

QUIZ 15 VIII QUEUEING THEORY

Roll No.	Marks
----------	-------

1. The way in which queue is formed is known as
(a) Poisson pattern (b) arrival pattern (c) departure pattern (d) None []
2. FCFS means
(a) First College, First School (b) Foreign Committee, Foreign Secretary (c) First come, First Served (d) None []
3. FIFO means
(a) First In, First Out (b) First India, First Orissa (c) First Idea, First Objection (d) None []
4. A customer may not enter the queue due to its length. Then such a queue behavior is called
(a) balking (b) jockeying (c) reneging (d) None []
5. If a customer leaves the queue after waiting for some time in the queue, then such a queue behavior is called
(a) balking (b) jockeying (c) reneging (d) None []
6. If a customer joins another parallel queue from one queue, then such a queue behavior is called
(a) balking (b) jockeying (c) reneging (d) None []
7. The number of customers in the system, including the one that is served is denoted by
(a) λ (b) μ (c) n (d) m []
8. The number of customers in the system, excluding the one that is served is denoted by
(a) λ (b) μ (c) n (d) m []
9. The number of arrivals of the customers per unit time is denoted by
(a) λ (b) μ (c) n (d) m []
10. The number of services of the customers per unit time is denoted by
(a) λ (b) μ (c) n (d) m []
11. The formula for the traffic intensity of the system
(a) $\rho = \frac{\mu}{\lambda}$ (b) $\rho = \frac{\lambda}{\mu}$ (c) $\mu + \lambda$ (d) $\lambda - \mu$ []
12. The average number of customers in the system (including the one that is served) is denoted by
(a) $L_s = E(n)$ (b) $L_q = E(m)$ (c) $\rho = \frac{\lambda}{\mu}$ (d) $\rho = \frac{\mu}{\lambda}$ []
13. A queueing model in which only arrivals are counted and no departure takes place is called
(a) pure birth process (b) pure death process (c) Both (a) and (b) are correct (d) None []

14. A queueing model in which only departures are counted and no arrival takes place is called
(a) pure birth process (b) pure death process (c) Both (a) and (b) are correct (d) None []

15. In a pure birth and death process, an arrival is called as
(a) death (b) birth (c) Both (a) and (b) are correct (d) None []

16. In a pure birth and death process, a departure is called as
(a) death (b) birth (c) Both (a) and (b) are correct (d) None []

17. In (M/M/1) : (∞ /FIFO) model, the probability that there are n customers in the system =
(a) ρ^n (b) $\frac{\rho}{1-\rho}$ (c) $\rho^n(1-\rho)$ (d) $\frac{\lambda^2}{\mu(\mu-\lambda)}$ []

18. In (M/M/1) : (∞ /FIFO) model, the probability that there are n or more customers in the system =
(a) ρ^n (b) $\frac{\rho}{1-\rho}$ (c) $\rho^n(1-\rho)$ (d) $\frac{\lambda^2}{\mu(\mu-\lambda)}$ []

19. In (M/M/1) : (∞ /FIFO) model, the average number of customers in the system =
(a) ρ^n (b) $\frac{\rho}{1-\rho}$ (c) $\rho^n(1-\rho)$ (d) $\frac{\lambda^2}{\mu(\mu-\lambda)}$ []

20. In (M/M/1) : (∞ /FIFO) model, the average queue length =
(a) ρ^n (b) $\frac{\rho}{1-\rho}$ (c) $\rho^n(1-\rho)$ (d) $\frac{\lambda^2}{\mu(\mu-\lambda)}$ []