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Printed Pages : 3 **MBA – 212**

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 7063 Roll No. | | | | | | | | | | |

M. B. A.

(SEM. II) EXAMINATION, 2006-07

PRODUCTION & OPERATIONS MANAGEMENT

Time : 3 Hours] *[Total Marks : 100*

Note : *Attempt **all** questions. All questions carry **equal** marks.*

1 Attempt any **four** parts of the following : **5×4**

(a) Explain the different stages in product life cycle and the accompanying characteristics important to manufacturing process technology.

(b) Bring out the stages in the development of a new product. Explain each stage in brief.

(c) What is "Operations Management"? What are different decisions taken by Operations Managers for production?

(d) Describe the various steps involved in process design. Mention the inputs outputs of process design.

(e) Trace the evolution of production function.

(f) "Automated production systems have greater Operating Leverage? Discuss this statement.

2 Attempt any **four** parts of the following : **5×4**

(a) Briefly describe the problems faced by a manager in managing a project.

(b) State and explain the various factors affecting job design.

(c) "Plant layout involves besides grouping of machinery an arrangement of other facilities also." Discuss.

(d) Enumerate and explain the major factors governing plant location.

(e) What is 'Line of balance'? Explain the LOB technique.

(f) There are 8 jobs A, B, C, D, E, F, G and H, which can be processed in any of the 3 machines, M_1, M_2 and M_3 in a job shop. The processing times are given in the table:

Job	*Processing Time (Hours)*
A	**12**
B	**20**
C	**5**
D	**15**
E	**4**
F	**8**
G	**6**
H	**4**

Assign the jobs using Longest Processing Time (LPT) rule.

3 Attempt any **two** parts of the following : **10×2**

(a) List the advantages and disadvantages of the following traditional aggregate plans

(i) Level capacity plan

(ii) Matching Capacity with Aggregate Demand.

(b) Explain how the PPC (Production Planning and Control) department works in a manufacturing organization and what are its functions?

(c) How does PPC function change in the three types of production? Explain with reference to differences in the three types of production.

4 Attempt any **two** parts of the following : **10×2**

(a) What is quality circle? How are quality circle formed? Discuss the formation and working of QC's in an engineering industry.

(b) Write a note on costs of quality and the approaches that may be taken, which will improve quality, but at a lower cost.

(c) 10 samples (each of size 100) of a component were inspected. The results of the inspection are given below :

Sample No. :	1	2	3	4	5	6	7	8	9	10
No. of Defections :	2	0		3	1	2	3	1	1	2

Draw the relevant control chart taking 3 sigma limits.

5 Attempt any **two** parts of the following : **10×2**

(a) Distinguish between 'Method Study' and 'Work Measurement'? What are the steps in performing stop watch time study?

(b) An 8 hours work measurement study in a plant reveals the following. Units produced = 320 Nos. Idle time = 15%. Performance rating = 120%. Allowance = 12% of Normal time. Determine the standard time per unit produced.

(c) Highlight the overall goals of TPM and its contribution to quality.
