

Code : 07MB204

M.B.A - II Semester Supplementary Examinations, January-2009  
PRODUCTION AND OPERATIONS MANAGEMENT  
(Common to R05 & R07)

Time: 3 hours

Max Marks: 60

Answer any FIVE Questions  
All Questions carry equal marks

\*\*\*\*\*

1. Production Management is non glamorous behind-the-screen job. Comment on the statement comparing Production and Operations Management with other functional areas of Management.
2. (a) What is value analysis? What is checklist approach to value analysis implantation?  
(b) How does CAD/ CAM enable flexible Manufacturing?
3. What is layout? What are the basic types of plant layout? What are their advantages and disadvantages?
4. Demand for a certain sub-assembly in a toy manufacturing facility is 96 times for 8 hr. shift. The following six tasks are required to produce one sub-assembly.

| Task | Time required(minutes) | Predecessor task(s) |
|------|------------------------|---------------------|
| a    | 4                      | -                   |
| b    | 5                      | a                   |
| c    | 3                      | a                   |
| d    | 2                      | b                   |
| e    | 1                      | b,c                 |
| f    | 5                      | d,e                 |

- (a) Determine the cycle time.  
(b) Draw the predecessor diagram.  
(c) Balance the line.  
(d) Compute the balance delay in percent.
5. (a) What are the steps to be followed in method study?  
(b) A group of 10 workmen working 8 hours per day (one shift) on a group of engine lathes produced 320 pieces of a component. During the study it was observed that workmen were idle for 20% of the total available time and 80% of the time they worked at an average performance of 75%. Calculate the standard time for the job assuming
  - i. The operation to be completely manual.
  - ii. The workmen are entitled to 20% allowance for this type of work.
6. (a) Define total productivity and partial productivity.  
(b) Explain the concept of productivity cycle.
7. (a) Distinguish between inspection by variable and inspection by attributes.  
(b) Eight pieces of cloth 2mx2m size produced out of synthetic fiber were closely studied for foreign threads (i.e. defectives). The results of the study are as shown:

| Serial No. of Cloth Piece | 1  | 2 | 3 | 4 | 5  | 6 | 7 | 8  |
|---------------------------|----|---|---|---|----|---|---|----|
| No. of foreign threads    | 12 | 6 | 8 | 4 | 10 | 8 | 9 | 15 |

Construct a suitable control chart for the above data and give your comments on the results.
8. (a) Define the terms Capacity. How is it measured? What factors affect determination of plant capacity?  
(b) What are the inputs to and output from aggregate planning?

\*\*\*\*\*