MBA(D) (2ⁿᵈ Semester) Examinations, June 2018 (CDOE)
[Session: (July 2016-June 2018), (July 2017-June 2019)]

Subject: Production and Operations Management
Paper: MBD-204

Time: 3 Hours **Full Marks: 80**

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own
words as far as practicable.

Group - A

Answer any six questions. **5×6=30**

1. Define operations management. State the objectives of operations management.
2. Explain the Dimensional analysis model for location of facilities problem.
3. Write a short note on Sequence Analysis, in the context of layout of facilities.
4. Briefly explain the concept of process improvement formula.
5. Calculate the standard production per shift of 8 hours duration with the following data.
   Observed time per unit = 5 minutes. Rating factor = 120%.
   Total allowances = 33 $\frac{1}{3}$ % of normal time.
6. Discuss the steps of direct time study approach.
7. State the objectives of educating the internal customers of an organisation.
8. Explain the concept of Six Sigma quality.

Group -B

Answer any five questions. **10×5=50**

9. Identify and explain the seven basic operating system structures.
10. Briefly discuss the basic types of facilities layout.
11. Describe the Brown and Gibson's model on facilities location.
12. Discuss the stages in the plant layout planning procedure.
13. (a) Explain the concept of 'Synthetic Timing'.
    (b) Mr. Ravi, an industrial engineer, did a work sampling study on a bar cutting machine. The details of the study are given below:

Components observed	No. of observations
1. Cutting	95
2. Getting repaired	75
3. Idle for want of work	105
4. Getting cleaned	25
Total no. of observations:	300

Ravi wants the ratios to be accurate within ± 1% at 95% confidence level. In which case should Ravi have taken more observations? What is the level of accuracy you can expect from Ravi's observations?

Please Turn Over

14. (a) In relation to an Operating Characteristics (OC) curve, explain the following terms:
     (i) Consumer's risk, (ii) Producer's risk, (iii) LTPD
   (b) Briefly discuss the five pillars of a quality organisation.

15. Write short notes on:
    (a) Quality grid
    (b) Competitive benchmarking