


Name:	
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
Online End Semester Examination, May/June 2021

Course: Operations and Materials Management	Semester: II
Program: BBA Core	Time: 03 hrs.
Course code: LSCM 2001	Max. Marks: 100

SECTION A

- 1. Each Question will carry 5 Marks**
- 2. Instruction: Complete the statement / Select the correct answer(s)**

S.No	Question	CO
Q 1	Fill in the blanks: <ol style="list-style-type: none"> a) The TBL (Triple Bottom Line) dimensions commonly called the three Ps: _____. b) Introduction, _____, Maturity, and _____ are the four stages of product life cycle (PLC). c) A _____ type of products is something you cannot touch them like tickets, banks, dry cleaners, amusement parks, trademarks, brands, etc. d) A combination of product and process layout is called as _____. e) The business function responsible for planning, coordinating, and controlling the resources needed to produce a company's products and services is called as _____. 	CO1
Q 2	Write the full form of the following: <ol style="list-style-type: none"> a) MRP II _____. b) MPS _____. c) SAP _____. d) MTS _____. e) TQM _____. 	CO1
Q 3	Attempt the following: <ol style="list-style-type: none"> a) Where you can use quasi-manufacturing technology? b) In quality assurance, HACCP stands for _____. c) How to measure the production service level? d) What is the concept of BEP? e) _____ concept is used when services and companies leave because of over concentration of industries. 	CO2
Q 4	True/False Statements: <ol style="list-style-type: none"> a) Rapid delivery focused on shorter time between order placement and delivery. b) Outsourcing refers to hiring out or subcontracting some of the work that a company needs to do. c) Value is the attractiveness of a product relative to its affordable quality. d) Inventory holding cost is associated with the chase type of aggregate planning. e) Routing indicates the loading and sequencing of the shop floor. 	CO3

Q 5	<p>Identify the name of contributor(s)/author(s) for following statements:</p> <p>a) “The process of planning and regulating the operations of that part of an enterprise, which is responsible for actual transformation of materials into finished products”.</p> <p>b) “A Gantt chart is a horizontal bar chart developed as a production control tool in year 1917”.</p> <p>c) “Quality and productivity applications from Japan: robotics, CAD-CAM and introduced PDCA cycle concept”.</p> <p>d) “The concept of Cause and Effect diagram is one of the most important tool out of seven quality tools and the father of Quality Control Circle (QCC)”.</p> <p>e) “Scientific management time study and work study developed; dividing planning and doing of work in year 1900”.</p>	CO4
Q 6	<p>In the six-sigma process, each letter of DMAIC signifies _____; _____; _____; _____; and _____.</p>	CO4

SECTION B

1. Each question will carry 10 marks
2. Instruction: Write short / brief notes in your own words only.

Q 7	<p>Complete the following diagram by filling up point 1 to 10.</p> <div style="text-align: center;"> <pre> graph LR subgraph INPUT I1[1. ___?] I2[2. ___?] I3[3. ___?] I4[4. ___?] end subgraph PROCESS P[The Transformation Process] end subgraph OUTPUT O1[A. Direct Output] O2[5. ___? 6. ___?] O3[B. Indirect Output] O4[7. ___? 8. ___? 9. ___?] end S[Suppliers Vendors] --> INPUT INPUT --> PROCESS PROCESS --> OUTPUT OUTPUT --> U[Users Customers] OUTPUT -.-> 10. Feedback INPUT </pre> </div>	CO1
Q 8	<p>What is the procedure for purchasing materials in your university “UPES”? Discuss the store functions.</p> <p align="center">OR</p> <p>Draw the diagram of typical warehouse layout. A factory uses annually 24,000 units of a raw material, which costs Rs. 1.25 per unit. Placing each order costs Rs. 25 and carrying cost is 6% per year of the average inventory. Find the economic order quantity</p>	CO2
Q 9	<p>Explain the use of LPP approach in aggregate planning. What is the procedure for conducting method study?</p>	CO3
Q 10	<p>Explain the concept of <i>Ergonomics</i> by giving an example of “UPES”. Name all seven types of wastes of lean manufacturing that an industry should eliminate with its use.</p>	CO4
Q 11	<p>How and where to use ISO 9000 and ISO 14000? Discuss briefly. What are the benefits of quality circles?</p> <p align="center">OR</p> <p>How control charts are different from run charts? Give examples in support of your answer.</p>	CO4

SECTION C

1. Each Question carries 20 Marks.

2. Instruction: Write long answer.

Q 12 a) The new healthcare facility is targeted to serve seven census tracts in Delhi. Two locations are considered for a new facility at (5.5, 4.5) and (7, 2). Find target areas center of gravity for the health care medical facility.

SNo.	Census tract	(x, y)	Population (l)
1	A	(2.5, 4.5)	2
2	B	(2.5, 2.5)	5
3	C	(5.5, 4.5)	10
4	D	(5, 2)	7
5	E	(8, 5)	10
6	F	(7, 2)	20
7	G	(9, 2.5)	14

b) A manufacturer of garments is actively considering 5 alternative locations for setting up its factory. The locations vary in terms of their advantages to the firm. Hence, the firm requires a method of identifying the most appropriate location. Based on a survey, the firm had arrived at 6 factors considered for the final state selection. The ratings of each factor on a scale of 1 to 100. Using below information to obtain a ranking of the alternative solutions.

Table-1: Factor ratings

SNo.	Factors	Rating
1	Availability of infrastructure	90
2	Size of the Market	60
3	Industrial relations climate	50
4	Tax benefits and concessions	30
5	Availability of cheap labor	30
6	Nearness to port	65

Table 2: Rating of each location against each factor

Factors	Location 1	Location 2	Location 3	Location 4	Location 5
1	20	40	60	35	55
2	30	30	40	60	80
3	80	30	50	60	50
4	80	20	10	20	20
5	70	70	45	50	50
6	20	40	90	50	60

CO2