Roll No. | | | | | | | | | | | | | Total No. of Pages : 03

Total No. of Questions : 17

MBA (2019 Batch) (Sem.–2)

PRODUCTION AND OPERATIONS MANAGEMENT

Subject Code : MBA-205-18

M.Code : 76157

Time : 3 Hrs. Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A contains EIGHT questions carrying TWO marks each and students has to attempt ALL questions.**
2. **SECTION-B consists of FOUR Subsections : Units-I, II, III & IV. Each Subsection contains TWO questions each carrying EIGHT marks each and student has to attempt any ONE question from each Subsection.**
3. **SECTION-C is COMPULSORY and consist of ONE Case Study carrying TWELVE marks.**

SECTION-A

1. What are the objectives of inventory management?
2. Differentiate between work study and method study.
3. Give various requirements of lean production system.
4. Name the techniques used for quality improvement.
5. What is the difference carrying cost and stock out cost?
6. What is meant by acceptance sampling?
7. Enumerate the factors affecting the location decision of a food plant.
8. Give two applications of control charts.

SECTION-B

UNIT-I

9. Explain the 'transformation process model' for a chemical plant's operations. What are the responsibilities of an operations manager?
10. Describe the four basic types of production processes. What are the advantages and disadvantages of each? When should each be used?

UNIT-II

11. List five objectives of facility layout. How does layout affect efficiency?

12. Discuss the various steps in capacity planning. How is capacity choices linked to other operation management decisions?

UNIT-III

13. What are quality circles? What are the dimensions of product quality?

14. TQM focuses on "*Satisfy the customer first, last and always*". Explain with help of Six Sigma model.

UNIT-IV

15. Define Economic order quantity. Explain KANBAN system for inventory management.

16. What is meant by value analysis? Explain the concept of virtual factories.

SECTION-C

17. **Read the small case study about the process design of Boeing's 777 aircraft :**

Boeing brings its customers on board Arguably the most innovative new passenger aircraft to enter service over the last few years was the Boeing 777, a new twin-engined aircraft, in the 300-plus seats category to compete with established models from McDonnell and Airbus. The existence of established competitor products is important. When Boeing developed the 747 'Jumbo' jet aircraft, it had no direct competitors. The company's customers either wanted the product or they didn't. Not so for the 777; Boeing knew that it must consider its customers' requirements.

The company had to take a new course - to understand its customers' needs and then to transform that knowledge into an aircraft that could best meet those needs. Boeing has always maintained close involvement with its customers, but this project called for a new depth of listening and understanding. Initially, eight large potential customers (including British Airways, Japan Airlines and Qantas) were invited to participate in creating the design concepts. It soon became clear that the customers did have important requirements, the most vital of which was that the aircraft should be around 25 per cent wider than the 767. In fact Boeing had originally hoped to lengthen the 767 fuselage to give the extra capacity, so avoiding some of the costs involved in a completely new fuselage. The customers also wanted much more flexibility in the configuration of the

passenger space. Conventionally, cabin space had been divided up into sections, separated by fixed galleys and toilets at predetermined positions, fixing the ratio of passenger capacities of each class. However, the airlines all indicated that they wanted to be able to configure the cabin to their own requirements. Finally, the airlines insisted that the new design should be free of the usual level of minor, but irritating, faults which had bugged the early operations of some of the other aircraft. Boeing did meet its customers' requirements and even improved upon them in some ways. They achieved this by using design/build teams, and by a particularly powerful computer-aided design (CAD) system. Customers were closely involved right from the start of the design. They even came up with some good suggestions. For example, one airline suggested a new layout for the rear galley which allowed an extra 12 seats to be included in the aircraft.

Answer the following questions :

a) What steps Boeing need to take for improving service quality?

b) What problems do you think might be associated with bringing customers together?

c) What are various layout decisions Boeing took for improving the services? What are your suggestions?

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.