

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)

CLASS: MBA
BRANCH: MBA

SEMESTER : III
SESSION : MO/2022

SUBJECT: MT533 OPERATIONS STRATEGY & SUPPLY CHAIN MANAGEMENT

TIME: 3:00 Hours

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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- Q.1(a) "Effective Operation strategy and its implementation may be differentiated within the supply chain in performance"- Do you agree? Justify the above statement with real-life business applications and give managerial significance. [5+5]
- Q.2(a) Define Supply Chain. Develop a Supply Chain diagram for **ANY ONE** of the following: [3+7]
- Milk processing Unit.
 - A Garment Manufacturing Unit.
 - A Coal Processing Unit.
- Q.3(a) Define Quality. How does the consumer's perspective of quality differ from the producer's? [5]
- Q.3(b) Discuss the different aspects of the GAP model and how quality of service is monitored through the GAP model? [5]

OR

The Blackberry Jeans Company produces denim jeans. The company wants to establish a *p-chart* to monitor the production process and maintain high quality. Blackberry believes that approximately 99.74% of the variability in the production process (corresponding to 3-sigma limits or $z = 3.00$) is random and thus should be within control limits, whereas 0.26% of the process variability is not random and suggests that the process is out of control. The company has taken 20 samples (one per day for 20 days), each containing 100 pairs of jeans and inspected them for defects, the result (data) of which are as follows:

Sample No.	Number of Defectives	Proportion Defectives
1	6	0.06
2	0	0.00
3	4	0.04
4	10	0.10
5	6	0.06
6	4	0.04
7	12	0.12
8	10	0.10
9	8	0.08
10	10	0.10
11	12	0.12
12	10	0.10
13	14	0.14
14	8	0.08
15	6	0.06
16	16	0.16
17	12	0.12
18	14	0.14
19	20	0.20
20	18	0.18
-	200	-

The proportion of defective in the population is not known. The company wants to construct a *p-chart* to determine when the production process is 'out of control'. Solve the above problem and give your recommendation.

- Q.4(a) Define News Vendor Model with managerial significance. [5]
Q.4(b) 'Effective Inventory Monitoring and Control have a significant benefit in Business Performance'....do you support this line? Validate with a suitable example. [5]

- Q.5(a) Discuss any *TWO* of the following in light of '*Effective Operations Strategy*': [5x2=10]
A. "Collaboration in Supply Chain is tough in real life implication" - justify.
B. Six Sigma and its implementation in business operation.
C. Supply Chain Risk
D. Strategic Fit Model of Supply Chain

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