



Name :
Roll No. :
Invigilator's Signature :

CS/BBA(H)/BIRM/BSCM/SEM-4/BBA-401/2013

2013

PRODUCTION MANAGEMENT

Time Allotted : 3 Hours

Full Marks : 70

The figures in the margin indicate full marks.

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

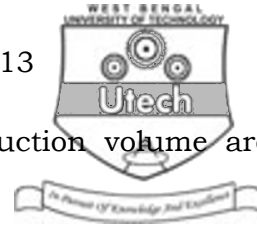
GROUP – A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for any *ten* of the following :

10 × 1 = 10

- i) Process layout is also called
 - a) Straight-line layout
 - b) Functional layout
 - c) layout for serialized manufacture
 - d) none of these.



- ii) Low product variety and high production volume are characteristics of
- a) Job shop production b) Mass production
- c) Batch production d) none of these.
- iii) Ship building industry will be best fitted for
- a) Process layout b) Product layout
- c) Fixed position layout d) none of these.
- iv) Production planning and control is difficult for
- a) Mass production b) Batch production
- c) Jobbing works d) none of these.
- v) Mass production system is adopted when
- a) volume is large and variety is less
- b) volume is small and variety is large
- c) both volume and variety are medium
- d) none of these.
- vi) symbol in method study represents
- a) inspection b) operations
- c) transportation d) storage.



vii) Mass production system is adopted when

- a) volume is very large and variety is less
- b) volume is small and variety is large
- c) both volume and variety are large
- d) none of these.

viii) For an integrated steel plant, the plant location decision will be chiefly influenced by the consideration of

- a) proximity of the market
- b) proximity to the raw material supply source
- c) availability of good transportation
- d) all of these.

ix) Production planning and control is difficult for production system.

- a) Mass
- b) Batch
- c) both (a) and (b)
- d) none of these.



- x) IS 9001 is a system for
 - a) Quality Management
 - b) Operational Planning
 - c) Productivity Improvement
 - d) Preventive Maintenance.
- xi) Statistical quality control is done to
 - a) prevent any defective product from going out of the factory
 - b) observe the trend of product quality
 - c) initiate corrective action if quality trend shows an adverse pattern
 - d) none of these.

GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following. $3 \times 5 = 15$

2. Distinguish between product layout and process layout.
3. Discuss the significance of statistical quality control.
4. A new medical facility, Health-care, is to be located in Delhi. The location factors, factor rating and scores for two potential sites are shown in the following table. Which is the best location based on factor rating method ?

Serial No.	Location factor	Factor rating	Rating	
			Location 1	Location 2
1.	Facility utilization	8	3	5
2.	Total patient per month	5	4	3
3.	Average time per emergency trip	6	4	5
4.	Land and construction costs	3	1	2
5.	Employee preferences	5	5	3



5. Distinguish between preventive maintenance and predictive maintenance.
6. Describe five material handling equipment used in a manufacturing concern.

GROUP - C

(Long Answer Type Questions)

Answer any *three* of the following. $3 \times 15 = 45$

7. a) What is the relationship between Observed time, Normal time and Standard time ?
b) Define Work Measurement.
c) Calculate the standard production per shift of 8 hours duration, the Observed time/unit = 5 minutes, Rating factor = 120% and Total allowances = 40% of Normal time. $7 + 3 + 5$
8. a) Compare product layout with process layout.
b) The workmen in an engineering firm are expected to work for 400 minutes in a shift of 8 hours. The remaining time is meant for rest and personal needs.
 - i) Determine the standard time per piece of a job whose normal time is 2 min.
 - ii) Calculate the number of pieces to be produced per day.
 - iii) If the workmen engaged on the above job produces 180 pieces in a shift, calculate their efficiency.
- c) State the advantages of work sampling over time study.

$5 + 6 + 4$



9. a) What do you mean by Production Planning and Control (PPC) ? State its main objectives.

b) A random sample of 50 switch boards used in electrical assemblies is taken for inspection each day. After inspection, the number rejected from each sample for 10 consecutive days is given below :

Days	1	2	3	4	5	6	7	8	9	10
No. of samples rejected	4	3	2	6	3	1	3	2	9	5

Construct a *p*-chart and comment on the data collected.

c) State the principle of *X*-bar chart and its use in statistical quality control. 7 + 5 + 3

10. a) Explain in brief the principles of 'Materials Handling System'.

b) What is meant by Work Study ? State its advantages. Calculate standard time of a job for which the following data are available : Average time of machine elements = 4 minutes, Average time for manual elements = 2.5 minutes, Performance rating = 80%, Allowances = 15%. 4 + 5 + 6



11. Write short notes on any *three* of the following : 3 × 5

- a) OC-curve
- b) Integrated Materials Management
- c) Kaizen Philosophy
- d) Total Quality Management
- e) Motion Study.

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