

**BACHELOR OF BUSINESS
ADMINISTRATION (SERVICES
MANAGEMENT) (BBASM)
Term-End Examination
December, 2024**

BSM-016 : MANAGING SERVICE OPERATIONS-II

Time : 2 Hours

Maximum Marks : 50

Note : *All questions are compulsory.*

1. (a) State whether the following statements are True or False : 1×5=5
- (i) Full form of FCFS is First-Come First-Served.
- (ii) L_s is a notation for average number of customers in the system.
- (iii) The A/B/C notation is used to define the arrival time to which a queuing model belongs.

- (iv) Average customer is an important criterion for capacity waiting time planning.
- (v) Normal distribution has a closed-form expression for the cumulative distribution.
- (b) Fill in the blanks : $1 \times 5 = 5$
- (i) _____ is individual workstation where customer receives service.
- (ii) _____ happens when a customer leaves the queue without availing the service.
- (iii) In the case of a _____, people do not physically wait in a queue.
- (iv) _____ is a modification of the standard M/M/I model.
- (v) _____ simulation is a stochastic simulation technique.

2. Briefly explain any *five* of the following in about **100** words each : 2×5=10

- (a) Queuing System
- (b) Arrival Process
- (c) Elements of Service Capacity
- (d) Assumptions of M/M/I Model
- (e) Inadequate Waiting Area
- (f) Two- Stage Assembly Line
- (g) Customer Service Call Centre

3. Answer any *four* of the following in about **250** words each : 5×4=20

- (a) What is a queue ? How is a queue formed ?
Discuss the consequences of excessive waiting.
- (b) What is an Exponential Distribution ?
Discuss.
- (c) Explain the classification of Queuing Models and the factors which influence these models.
- (d) Briefly discuss the Simulation Methodology.

- (e) What is a Continuous Random Variable ?
Explain.
 - (f) Discuss the various components of service model simulation.
4. Answer any *one* of the following questions in about **500** words : 10×1=10
- (a) What role does average customer waiting time play in determining capacity ?
Discuss the criteria used in capacity planning.
 - (b) Discuss discrete event simulation techniques with the help of an example.

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