Code No: 07A6HS02 | **R07** | **Set No. 2**

III B.Tech II Semester Examinations,APRIL 2011
INDUSTRIAL MANAGEMENT
Common to Mechanical Engineering, Production Engineering, Automobile Engineering

Time: 3 hours | **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks
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1. What is meant by the term management? Explain it's importance. [16]

2. Explain the following terms:

   (a) Carrying cost

   (b) Order cost

   (c) Shortage cost.

   (d) EOQ. [16]

3. (a) Explain the procedure involved in PERT analysis for a network to determine critical path and the probability of completing the project by due date.

   (b) Compare PERT and CPM. [8+8]

4. Define work sampling. Explain the procedure of work sampling for calculating standard time. [16]

5. (a) Explain Halsey plan of wage incentive scheme and what are the advantages and disadvantages of it.

   (b) Time allowed for a job is 18 hrs, actual time taken is 14hrs. What is his wage according to the Halsey plan if hourly wage rate is Rs 1.0. [8+8]

6. Explain various aspects of modern organization theory briefly. [16]

7. The following is the record of 4 measurements per sample of 15 samples:

Sample No	Observation	Sample No	Observation
1	31, 21, 32 , 7	9	11,22,29,30
2	43,35,53,49	10	35,31,34,27
3	24,16,52,62	11	33,17,34,29
4	20,35,34,23	12	29,34,54,50
5	28,31,28,30	13	20,31,33,36
6	29,35,23,19	14	29,32,33,28
7	33,32,29,33	15	15,23,14,13
8	12,20,19,17		

Determine the control limits for $\bar{X}$ and R charts and draw these charts. [16]
Determine the control limits for and R charts and draw these charts.

8. (a) List the general factors to be considered for plant location problem

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b) Select a major manufacturing facility in your Geographic area and identify the factors that make it a good or poor site in your opinion.

[8+8]

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FIRSTRANKER

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Code No: 07A6HS02 　　　　 **R07** 　　　　 **Set No. 4**

III B.Tech II Semester Examinations,APRIL 2011
INDUSTRIAL MANAGEMENT
Common to Mechanical Engineering, Production Engineering, Automobile
Engineering

Time: 3 hours 　　　　　　　　　　　　　　　　　　　　 Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

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1. Explain Fulkerson's rule for numbering the events by taking a example. [16]

2. What is meant by direction? Explain the principles of direction and control. [16]

3. Explain ranking method? What are the advantages and disadvantages. [16]

4. Explain the following in detail

    (a) Responsibility and authority

    (b) Span of control. [8+8]

5. Explain features of various types of Flow process charts with suitable examples.
   [16]

6. The Goliath Tool Company produces slip-ring bearings which look like flat washers.
   They fit around shafts or rods such as drive shafts in machinery or motors. In the
   production process for a particular slip-ring bearing the employees have taken 10
   samples of 5 slip-ring bearings. The individual observations from each sample are
   shown as follows:

Sample No	Observations(slip-ring diameter,cm)				
	1	2	3	4	5
1	5.02	5.01	4.94	4.99	4.96
2	5.01	5.03	5.07	4.95	4.96
3	4.99	5.00	4.93	4.92	4.99
4	5.03	4.91	5.01	4.98	4.89
5	4.95	4.92	5.03	5.05	5.01
6	4.97	5.06	5.06	4.96	5.03
7	5.05	5.01	5.10	4.96	4.99
8	5.09	5.10	5.00	4.99	5.08
9	5.14	5.10	4.99	5.08	5.09
10	5.01	4.98	5.08	5.07	4.99

   Construct $\bar{X}$ and R charts and indicate whether the process is under control or
   not. [16]

7. Explain the characteristics, advantages, disadvantages & suitability of cellular lay-
   out. [16]

8. Explain various aspects of stores management. [16]

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Code No: 07A6HS02   R07   Set No. 4

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FIRSTRANKER

Code No: 07A6HS02   **R07**   **Set No. 1**

III B.Tech II Semester Examinations,APRIL 2011
INDUSTRIAL MANAGEMENT
Common to Mechanical Engineering, Production Engineering, Automobile
Engineering

Time: 3 hours   Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks
⋆ ⋆ ⋆ ⋆ ⋆

1. Define Management. Explain its nature and significance.   [16]

2. (a) What is meant by plant layout problem?

   (b) Give the important objectives of a specific plant layout.   [8+8]

3. What is Human Resource Management? Compare it with Personal Management.
          [16]

4. (a) Explain the terminology of a typical acceptance sampling plans.

   (b) Explain the working of single sampling plan. Discuss its advantages and disadvantages.   [8+8]

5. (a) Explain various equipment and forms used in time study briefly

   (b) Define performance rating. Explain different methods of performance ratings briefly.   [8+8]

6. Time taken by different activities of P.E.R.T project is as given below:

Activity		Activities Times		
Tail Event (i)	Head event(j)	Optimistic time	Pessimistic time	Most likely time
1	2	1	3	2
2	3	1	7	4
2	7	2	4	3
3	4	1	5	3
3	5	0	0	0
4	6	0	0	0
5	6	3	13	5
7	8	4	12	8
6	9	4	14	6
8	9	1	2	2

   (a) Draw the network

   (b) Determine the expected time and variance for each activity.

   (c) Determine critical path.   [16]

7. (a) Explain the principles of sound organization briefly

   (b) Distinguish between lean and flat organization structures.   [8+8]

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8. Explain and compare fixed order quantity and fixed order period model and state their applications.   [16]

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FIRSTRANKER

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Code No: 07A6HS02 | **R07** | **Set No. 3**

III B.Tech II Semester Examinations,APRIL 2011
INDUSTRIAL MANAGEMENT
Common to Mechanical Engineering, Production Engineering, Automobile Engineering

Time: 3 hours   Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks
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1. (a) Define plant location.

   (b) Explain the reasons for plant re-location?   [8+8]

2. Define method study. What are its objectives?   [16]

3. (a) Explain methodology in CPM analysis for determining the critical path of a network.

   (b) What is meant by crashing of an activity?   [8+8]

4. How are wage incentive plans classified? Explain any two of time based plans. [16]

5. (a) Explain various steps involved in Always Better Control approach for classifying items.

   (b) Mention drawbacks of the above approach.   [8+8]

6. (a) What are the disadvantages of departmentation?

   (b) List out various methods of departmentation. Explain any one in detail. [8+8]

7. A number of samples are selected and their average values and ranges are tabulated below:

Sample No	Mean($\bar{X}$)	Range (R)
A	8.0	2.5
B	8.5	2.0
C	8.0	3.0
D	9.0	2.5
E	10.0	3.5
F	7.0	2.0
G	8.0	3.0
H	8.5	3.0
I	9.0	2.5
J	8.0	3.0

Draw the $\bar{X}$ chart and the R-chart. If the tolerance limit specified for mean dimension is given as ± 2.0, calculate the process capability figure C_p and process capability factor C_{pk}.   [16]

8. Discuss the contributions of Fayol to the theory of management. Explain why is he regarded as the father of modern management theory.   [16]

R07

Set No. 3

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