



## BRAINWARE UNIVERSITY

### Term End Examination 2020 - 21

Programme – Bachelor of Business Administration

Course Name – Production & Operations Management

Course Code - BBA304

Semester / Year - Semester III

Time allotted : 85 Minutes

Full Marks : 70

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

### Group-A

(Multiple Choice Type Question)

1 x 70=70

1. (Answer any Seventy )

(i) Which of the following functions is not a core function of an organization

- |  |  |
|--|--|
| a) The accounting and finance function | b) The marketing (including sale) function     |
| c) The operation function              | d) The product or service development function |

(ii) Most operation produce a mixture of both products and services which of the following business is closest to producing 'pure' services?

- |                  |                         |
|------------------|-------------------------|
| a) IT company    | b) Counselor /therapist |
| c) Steel company | d) A restaurant         |

(iii) Which of the following activities is not a direct responsibility of operations management?

- |  |   |
|--|---|
| a) Developing an operations strategy for the operation | b) Planning & controlling the operations                  |
| c) Determining the exact mix of products and services. | d) Designing the operations products , services & process |

(iv) Operations management is applicable

- |                                       |   |
|---------------------------------------|---|
| a) Mostly to the service sector       | b) To services exclusively                |
| c) Mostly to the manufacturing sector | d) To the manufacturing & service sectors |

(v) The field of operations management is shaped by advances in which of the following fields?

- a) Chemistry and physics
- b) Industrial engineering & management science
- c) Biology and anatomy
- d) Information science

(vi) The five element in the management process are

- a) Plan ,direct , update, lead & surprise
- b) Accounting /finance , marketing, operations and management
- c) Organize, plan, control, staff and manage
- d) Plan, organize, staff , lead and control

(vii) The responsibilities of the operations manager include

- a) Planning , organizing , staffing , procuring and reviewing
- b) Forecasting , designing , planning , organizing , and controlling
- c) Forecasting , designing ,operating , procuring , and reviewing
- d) Planning , organizing , staffing , leading , and controlling

(viii) Which of the following is not an element of management process

- a) Pricing
- b) Staffing
- c) Planning
- d) Controlling

(ix) Which of the following illustrate an activity that does not add value?

- a) Training employees
- b) Ordering parts from a supplier
- c) Making a part
- d) Accumulating parts in front of the next work centre

(x) Which of the following statements regarding a pull system is true ?

- a) Large lots are pulled from upstream stations
- b) Work is pulled to the downstream work stations before it is actually needed
- c) Manufacturing cycle time is increased
- d) Problems become more obvious

(xi) What term describes a vertical expansion of job duties in order to give the

worker more responsibility

- a) Job enlargement
- b) Job rotation
- c) Job enrichment
- d) Job design

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

- a) Continuous flow
- b) Project
- c) Job shop
- d) Flow shop

(xiii) What priority rule is being used when jobs are processed according to the lowest ratio of due date to remaining processing time?

- a) CR (critical ratio)
- b) EDD (earliest due date first)
- c) FCFS (first come, first served)
- d) S/O (least slack per operation first)

(xiv) Moving from the aggregate plan to a master production schedule requires

- a) Rough cut capacity planning
- b) Sub-optimization
- c) Disaggregation
- d) Strategy formulation

(xv) Which of the following statements is true of Lean-Six Sigma?

- a) Lean principles focus on advanced statistical methods.
- b) Lean principles and Six-Sigma are separate bodies of knowledge
- c) Lean principles have been developed over a lengthy period of time.
- d) Lean principles include the 5Ss framework and practices.

(xvi) Which one of the following descriptions best defines the cycle-service level as a measure of customer service?

- a) The preferred proportion of annual demand instantaneously filled from stock
- b) The number of stock outs tolerated per year
- c) The preferred proportion of days in the year when an item is in stock
- d) The desired probability of not running out of stock in any one inventory cycle

(xvii) For an item under continuous review, the on-hand inventory is only 20 units and the reorder point R is 100 units. There are no backorders, but there is

one open order for 90 units. Which one of the following statements is TRUE?

- a) There is no need to order at the present time.
- b) The current inventory position is 100 units
- c) An order should be placed now for 20 units.
- d) An order should be placed now for 10 units

(xviii) Process planning describes

- a) How the product will perform
- b) How the product will look
- c) How the product will be made
- d) how easily the product can be maintained

(xix) One solution to the problem of how you can gain the cost benefits of standardization without losing the market advantages of product variety is

- a) Design for robustness
- b) Quality function deployment
- c) Modular design
- d) Process planning

(xx) The objective of failure mode and effects analysis is to

- a) Anticipate product failures and prevent them from occurring
- b) Devise ways of minimizing the impacts of product failures when they occur
- c) Describe the interrelationships among product failures
- d) Quantify the likelihoods of different product failures

(xxi) Which of the following components in a "House of Quality" drives the entire QFD process

- a) Roof matrix
- b) Customer requirements
- c) Product characteristics
- d) All of these

(xxii) New product ideas can come from

- a) Customers
- b) Competitors
- c) Suppliers
- d) All of these

(xxiii) A driverless truck that follows a path of rails or wires embedded in the

floor is called

- a) an ATC
- b) a FMS
- c) an AGV
- d) All of these

(xxiv) \_\_\_\_\_ is a strategy for organizing and controlling a factory rather than a technology that can be purchased.

- a) FMS
- b) CIM
- c) CPSS
- d) All of these

(xxv) Very high volume commodity products are best suited to

- a) Projects.
- b) Batch production.
- c) Mass production
- d) Continuous processes

(xxvi) Locating all the drills in one work center lathes in another work center and milling machines in yet another work center represents what type of layout?

- a) Fixed-position layout
- b) Product layout
- c) Process layout
- d) None of these

(xxvii) Cycle time is not

- a) The time required to complete a product from start to finish
- b) The maximum allowable time at each work station
- c) Daily operating time divided by desired production
- d) None of these

(xxviii) A common goal in designing process layouts is:

- a) Minimizing the number of workers
- b) Minimizing material handling costs
- c) Minimizing idle time
- d) None of these

(xxix) An assembly line consists of 5 tasks with times of 12, 9, 8, 7, and 11 minutes. The cycle time for the line is 25 minutes. The theoretical minimum number of workstations for this situation is

- a) 1
- b) 2
- c) 3
- d) 4

(xxx) Another term for a process layout is

- a) Job shop layout
- b) Functional layout
- c) Mixed-model layout
- d) Group technology layout

(xxxii) Economies of scale hold when

- a) Construction costs do not increase linearly with output levels
- b) Production efficiency increases as workers gain experience
- c) Quantity discounts are available for material purchases
- d) All of these

(xxxiii) A chase demand strategy should be followed when

- a) Worker skill qualifications are high
- b) Unemployment rates are low
- c) Inventory costs are high
- d) All of these

(xxxiv) Which of the following aggregate planning techniques guarantees an optimal solution?

- a) Linear programming
- b) Search decision rule
- c) Management coefficients model
- d) All of these

(xxxv) All of the following statements concerning level production are true except

- a) Level production strategy sets production at a fixed rate
- b) The main costs of level production involve hiring and firing
- c) Level production strategy uses inventory to absorb variations in demand
- d) All of these

(xxxvi) In production planning, the level of detail from highest to lowest is

- a) Master production schedule, aggregate plan, material requirements plan
- b) Aggregate plan, material requirements plan, master production schedule

c) Aggregate plan, master production schedule, material requirements plan

d) None of these

(xxxvi) Which one of the following is the most significant disadvantage of standardization?

a) Frozen designs

b) Interchangeable parts

c) Reduced variety

d) Customized parts

(xxxvii) Robustness of a product is \_\_\_\_\_ related with the probability of failure.

a) Directly

b) Inversely

c) Linearly

d) None of these

(xxxviii)

The process selection should take into account all of the following EXCEPT:

a) Capacity planning

b) Design of work systems

c) Production forecasts

d) None of these

(xxxix) Low cost, higher volume items requires

a) No inspection

b) Little inspection

c) Intensive inspection

d) 100% inspection

(xl) Which manufacturing facility produce some intermediate varieties of products with intermediate volumes

a) Job Shop

b) Project

c) Batch Manufacturing

d) Flow Shop

(xli) Which of the following is a construction type algorithm for layout design

a) ALDEP

b) CRAFT

c) SLP

d) None of these

(xlii) In which of the below mentioned activities should have same starting and ending nodes

- a) Serial
- b) Parallel
- c) Both Serial and Parallel
- d) None of these

(xliii) What technique deals with the problem of supplying sufficient facilities to production lines or individuals that require uneven service?

- a) Supply-demand theory
- b) PERT
- c) Inventory theory
- d) Queuing theory

(xliv) A manufacturer has been receiving excessive numbers of defective standard machine parts from a vendor on a regular basis. What is the most effective way to design a formal inspection system for incoming parts?

- a) Queuing analysis
- b) Time series analysis
- c) Statistical quality control
- d) Regression analysis

(xlv) At the completion of the forward and backward passes, the slack for an activity is given by the

- a) Difference between early start and early finish
- b) Difference between early start and latest finish
- c) Difference between latest start and early finish
- d) Amount of idle labor on the critical path

(xlvi) 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

(xlvii) A project has three paths: A—B—C has a length of 25 days. A—D—C has a length of 15 days. A—E—C has a length of 20 days. Which of the following statements is correct?

- a) A—D—C is the critical path.
- b) A—B—C has the most slack.



- c) The expected duration of the project is 25 days.      d) The expected duration of this project is 60 days.

(xlviii) If an artificial variable remains in the solution with a positive value after the stopping criterion has been reached, the problem

- a) Is infeasible      b) Is optimal  
c) Needs a new basis      d) Has more than one solution

(xlix) What are the two sources of costs in queuing analysis?

- a) Arrivals and departures      b) Arrivals and idleness  
c) Waiting customers and capacity      d) Equipment breakdowns and departures

(l) The transportation model method that is used to evaluate location alternatives minimizes total

- a) Sources      b) Destinations  
c) Capacity      d) Shipping Costs

(li) What is simulation?

- a) A quick solution method to problem-solving      b) A formalized deterministic approach to problem-solving  
c) A graphical method to problem-solving      d) A trial-and-error approach to problem-solving

(lii) What is the full form of PERT

- a) Program Evaluation and Review Technique      b) Project Evaluation and Review Technique  
c) Period Evaluation and Review Technique      d) None of these

(liii) State the full form of ABC

- a) Always Better Control      b) Always Best Control  
c) Always Behind Control      d) None of these

(liv) Which of the following is true for VED analysis

- a) Material Cost is taken in consideration
- b) Essentiality is considered
- c) Storage Cost is maximum
- d) None of these

(lv) Which if the following is true in case of CPM

- a) It's the maximum duration of Project
- b) It's the minimum duration
- c) It's the average time
- d) All of these

(lvi) The formula for EF is

- a)  $ES + \text{Duration}$
- b)  $LS + \text{Duration}$
- c)  $ES - \text{Duration}$
- d) All of these

(lvii) Which of the following sequence of activity do not have activities same starting and ending node

- a) Serial
- b) Parallel
- c) Both Serial and Parllel
- d) None of these

(lviii) The variance of an activity in project management is given by the formula

- a)  $(tp-to)^2/6$
- b)  $(tp-to/4)^2$
- c)  $\{(tp-to)/6\}^2$
- d) None of these

(lix) In which of the following the peak manpower requirement is limited to the given constraint on the manpower availability

- a) Resource Allocation
- b) PERT
- c) Network Crashing
- d) Resource Leveling

(lx) Which of the following is the application of a set of techniques to an existing product with a view to improve its value

- a) Value Analysis
- b) Value Engineering
- c) Value Stream Mapping
- d) None of these

(Ixi) AQL Means

- a) Average Quality Level
- b) Acceptable Quality Level
- c) Arithmetic Quality Level
- d) None of these

(Ixii) The other name of Type II Error is

- a) Producer's Risk
- b) Consumer's Risk
- c) Employee's Risk
- d) All of these

(Ixiii) The objective of ISO-9000 family of Quality management is

- a) Customer satisfaction
- b) Employee satisfaction
- c) Skill enhancement
- d) Environmental issues

(Ixiv) Which of the following is responsible for quality objective?

- a) Top level management
- b) Middle level management
- c) Frontline management
- d) All of these

(Ixv) The following is (are) the machine down time.

- a) Waste
- b) No material
- c) Breakdown
- d) All of these

(Ixvi) TQM & ISO both focuses on

- a) Customer
- b) Employee
- c) Both customer and employees
- d) None of these

(Ixvii) According to Deming, Quality problems are

- a) Due to management
- b) Due to method
- c) Due to machine
- d) All of these

(Ixviii) While setting Quality objective, \_\_\_\_\_ to be considered.

- a) Material quality
- b) Customer need

c) Market demand

d) All of these

(lxix) \_\_\_\_\_ helps organization reduce employee turnover and absenteeism.

a) Job design

b) Training & development

c) Wage revision

d) All of these

(lxx) CMM stands for

a) Capability maturity model

b) Capability monitoring model

c) Capability measuring model

d) Capability matching model