

1. Which parameter represents the arrival rate in a queueing model with Poisson input?

- a) λ
- b) μ
- c) ρ
- d) $\lambda\mu$

Answer: a) λ

Explanation: In queueing models with Poisson input, λ represents the arrival rate, typically measured in arrivals per unit time.

2. What distribution is commonly used to model service times in queueing systems with exponential service?

- a) Poisson
- b) Binomial
- c) Exponential
- d) Normal

Answer: c) Exponential

Explanation: Exponential distribution is commonly used to model service times in queueing systems with exponential service, where the service times are memoryless.

3. In a single-server queueing model, what happens when the arrival rate exceeds the service rate?

- a) The system becomes stable
- b) The queue gradually empties

- c) The queue grows indefinitely
- d) The waiting time decreases

Answer: c) The queue grows indefinitely

Explanation: When the arrival rate exceeds the service rate in a single-server queueing model, the queue grows indefinitely as arrivals outpace service.

4. Which parameter represents the utilization of a queueing system?

- a) λ
- b) μ
- c) ρ
- d) L

Answer: c) ρ

Explanation: The utilization (ρ) of a queueing system is defined as the ratio of the average arrival rate (λ) to the average service rate (μ).

5. What type of queueing model assumes an infinite population from which customers arrive?

- a) M/M/1
- b) M/M/c
- c) M/G/1
- d) M/D/1

Answer: a) M/M/1

Explanation: In the M/M/1 queueing model, it is assumed that the population from which customers arrive is infinite.

6. In a multi-server queueing model, what parameter determines the number of servers available to serve customers?

- a) λ
- b) μ
- c) c
- d) L

Answer: c) c

Explanation: In multi-server queueing models, ' c ' represents the number of servers available to serve customers simultaneously.

7. What is the inter-arrival time distribution commonly assumed in queueing models with Poisson input?

- a) Uniform
- b) Exponential
- c) Normal
- d) Binomial

Answer: b) Exponential

Explanation: Queueing models with Poisson input commonly assume an exponential distribution for inter-arrival times.

8. Which type of service assumes a constant rate of service in a queueing system?

- a) Exponential service
- b) Poisson service

- c) Constant service
- d) Variable service

Answer: c) Constant service

Explanation: Constant service assumes a fixed rate of service in a queueing system, regardless of the number of customers in the system.

9. What parameter represents the average number of customers in a queueing system in steady state?

- a) L
- b) λ
- c) μ
- d) ρ

Answer: a) L

Explanation: ' L ' represents the average number of customers in a queueing system in steady state, also known as the average number of customers in the queue.

10. In queueing system simulation, what does the term "warm-up period" refer to?

- a) The period during which servers are not operational
- b) The initial period of simulation to stabilize system behavior
- c) The period when customer arrivals are at their peak
- d) The time taken for a customer to complete service

Answer: b) The initial period of simulation to stabilize system behavior

Explanation: The warm-up period in queueing system simulation refers to the initial period of

simulation where system behavior stabilizes before collecting meaningful performance metrics.

Related posts:

1. Stones, Brick, Mortar and Concrete MCQs
2. Timber ,Glass , Steel and Aluminium MCQS
3. Flooring , Roofing ,Plumbing and Sanitary Material MCQS
4. Paints, Enamels and Varnishes MCQs
5. Miscellaneous ConstructionMaterials MCQs
6. Surveying & Levelling MCQS
7. Theodolite Traversing MCQs
8. Tacheometry MCQS
9. Curves MCQS
10. Hydrographic Survey MCQs
11. Drawing of Building Elements MCQS
12. Building Planning MCQS
13. Building Services MCQs
14. Architectural Principles MCQs
15. Town Planning & Perspective Drawing MCQs
16. Simple Stress and Strains MCQs
17. Bending and Shearing Stresses MCQs
18. Beam Deflection Methods MCQs
19. Columns and Struts MCQs
20. Torsion of Shafts MCQs
21. Review of Fluid Properties MCQs
22. Kinematics of Flow MCQs

23. Dynamics of Flow MCQs
24. Laminar Flow MCQs
25. Fluid Mechanics MCQs
26. Highway Engineering MCQs
27. Bituminous & Cement Concrete Payments MCQS
28. Transportation Engineering MCQs
29. Airport Planning and Geometrical Elements MCQs
30. Airport, Obstructions, Lightning & Traffic control MCQs
31. Preliminary and detailed investigation methods MCQs
32. Construction equipments MCQs
33. Contracts MCQs
34. Specifications & Public Works Accounts MCQs
35. Site Organization & Systems Approach to Planning MCQs
36. Construction Estimation MCQs
37. Rate Analysis MCQs
38. Detailed Estimates MCQs
39. Cost of Works MCQS
40. Valuation MCQS
41. Marine Construction MCQs
42. Harbour Planning MCQs
43. Natural Phenomena MCQS
44. Marine Structures MCQs
45. Docks and Locks MCQS
46. Urban Planning MCQs
47. Urban Planning MCQs: Sustainability, Finance, and Emerging Concepts
48. Urban Planning MCQs
49. Traffic transportation systems MCQs

- 50. Development plans MCQS
- 51. Remote Sensing MCQs
- 52. Remote Sensing Platforms and Sensors MCQS
- 53. Geographic Information System MCQS
- 54. Data Models mCQs
- 55. Integrated Applications of Remote sensing and GIS MCQs
- 56. Renewable Energy MCQs
- 57. Renewable Energy Systems Overview MCQ
- 58. Renewable Energy MCQs
- 59. Alternative Energy Sources MCQs
- 60. Electric Energy Conservation MCQs
- 61. Entrepreneurship MCQs
- 62. Motivation MCQS
- 63. Small Business Setup MCQs
- 64. Finance and Accounting MCQs
- 65. Entrepreneurial Sickness and Small Business Growth MCQs
- 66. Design features and construction of Foundations MCQs
- 67. Formwork and Temporary structures MCQs
- 68. Masonry and walls MCQS
- 69. Floor and Roof Construction MCQs
- 70. Earthquake-Resistant Building MCQs
- 71. Virtual work and Energy Principles MCQS
- 72. Indeterminate Structures-I MCQS
- 73. Indeterminate Structures - II MCQs
- 74. V Arches and Suspension Cables MCQS
- 75. Rolling loads and Influence Lines MCQS
- 76. Railway Track Construction MCQs

- 77. Railway Track Design and Signaling MCQs
- 78. Bridge Construction Essentials MCQs
- 79. Bridge Construction MCQs
- 80. Tunnels MCQS
- 81. Geology Earth's Processes and Phenomena MCQs
- 82. Mineralogy and crystallography MCQs
- 83. Petrology MCQs
- 84. Structural geology MCQs
- 85. Geology, Remote Sensing, and GIS MCQs
- 86. Waste water Treatment Operations MCQs
- 87. Biological Treatment of waste-water MCQS
- 88. Advanced Waste-water treatment MCQS
- 89. Introduction of Air pollution MCQS
- 90. Air pollution chemistry MCQs
- 91. Undamped Single Degree of Freedom System MCQS
- 92. Damped Single Degree of Freedom System MCQ
- 93. Response to harmonic and periodic vibrations MCQS
- 94. Response to Arbitrary, Step, and Pulse Excitation MCQS
- 95. Multi Degree of Freedom System MCQS
- 96. Structural Engineering MCQs
- 97. Building Services MCQs
- 98. Lift & Escalator MCQS
- 99. Fire-Fighting MCQs
- 100. Acoustics and sound insulation and HVAC system MCQS
- 101. Miscellaneous Services MCQS
- 102. Basic Principles of Structural Design MCQs
- 103. Design of Beams MCQs

- 104. Design of Slabs MCQS
- 105. Columns & Footings MCQs
- 106. Staircases MCQs
- 107. Water Resources MCQs
- 108. Water Supply Systems MCQs
- 109. Water Treatment methods MCQs
- 110. Sewerage Systems MCQS
- 111. Wastewater Analysis & Disposal MCQs
- 112. Irrigation water requirement and Soil-Water-Crop relationship MCQS
- 113. Ground Water and Well irrigation MCQs
- 114. Hydrology MCQs
- 115. Canals and Structures MCQs
- 116. Floods MCQS
- 117. Prefabrication in Construction MCQs
- 118. Prefabricated Construction MCQs
- 119. Design Principles MCQs
- 120. Structural Joint MCQs
- 121. Design of abnormal load MCQS
- 122. Advance Pavement Design MCQs
- 123. Flexible Pavements MCQS
- 124. Rigid Pavements MCQS
- 125. Rigid pavement design MCQs
- 126. Evaluation and Strengthening of Existing Pavements MCQS
- 127. Cost Effective & ECO-Friendly Structures MCQs
- 128. Cost effective construction techniques and equipments MCQs
- 129. Cost effective sanitation MCQS
- 130. Low Cost Road Construction MCQs

- 131. Cost analysis and comparison MCQ
- 132. Turbulent flow MCQS
- 133. Uniform flow in open channels MCQs
- 134. Non uniform flow in open channels MCQs
- 135. Forces on immersed bodies MCQs
- 136. Fluid Machines MCQs
- 137. Intellectual Property Rights MCQs
- 138. Copyright MCQs
- 139. Patents MCQs
- 140. Trade Marks, Designs & GI MCQs
- 141. Contemporary Issues & Enforcement of IPR MCQs
- 142. Concept of EIA MCQs
- 143. Methods of Impact Identification MCQs
- 144. Impact analysis MCQs
- 145. Preparation of written documentation MCQs
- 146. Public Participation in Environmental Decision making MCQs
- 147. Linear Models MCQs
- 148. Transportation Models And Network Models MCQs
- 149. Inventory Models MCQs
- 150. Decision Models MCQs
- 151. Basis of Structural Design and Connection Design MCQS
- 152. Design of Compression and Tension Members MCQs
- 153. Design of Flexural Members MCQs
- 154. Design of Columns and Column Bases MCQs
- 155. Design of Industrial Buildings MCQS
- 156. Hydrological Cycle mCQs
- 157. Hydrological Measurement MCQs

- 158. Groundwater and Well Dynamics MCQs
- 159. Hydrology MCQs
- 160. Hydrology MCQs
- 161. Selection of foundation and Sub-soil exploration/investigation MCQs
- 162. Shallow Foundation MCQs
- 163. Pile foundations MCqs
- 164. Foundations on problematic soil & Introduction to Geosynthetics MCQs
- 165. Retaining Walls and Earth Pressure MCQs
- 166. Types of Bridge Super Structures MCQs
- 167. Design of R.C. Bridge MCQs
- 168. Design of Steel Bridges MCQs
- 169. Pier, Abutment and Wing Walls MCQs
- 170. Foundations and Bearings MCQs
- 171. Engineering Seismology MCQS
- 172. Response Spectrum MCQs
- 173. Aseismic Structural Modelling MCQS
- 174. Design of structure for earthquake resistance MCQS
- 175. Seismic control of structures MCQs
- 176. Introduction to Artificial Intelligence MCQs
- 177. Various types of production systems and search techniques MCQs
- 178. Knowledge Representation and Probabilistic Reasoning MCQS
- 179. Game playing techniques MCQs
- 180. Introduction to learning ,ANN MCQs
- 181. Concrete Structure MCQs
- 182. Damage Assessment MCQs
- 183. Influence on Serviceability and Durability MCQs
- 184. Maintenance and Retrofitting Techniques MCQs

- 185. Materials for Repair and Retrofitting MCQs
- 186. Paradigm Shift in Water Management MCQS
- 187. Sustainable Water Resources Management MCQs
- 188. Integrated Water Resources Management (IWRM) Approach MCQs
- 189. Surface and Subsurface Water Systems MCQS
- 190. Conventional and Non-conventional Techniques for Water Security MCQs
- 191. Unix/Linux MCQs
- 192. Biodiversity and its conservation MCQs
- 193. Frequency domain representation of signal mcqs
- 194. State Space & Control Systems MCQs
- 195. The z-Transformmcqs
- 196. Propagation of radio waves mcqs
- 197. Satellite Systems and Orbital Mechanics MCQs
- 198. Embedded System Architecture mcqs
- 199. Rectifiers and Thyristors MCQs
- 200. CMOS Processing Technology MCQs