Code : 302402

BBA 4th Semester Theory Examination, 2017

Production and Operations Management

Time : 3 hours   *Full Marks : 60*

Instructions :

(i) *There are* seven *questions in this Paper.*

(ii) *Attempt* five *questions in all.*

(iii) *Question No. 1 & 2 is compulsory.*

(iv) *The marks are indicated in the right-side margin.*

1. Answer any 6:   6×2

(i) Which kind of labour force is required in case of jobbing production?

  (a) Highly skilled   (b) Semi skilled

  (c) Unskilled   (d) Any of the above

(ii) Most Inventory models attempt to minimize

  (a) the likelihood of a stockout

  (b) the number of items ordered

  (c) total inventory based costs

  (d) the number of orders placed

(iii) Which of the following is true regarding forward scheduling? Forward scheduling is the scheduling of

  (a) the end items of finished products

P.T.O.

(b) jobs as soon as the requirements are known

(c) the start items or component parts

(d) the final operation first beginning with the due date

(iv) Which of the following is not the characteristic of Project Production?

  (a) Continuous flow of material

  (b) Highly mechanised material handling

  (c) Virtually zero manufacturing cycle time

  (d) All of the above

(v) What type of process would a paper mill be most likely to use ?

  (a) Continuous flow   (b) Project

  (c) Job shop   (d) Flow shop

(vi) What type of control chart is used to monitor the number of defects per unit

  (a) p-chart   (b) R-chart

  (c) c-chart   (d) x-bar chart

(vii) The first steps of capacity planning and control do not include:

  (a) Studying the effect of queueing theory

  (b) Choosing the most appropriate capacity plan

  (c) Identifying the alternative capacity plans

  (d) Measuring aggregate demand and capacity

(viii) Fixed position layout is adopted when

Code :302402   2

(a) Products are of different variety

(b) Product is very heavy involving assembly of large number of parts

(c) Products are in large numbers

(d) All of the above

(ix) What are the two basic types of production systems?

(a) Automated and manual

(b) Intermittent and non-intermittent process

(c) Normal and continuous process

(d) Continuous process and batch

(x) Most imprecise definition for quality is

(a) Fitness for use

(b) Meeting customers expectations

(c) Completeness of requirements

(d) Efficient and effective product

2. Answer any three: 3×4=12

(i) Discuss the basic steps in planning process.

(ii) Explain cellular manufacturing with the help of a suitable example.

(iii) Explain the use of statistical quality control in controlling quality of production operations.

(iv) How does the production and operations management function distinguish itself from other functions of management?

3   P.T.O.

Code : 302402

(v) Why is an ISO 9000 certification important to a firm?

3. What is Just-In-Time production? What are their aims? Does JIT combine the benefits of job order production and that of line production? Explain.   12

4. What information is necessary for an industrial engineer to prepare a layout of a manufacturing unit? Distinguish between process and product layout. Explain where they are used.   12

5. Define inventory. What are the benefits for holding inventory? Define the types of inventory. What are the costs associated with inventories.   12

6. What functions of the firm impact an MRP system?

Each unit of end product X requires two units of sub component Z. the lead time for X is one week, the standard order quantity is 40 units, and current availability is 35 units. Gross requirements for the next six weeks are 25, 30, 20, 15, 15 and 20 units respectively. For item Z, lead time is two weeks, standard order quantity is 80 units, and current availability is 90 units. A scheduled receipt for 80 Z is due in week 1. Develop MRP records for X and Z.   12

7. Explain in brief: 2×6=12

(a) Product development techniques.

(b) World class manufacturing.

***

Code: 302402   4