1. (a) Explain the term productivity and jot down the ways through which a Production Manager can bring about improvement in productivity.

(b) What is ‘Service Quality’? Give brief explanation of any five characteristic of Service Quality.

2. (a) What is meant by Capacity Cushion, also highlight its merits and demerits?

(b) As per your understanding explain the term JIT Inventory Management System and also discuss how does JIT Inventory Management System help in cutting down the cost of production?

3. (a) Discuss Process Capability in depth and also highlight the role of six sigma in assessing the capability or incapability of a process.

(b) Highlight the major factors involved in plant location and identify a kind of Business for which each would be crucial.

4. (a) Define technology and pen down its importance from point if view of a Modern operations manager.

(b) Explain each component of Computer Integrated Manufacturing.

5. (a) Highlight the advantages of Material Requirement Planning. Discuss the Vital inputs and outputs required to create MRP explosion.

(b) What is EOQ? What assumptions should be made in calculating EOQ?
KARACHI UNIVERSITY BUSINESS SCHOOL  
University of Karachi  
FINAL EXAMINATION, JANUARY 2010: AFFLIATED COLLEGES  
PRODUCTION MANAGEMENT: BA (M) – 631  
MBA – III  

Date: January 8, 2010  
Max Time: 3 Hrs  
Max Marks: 60  

Instruction: Attempt any FIVE questions/all questions carry equal marks

Q.1 (a) What is the significance of production and operation management in organization also state its integral relation with other business functions.

Q.1(b) What is meant by productivity measurement and what are substantial measurement problems associated with productivity measurement also discuss the role of productivity variables critical to productivity improvement?

Q.2 (a) Define process strategy and describe briefly the three types of process supported with examples.

Q.2 (b) What is statistical process control also discuss the importance of control chart in this context.

Q.3 (a) Why capacity planning is essential in determining the size of a facility and what are the associate issues the management is usually confronted with?

Q.3 (b) What is the objective of location strategy in industrial location analysis decisions also discuss the factors that require location decisions to be analyzed objectively.

Q.4 (a) What are the three major functions of inventory, also discuss what is meant by ABC analysis?

Q.4 (b) Define the following:  
  i.  Just-in-time inventory  
  ii.  Kanban system  
  iii.  Holding costs

Q.5 (a) What issues must be considered by the operation manager when generating an aggregate plan.

Q.5 (b) State some of the benefits of Material Requirement Planning (MRP)

Q.6. Differentiate between the following:  
  i.  Pert and CPM  
  ii.  Value analysis and Value Engineering  
  iii.  Engineering Drawing and Bill-of-material
Q1(a). Name what Quantitative tools used for decision making by operations/production managers? Describe any one in detail using table/pictorial presentation. (1+4)

Q1(b). What are various capacity strategies, which firms may adopt depending upon the nature of their business? Explain any two with the help of graphical representation. (2+5)

Q2(a). Describe briefly the dominant factors in plant location, and identify a kind of business for which each would be crucial. (5)

Q2(b). Why there is a high pressure for maintaining high level of inventory in organizations? Describe any 4 reasons. (1+4)

Q2(c). How does decision making in Inventory Management under certainty differ from decision making under uncertainty? (2)

Q3(a). What is capacity cushion? What are the advantages and disadvantages of having a capacity cushion? (1+2+2)

Q3(b). What are the benefits of Material Requirement Planning? What inputs are necessary to create MRP explosion? What outputs come out of MRP explosion? Use a block diagram to explain your concept. (2+2+3)

Q4(a). What kind of pressures are faced by organizations in maintaining JIT inventory management? Indicate the areas which need to be improved for achieving JIT in any production system. (4+3)

Q4(b). Shaista produces 100 dolls herself in 8 working hours every day. The material cost is Rs.50/doll; Rs.20/doll is the cost of utilities & transportation. Rs.2000/- are paid for paints every day. She charges Rs.200/hr for her time. Each doll is sold at a price of Rs.300. What is the M F Productivity? If for improving the quality she changes the paint scheme and pays Rs.500/- per day what will be the M F Productivity? (3+2)

Q5 (a). What do mean by Operations Strategy? How competitive priorities impact the corporate strategy of an organization? What factors must be considered while formulating Corporate Strategy? (1+2+3)
Q5(b). Assuming in the year 2050 Pakistan Govt. decides to subsidize and promote the use of robots in the industry and computer integrated manufacturing, what impact it may have on the (i) Productivity (ii) standard of living (iii) human development?

Q6(a). What is Process Management? What are the occasions when organizations should make Process decision? (2+5)

Q6(b). Use a cause-and-effect diagram to display and organize the potential causes of a problem such as “students preferring a University to join for MBA degree program” To get started, use men, material, management and quality being main sources of the problem (5)

Q7(a). What must be kept in mind by managers when they are using Learning Curves as a toll for operations planning? How learning curve helps in Financial Planning/Bid preparation? (5)

Q7(b). What is the one worker, multiple machines (OWMM) concept? What is group technology (GT) cell? Explain with the help of diagrams. How they are different and what do they have in common with reference to layout planning? (3+3+2)

Q8(a). Explain why the process capability ratio (Cp) alone cannot irrefutably indicate process capability. What does the Cpk indicate? Show pictorially. (3+2)

Q8(b). Discuss the importance of suppliers of materials and services, within a supply chain, being provided with customer demand and production information. (4)

Q8(c). Write short note on any one of the following. (3)

  i. Bottle neck in a system
  ii. Cost of poor Quality
  iii. SPC Tools
KARACHI UNIVERSITY BUSINESS SCHOOL
University of Karachi
FINAL EXAMINATION, JANUARY 2009: AFFILIATED COLLEGES
PRODUCTION MANAGEMENT: BA (M) – 631
MBA – III

Date: January 18, 2009
Max Marks: 60

Time allowed: 3 Hours

Attempt any Five (05) questions. All questions carry equal marks.

Q.1 (a) What do you understand by Production & Operations Management? Explain. 5
(b) What factors should be considered in developing effective Operations & Production Strategy? 6

Q.2(a) What does the term Capacity mean? Why there is need for capacity planning? 6
(b) What is considered most important in capacity planning? 6

Q.3(a) What do the terms Productivity and Quality referred to? How important is quality to an organization or nation? 6
(b) How managers go about establishing or achieving the desired quality? 6

Q.4(a) What do you understand by JIT Inventory Management System? How does it help in lowering cost of production? 8
(b) What advantages accrue from maintaining this Inventory system (JIT)? 4

Q.5(a) What factors are to be considered in locating a new Cement Plant? 6
(b) Justify the application of each factor you consider is necessary in locating a cement plant. 6

Q.6(a) What is ABC Analysis? How it help in maintaining a good inventory system? 5
(b) What is the Economic Order Quantity (EOQ)? What assumptions must be made while calculating EOQ? 7

Q.7(a) What is process capability? How does six sigma play in assessing whether the process is capable or not? 8
(b) What are the components of computer integrated manufacturing? Explain each component. 4
Q-1 Define Production and Operations Management in your own words. 04
Will your definition accommodate both manufacturing and service organizations? Explain. 08

Q-2 Two students of Business Administration (assume the student A and student B) were arguing on the ideas of including Production Management as a full-fledged course in Business Administration studies. Student A views that course is not important for MBA students and should not be included in the course, on the other hand student B believes that the course is important and must be taught to MBA students and therefore it must be included in the course. With whom would you agree? Justify your answer. 12

Q-3 (a) Define Productivity. How operations manager can improve productivity of an organization? Why should they be concerned about it? Explain. 06

(b) Calculate the productivity of the following operations. 06

I. In a bulb manufacturing factory the employees produce 2000 bulbs in a week. The workers work from 9:00 AM to 5:00 PM five days a week.

II. A team of workers manufacture 400 units, which is valued by its standard cost of Rs.100 (before markups for other expenses and profits). The accounting department reports that for this job the actual cost is Rs.400 for labor, Rs.1,000 for material and Rs.300 for overhead.

Q4- (a) From the viewpoint of operations manager discuss the importance of Inventory Policy. 05

(b) Differentiate between deterministic demand and probabilistic demand? 02

(c) What is EOQ? Under what conditions you’ll prefer to use “static EOQ model”. Briefly explain. 05

Q-5 Define the meaning of technology. Why technology is so important to modern operations manager? Explain. 12

Q-6 Write short notes on the following: 12
   i. Operation research techniques
   ii. Importance of workforce management
   iii. Project manager’s functions
(1) Explain Operations Management as a function and how does it differ from other management functions. (08)

(2) Describe the differences and similarities with examples between manufacturing and service organization. (08)

(3) (a) Explain multifactor productivity and describe how to increase the productivity of a service organization. (08)

(b) Find out multifactor productivity ratio when student tuition fee at Xyz University is $100 per semester credit hour. The state supplements school revenue by matching student tuition, dollar for dollar. Average class size for a typical 3 – credit course is 50 students. Labor costs are $4000 per class, material costs are $ 20 per student per class and overhead costs are $ 25000 per class. (08)

(4) Describe the dominating factors affecting location decision for establishing new manufacturing plants. (08)

(5) Explain process management and describe in detail the five different process choice. (08)

(6) Describe management of technology and explain information technology’s role in improving Business performance. (08)

(7) Write Short notes on any two of the followings: (06)

   a) Job specification and job description
   b) ABC classification of material inventory
   c) PERT & CPM
INSTRUCTIONS

Attempt all the following questions

Q.No.1. Explain the role of master production schedule and how it helps material requirement Planning. (08)

Q.No.2(a). What do you understand by total productivity and explain what measures would you suggest to increase the productivity of a manufacturing organization?

(b) M/s. Global Garment factory makes fashionable garments during a particular week employees work 360 hours to produce a batch of 132 garments of which 80 were ‘A’ grade (good quality) and are sold for $200 each and the remaining 52 garments of ‘B’ grade (poor quality) are sold for $90 each. What is the labor productivity ratio?

Q.No.3. Describe process management and explain different process choices. (08)

Q.No.4. Explain technology is a competitive weapon and its role in improving business performance. (08)

Q.No.5. Explain project management and project team and describe project managers Function. (08)

Q.No.6. Explain the importance of manpower planning in an organization and highlight the differences of job specification and job description. (08)

Q.No.7. Write short notes on any two of the followings:

   a) Just-in-Time (JIT)
   b) ABC Classification of Materials Inventory
   c) PERT & CPM

P.T.O
Q.No.8. MCQ’s

1. Increasingly important factors in production management is accelerating __________ change.
   a) Economical           b) Technological           c) Environmental

2. The right choices and effective management of technology can give a firm ___________ advantage.
   a) Competitive           b) Production           c) Sales

3. Total factor productivity is the ratio of ______________.
   a) Output to input       b) Input to output       c) Output to all inputs

4. Processes are fundamental to all ______________ that produces goods or service.
   a) Problems           b) activities           c) solutions

5. Technology strategy deals with more than just ______________ choice.
   a) Process           b) operation           c) technological

6. One of the first decisions a manager makes in designing a well functioning operation is to choose ______________.
   a) Process           b) product           c) service
Date: June 23, 2006
Time: 3 Hours

Max Marks: 60

Attempt the following question:

Q1. Describe the fundamental role of the computer and information technology in reshaping an organization’s production processes.

Q2. a) Do you think production and productivity is same if not explain the difference between production and productivity. What measure would you suggest to increase the productivity of an organization?

   b) Calculate the productivity – A team of workers made 400 units of a product, which is valued by its standard cost of $1 each. The accounting department reported that for this job the actual costs were $400 for labor, $1000 for materials and $300 for overhead.

Q3. Discuss how process choice implements flow strategy and how the five process choice differ.

Q4. Describe the principles of a TQM program and how the TQM elements fit together to make improvements in quality and productivity.

Q5. a) Discuss the factors dominating location decision for new manufacturing plants.

   b) Find which of the location A or B is most attractive by Break-Even analysis when Location A has Annual Fixed Cost of $300,000 Variable costs of $63/unit and revenue of $68/unit where as Location B has Annual Fixed Costs $800,000 Variable Costs are $82 units and Revenues are $68/unit. Sales volume is estimated to be 25000 units/year.

Q6. Discuss inventory concepts and explain different types of inventory.

Q7. Define and explain job analysis, Job specification and Job description.

Q8. Write short notes on any two of the following.
   1) Quality as a competitive weapon
   2) Just-in-time system
   3) PERT & CPM