [5+5+5]