Code No: **R32036** **R10** **Set No. 1**

III B.Tech II Semester Supplementary Examinations, November - 2017

INDUSTRIAL ENGINEERING & MANAGEMENT

(Mechanical Engineering)

Time: 3 hours **Max. Marks: 75**

Answer any FIVE Questions

All Questions carry equal marks

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1	a)	Write the differences between production management and industrial engineering.	[8M]
	b)	State and describe the Fayol's principles of management.	[7M]
2	a)	List out and briefly explain quantitative techniques used for optimal design of layout.	[8M]
	b)	State the advantages and disadvantages of selecting the plant location in an urban and a rural site.	[7M]
3	a)	Define operations management. Explain the nature and scope of operations management.	[8M]
	b)	Explain the construction of a string diagram with neat sketch.	[7M]
4	a)	Describe the method of constructing X and R chart and explain how these charts help in determining lack of control.	[7M]
	b)	Define the concept of inspection and explain various types of inspections.	[8M]
5	a)	What is job evaluation? What objectives can be served from scientific job evaluation studies?	[7M]
	b)	Why an employee must be rated? State and explain different methods of employee rating.	[8M]
6	a)	Explain the applications of quality circles in management.	[7M]
	b)	Briefly explain the concept of six sigma.	[8M]
7	a)	Discuss the functions and significance of Enterprise Resource Planning.	[7M]
	b)	Explain the principles of supply chain management.	[8M]

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8 a) The following data gives the information about duration and cost of various activates in a project networks [8M]

Activity	Normal Duration (weeks)	Normal Cost (in Rs.)	Crash Duration (weeks)	Crash Cost (in Rs.)
1-2	4	4000	2	12000
2-3	5	3000	2	7500
2-4	7	3600	5	6000
3-4	4	5000	2	10000

The project overhead costs are Rs.2000 per week. Find the optimum duration and cost associated with it. Also, draw the least cost network.

b) Briefly explain project crashing with an example [7M]

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