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**BSM-016**

**BBA (SM)**

**Term-End Examination**

**June, 2024**

**BSM-016 : MANAGING SERVICE OPERATION-II**

*Time : 2 Hours*

*Maximum Marks : 50*

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**Note :** *Attempt questions as directed.*

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Answer all question. Each question carries 1 mark.

$1 \times 10 = 10$

1. Fill in the blanks

- (a) The people wait in the physical form in a line to get the service of .....
- (b) ..... is a type of a mandatory screening process at the airports.
- (c) ..... establishes the overall level of productive resources required to

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implement a strategic business plan for an organisation.

- (d) ..... is an important step it falls between validation and running the model.
- (e) A ..... is a special random variable that has a uniform distribution between the values 0 and 1.

State whether the following statement are True or False :

- (f) The service facility consists of multi servers can be connected either in series or in parallel.
- (g) The triage is a policy established by management to select the next customer from the queue for service.
- (h) In the self service  $M/G/\infty$  Model, no arriving customer waits to be served.
- (i) In  $M/G/1$  model, the expected number of customers waiting for service relates

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directly to the variability of arrival times.

(j) The assumptions of waiting carts are lateral with time.

2. Answer any five questions in about 100 words. Each question carries 2 marks.  $2 \times 5 = 10$

- (a) What do you mean by the economics of waiting ?
- (b) Define queue configuration.
- (c) What role does arrival process play in queue management ?
- (d) List the various elements of Service Capacity ?
- (e) Distinguish between M/M/1 and M/M/C queuing model.
- (f) Define service level. How organization determine service level ?

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(g) Differentiate between discrete and continuous random variable.

(h) Define uniform distribution function.

3. Answer any four questions in about 250 words each. Each question carries five marks each.

$5 \times 4 = 20$

- (a) Explain customer-service in a call centre using service model simulation.
- (b) Explain briefly about the Monte Carlo simulation technique.
- (c) Discuss various parameter of finite-queue M/M/1 model
- (d) Describe various elements of service capacity planning.

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- (e) Define the arrival process. Describe how exponential distribution is used for the distribution of inter-arrival times ?
  - (f) Define queue disciplines. Discuss the importance of the priority rule in maintaining queue discipline.
4. Answer any one question in about 500 words.

$10 \times 1 = 10$

- (a) Enumerate the role of capacity planning for a service organisation. In what way the trade off between waiting cost and waiting time affects the planning ?
- (b) Explain the process of queue formation in a service organisation. How queue formation economically impacts the service firms ?

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