

JK LAKSHMIPAT UNIVERSITY, JAIPUR

INSTITUTE OF ENGINEERING AND TECHNOLOGY

End Term Examination (Regular/ Backlog), Nov-Dec. 2017

B.Tech in Mechanical Engineering, Semester -V

Roll No.....

ME-505: Production Planning and Control

Time: 3 hours

Max. Marks: 100

Instructions to students:

1. Do not write anything other than your roll number on question paper.
2. Assume suitable data wherever required and mention it clearly.
3. Writing appropriate units, nomenclature, and drawing neat sketches/schematics/ flow chart wherever, required are an integral part of the answer.

Q.1A Objective type multiple choice questions (10 questions @ 1 mark)

10

- i. The most important function of inventory control is:
(a) stock control system (b) to run the store efficiency
(c) technical responsibility for the state of materials (d) all of the above
- ii. Dispatching : (a) prescribes the sequence of operations
(b) determine the program for the operations
(c) is concerned with the starting of processes
(d) regulate the progress of job through various processes
- iii. The word kanban is most appropriately associated with:
(a) economic order quantity (b) just in time production
(c) capacity planning (d) product design
- vi. Break even analysis consist consists of:
(a) fixed expenses (b) variable cost (c) sales revenue (d) all of these
- v. In time study, rating factor is applied to determine:
(a) Standard time of a job (b) merit rating of the worker
(c) fixation of incentive rate (d) normal time of a worker
- vi. The correct sequence of operations in production planning and control is:
(a) Routing → Scheduling → Dispatching → Follow up
(b) Scheduling → Routing → Dispatching → Follow up
(c) Dispatching → Routing → Scheduling → Follow up
(d) Routing → Scheduling → Follow up → Dispatching
- vii. Which of the following is not a part of Five M's?
(a) Material (b) Machine (c) Motion (d) Method
- viii. Which of the following is true for 'Routing'?
(a) It is flow of work in the plant
(b) Route sheets include list of machine tools that are to be followed
(c) It depends upon material handling facilities
(d) All of the above
- ix. Loading involves:
(a) Sending the raw material to the machine

	(b) Sending the finished material to the store	
	(c) Assigning the work to the facilities	
	(d) Uploading a software in machine control panel	
x.	A-B-C analysis is used in:	
	(a) CPM (b) PERT (c) inventory control (d) all of these	
Q.2	Short answer type questions (4 questions @ 2.5 marks)	10
1	Define break even analysis.	
2	What is the work sampling?	
3	Definition of re-order point.	
4	What are the components of scheduling?	
Q.3A	For small scale industry, the fixed cost per month is Rs.5000. The variable cost per product is Rs.20 and sales price is Rs.30 per piece. The break even production per month will be.	05
Q.3B	Define types of production.	05
Q.4A	Briefly explain Gantt chart	05
Q.4B	Difference between MRP and MRP-II.	05
Q.5A	What are different types of production schedules commonly employed in a manufacturing enterprise?	05
Q.5B	Differentiate between Micro motion and Memo motion study.	05
Q.6A	What is process planning? Explain an engineering approach to a production process planning.	05
Q.6B	Explain A-B-C analysis in detail.	05
Q.7	What are the principle functions of Dispatching? What are the documents generally prepared while performing Dispatching function?	10
	OR	
Q.7	What are the steps in stop watch time study? What are the limitations of stop watch time study?	10
Q.8	What is the concept of JIT manufacturing and benefits of JIT and limitations.	10
Q.9	Explain scope of CAD/CAM and CIM in detail.	10
Q.10	What is the function of inventory and also explain classification of inventory in detail.	10
	OR	
Q.10	What is process planning? Explain an engineering approach to a production process planning in detail.	10