

Question Bank (K-scheme)

Name of subject: Industrial Engg. & Quality Control
Subject code:316362
Course: ME6I
Semester: VI

Unit Test: I

Chapter1. PLANT & PROCESS PLANNING

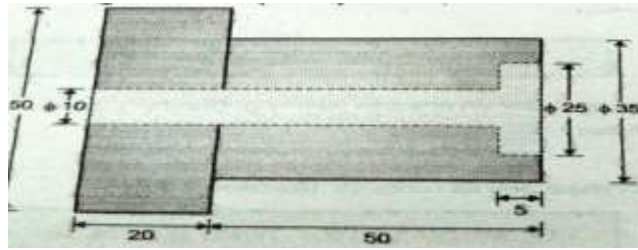
CO1

2 marks questions

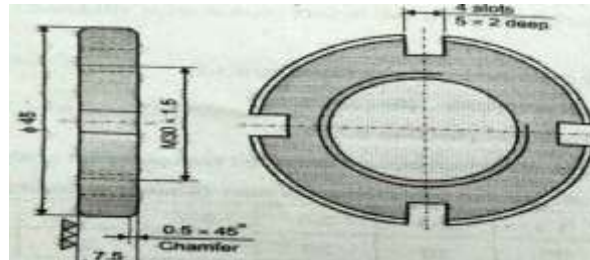
- 1. Define plant location & State its objective**
- 2. State symptoms of good plant layout and bad plant layout**
- 3. Define production & Productivity**
- 4. State factor affecting site selection**
- 5. List technique to improving Productivity**
- 6. List factors to improving Productivity**
- 7. List factors affecting Productivity**
- 8. State information required for process planning.**
- 9. Define process planning. State its function**
- 10. List down the manufacturing operation sequence in process planning.**

4 marks questions

- 1. Explain the design principles of plant layout**
- 2. Explain factor affecting site selection**
- 3. Explain Process layout & write its advantages & disadvantages**
- 4. List Plant layout types & explain any one**
- 5. Differentiate between Product layout & Process layout**
- 6. List Production system types & explain any one**
- 7. Compare between Job Production, Batch Production & Mass Production**
- 8. Compare between Job Production & Mass Production**
- 9. Compare between Job Production & Batch Production**
- 10. Compare between Batch Production & Mass Production**
- 11. Explain technique to improving Productivity**
- 12. Compare between production & Productivity**
- 13. State important functions of process engineering**
- 14. Write procedure involved in process planning.**
- 15. State the factors affecting the process planning.**
- 16. Define operation sheet. State the information contain by operation sheet.**
- 17. Explain the concept of Line balancing with example.**
- 18. Explain sequence of operations in process planning**
- 19. Prepare an operation sheet to produce a hexagonal nut having right hand thread.**
- 20. Prepare operation process sheet and sequence of operation for the component shown.**
Assume suitable cutting parameter.



21. Prepare operation process sheet and sequence of operation for the ring nut assume suitable cutting parameter and raw material 50×10mm blank of carbon steel.



Chapter 2: Work Study

CO2

2 marks questions

1. Define industrial engg. State its need.
2. Define method study.
3. Define work measurement
4. Explain the scope of method study.
5. State the objectives of method study.
6. State the objectives of work measurement.
7. Define time study. List the equipment's for time study.
8. Draw any four therbligs symbols with colour name.
9. Explain any four symbols in Process charts.
10. Draw any four symbols in process chart.
11. Define allowance. List the type of allowances.
12. Define fatigue. List its causes.

4 marks questions

1. Explain the basic procedure of Work study.
2. Explain the basic procedure of Method study
3. Explain the basic procedure of Work measurement.
4. Explain time study form with sketch
5. Draw two handed process chart for the assembly of Nut and Bolt with summary.
6. Draw two handed process chart for an activity of replacing the old battery of mobile handset.
7. Explain string diagram with neat sketch.
8. Explain the general steps for conducting the time study.
9. Explain the technical consideration while selecting the work for method study.
10. Explain the economic consideration while selecting the work for method study.
11. Explain the human consideration while selecting the work for method study
12. Draw outline process chart to change SIM CARD of a mobile phone.

13. A particular activity on the shop floor consists of three elements. Calculate the standard time for the activity. The various allowances are given as percentage of the normal time. Calculate the standard time for each element.

| Elements | A | b | C |
|---------------------|-----|-----|-----|
| Observed time (min) | 1.0 | 1.5 | 2.0 |
| Rating factor (%) | 125 | 120 | 110 |
| Allowances (%) | 20 | 15 | 20 |

14. A particular activity on the shop floor consists of three elements. Calculate the standard time for the activity. The various allowances are given as percentage of the normal time.

| Elements | A | b | C |
|---------------------|-----|------|------|
| Observed time (min) | 1.2 | 0.50 | 0.80 |
| Rating factor (%) | 80 | 90 | 75 |
| Allowances (%) | 22 | 19 | 20 |

15. A worker takes 15 minutes as a standard time for a job in which total allowance is 20% of normal time. If the rating of worker is 100%. Find the actual time required by the worker.

Chapter 3: Quality control & Inspection

CO3

2 marks questions

1. Define Quality.
2. Define Quality Control
3. List objectives of Quality control.(Any4)
4. List out the various factors affecting quality of product
5. State quality characteristics with suitable example
6. State the meaning of Quality of Design.
7. State the meaning of Quality of Conformance.
8. State the meaning of Quality of Performance.
9. Define quality assurance with two advantages
10. List down advantages of Quality assurance. (Any4)
11. Define Cost of quality and value of quality

4 marks questions

1. Define Quality characteristics with two examples.
2. State the various objectives of the Quality control
3. Differentiate between Quality control and Quality assurance
4. Explain Quality of Design, Quality of Conformance & Quality of Performance.
5. Explain the meaning of optimum quality of design with the help of graph
6. Explain the four cost involved in economics of quality
7. Explain the meaning of Cost of quality, value of quality
8. Explain the meaning of cost of quality appraisal, prevention, external and internal failure cost.
9. Explain the meaning of External and Internal failure cost.`