

B.Tech DEGREE EXAMINATION, NOVEMBER 2023

Seventh Semester

18MBH463J - SERVICES SCIENCE AND SERVICE OPERATIONAL MANAGEMENT

(For the candidates admitted during the academic year 2020 - 2021 & 2021 - 2022)

Note:

- i. **Part - A** should be answered in OMR sheet within first 40 minutes and OMR sheet should be handed over to hall invigilator at the end of 40th minute.
- ii. **Part - B** and **Part - C** should be answered in answer booklet.

Time: 3 Hours

Max. Marks: 100

PART - A (20 × 1 = 20 Marks)

Marks BL CO

Answer all Questions

- | | | | | |
|----|--|---|---|---|
| 1. | Services are ideas and concepts and not products or things. This concept refers to -----nature of service. | 1 | 1 | 1 |
| | (A) Perish ability | | | |
| | (C) Intangibility | | | |
| | (B) Heterogeneity | | | |
| | (D) Simultaneity | | | |
| 2. | A ----- is a bundle of goods and services with information that is provided in some environment. | 1 | 1 | 1 |
| | (A) Delivery process | | | |
| | (C) Service package | | | |
| | (B) Service operations | | | |
| | (D) Service strategy | | | |
| 3. | The material purchased or consumed by the buyer forms the ----- | 1 | 2 | 1 |
| | (A) Facilitating goods | | | |
| | (C) Information | | | |
| | (B) Supporting facility | | | |
| | (D) Implicit services | | | |
| 4. | Division of labor is the operational law of ----- societies. | 1 | 1 | 1 |
| | (A) Pre-industrial | | | |
| | (C) Industrial | | | |
| | (B) Post-industrial | | | |
| | (D) None of these | | | |
| 5. | The service delivery system captured in a visual diagram is known as service ----- | 1 | 1 | 2 |
| | (A) Quality function | | | |
| | (C) Taxonomy | | | |
| | (B) Blueprinting | | | |
| | (D) Process flow | | | |
| 6. | ----- is the policy requirement by the management to select the next customer from the queue for service | 1 | 2 | 2 |
| | (A) Queue discipline | | | |
| | (C) Service process | | | |
| | (B) Queue configuration | | | |
| | (D) Arrival process | | | |
| 7. | ----- is the average time between completions of successive units | 1 | 1 | 2 |
| | (A) Bottleneck | | | |
| | (C) Throughput time | | | |
| | (B) Capacity utilization | | | |
| | (D) Cycle time | | | |
| 8. | 'Robust design of products' is the concept advocated by | 1 | 1 | 2 |
| | (A) Shigeo Shingo | | | |
| | (C) Deming | | | |
| | (B) Taguchi | | | |
| | (D) Ishikawa | | | |
| 9. | When only the service provider has access to the technology to facilitate the delivery of face to face service | 1 | 2 | 3 |
| | (A) Technology assisted service encounter | | | |
| | (C) Technology mediated service encounter | | | |
| | (B) Technology facilitated service encounter | | | |
| | (D) Technology generated service encounter | | | |

10. The quality element of service that represents the knowledge & courtesy of employees is (A) Reliability (C) Assurance	(B) Empathy (D) Tangibility	1	1	3
11. Which of the following is a managerial service design element? (A) Delivery system (C) Information	(B) Location (D) Facility design	1	2	3
12. A type of customer who wants interpersonal gratification from the service experiences called ----- customer (A) Economizing customer (C) Personalizing customer	(B) Ethical customer (D) Convenience customer	1	1	3
13. Which of the following is not a strategy to manage demand? (A) Offering price incentives (C) Segmenting demand	(B) Promoting off-peak demand (D) Scheduling work shifts	1	1	4
14. ----- is a comprehensive system that incorporates many of the strategies to manage demand (A) Project management (C) Market management	(B) Production management (D) Yield management	1	2	4
15. When customers are expected to perform a role in a service interaction the level of commitment results in a form of variability called (A) Effort (C) Capability	(B) Request (D) Arrival	1	2	4
16. ----- is an achievable level of output per unit time (A) Demand capacity (C) Level capacity	(B) Service capacity (D) None of these	1	1	4
17. In ----- method the nodes represent project activities and arrows indicate the activity sequence (A) Activity on arrow (C) Activity on Node	(B) Gantt Chart (D) None of these	1	1	5
18. Which of the following is not a characteristics of project? (A) Purpose (C) conflict	(B) Life cycle (D) routine tasks	1	1	5
19. The technical and administrative experience explains the ----- attribute of the project manager (A) Credibility (C) Leadership	(B) Sensitivity (D) Validity	1	2	5
20. When successful projects become institutionalized as part of a parent organization, then this method of project termination is known as ----- (A) Integration (C) starvation	(B) Addition (D) Extinction	1	1	5

PART - B (5 × 4 = 20 Marks)

Answer **any 5** Questions

Marks BL CO

21. What do you mean a service package? Briefly explain its features	4	2	1
22. Elucidate the four strategic service vision elements	4	2	2
23. Enumerate on the generic competitive strategies by Porter	4	1	1
24. Explain in detail the structural and managerial service design elements	4	1	2
25. What are the elements of a Service Encounter Triad? Illustrate with a neat sketch	4	3	3

26. Analyze the five different sources of customer induced variability in service operations.	4	4	4
27. Expound the steps involved in the project management process	4	1	5

PART - C (5 × 12 = 60 Marks)

Answer all Questions

Marks BL CO

28. (a) Explain in detail the four quadrants of the service process matrix (OR) (b) What are the five competitive forces propounded by Porter? Elucidate them	12	1	1
29. (a) Illustrate the concept of House of Quality and its role in Quality Function Deployment. (OR) (b) Give a detailed view of the taxonomy for service process design.	12	2	2
30. (a) Enumerate with an example the different types of role played by technology in service encounter (OR) (b) List the quality tools for analysis and problem solving. Explain any four of them.	12	3	3
31. (a) Explain the following demand managing strategies: (i) Offering price incentives (ii) Promoting off-peak demand (iii) Reservation systems and over-booking (OR) (b) What are the strategies used for managing capacity? Illustrate any two strategies in detail.	12	4	4
32. (a) List and explain the project monitoring techniques (OR) (b) Explain in detail the steps involved in estimating the activity duration and completion time distribution of a project.	12	3	5

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