- 1. Which of the following best describes the Process Concept?
- a) It refers to the execution of a program instance
- b) It refers to the physical execution of a program
- c) It refers to the storage of a program in the memory
- d) It refers to the compilation of a program

Answer: a) It refers to the execution of a program instance

Explanation: The Process Concept pertains to the execution of an instance of a program, including its associated resources like memory, CPU time, and I/O resources.

- 2. What does a scheduler do in an operating system?
- a) Allocates memory to processes
- b) Allocates CPU to processes
- c) Allocates disk space to processes
- d) Allocates network bandwidth to processes

Answer: b) Allocates CPU to processes

Explanation: The scheduler in an operating system allocates CPU time to various processes, determining which process gets to execute and when.

- 3. Which of the following is not a type of scheduler in operating systems?
- a) Long-term scheduler
- b) Medium-term scheduler
- c) Short-term scheduler
- d) Parallel scheduler

Answer: d) Parallel scheduler

Explanation: Parallel scheduler is not a standard type of scheduler. The commonly known types are long-term, medium-term, and short-term schedulers.

- 4. What does the Process State Diagram depict?
- a) The transitions between different process states
- b) The resources allocated to each process
- c) The physical layout of processes in memory
- d) The hierarchy of processes in an operating system

Answer: a) The transitions between different process states Explanation: Process State Diagram illustrates the various states a process goes through during its lifecycle and the transitions between these states.

- 5. Which scheduling algorithm provides guaranteed response time for interactive tasks?
- a) Round Robin
- b) First-Come, First-Served (FCFS)
- c) Shortest Job Next (SJN)
- d) Shortest Remaining Time (SRT)

Answer: a) Round Robin

Explanation: Round Robin scheduling ensures fairness by providing a guaranteed response time for interactive tasks, as it allocates a fixed time slice to each process in a cyclic manner.

- 6. What is the purpose of algorithm evaluation in scheduling?
- a) To determine the popularity of an algorithm
- b) To assess the efficiency and effectiveness of scheduling algorithms
- c) To calculate the execution time of processes

d) To optimize memory allocation

Answer: b) To assess the efficiency and effectiveness of scheduling algorithms Explanation: Algorithm evaluation in scheduling aims to analyze the performance metrics of different scheduling algorithms to determine their efficiency and effectiveness in various scenarios.

7. Which system call is used for creating a new process in Unix-like operating systems?

- a) fork()
- b) create()
- c) spawn()
- d) exec()

Answer: a) fork()

Explanation: The fork() system call in Unix-like operating systems is used to create a new process, which is a duplicate of the calling process.

- 8. In multiple processor scheduling, what is the objective of load balancing?
- a) To overload processors for faster execution
- b) To underutilize processors for better efficiency
- c) To distribute the workload evenly across all processors
- d) To prioritize certain processes over others

Answer: c) To distribute the workload evenly across all processors

Explanation: Load balancing in multiple processor scheduling aims to evenly distribute the workload across all available processors to optimize resource utilization and improve overall system performance.

- 9. What is the primary advantage of using threads in programming?
- a) Threads reduce the complexity of the code
- b) Threads allow parallel execution of tasks
- c) Threads increase the size of the executable file
- d) Threads decrease the responsiveness of the program

Answer: b) Threads allow parallel execution of tasks

Explanation: Threads enable parallelism within a program, allowing multiple tasks to be executed concurrently, which can enhance performance and responsiveness.

- 10. Which scheduling algorithm is prone to starvation?
- a) Round Robin
- b) First-Come, First-Served (FCFS)
- c) Shortest Job Next (SJN)
- d) Priority Scheduling

Answer: b) First-Come, First-Served (FCFS)

Explanation: FCFS scheduling algorithm is prone to starvation, especially for long-running processes as newer processes are continuously being added to the queue.

- 11. Which scheduling algorithm may suffer from convoy effect?
- a) Round Robin
- b) First-Come, First-Served (FCFS)
- c) Shortest Job Next (SJN)
- d) Priority Scheduling

Answer: b) First-Come, First-Served (FCFS)

Explanation: FCFS scheduling algorithm may suffer from the convoy effect, where shorter processes get blocked behind longer ones, leading to inefficient resource utilization.

12. Which type of scheduler is responsible for swapping processes in and out of memory?

- a) Long-term scheduler
- b) Medium-term scheduler
- c) Short-term scheduler
- d) Parallel scheduler

Answer: b) Medium-term scheduler

Explanation: The medium-term scheduler, also known as the swapping scheduler, is responsible for swapping processes in and out of memory to manage the system's memory resources efficiently.

13. Which scheduling algorithm is optimal in terms of average waiting time for a given set of processes?

- a) First-Come, First-Served (FCFS)
- b) Shortest Job Next (SJN)
- c) Shortest Remaining Time (SRT)
- d) Shortest Time-to-Completion (STC)

Answer: b) Shortest Job Next (SJN)

Explanation: Shortest Job Next (SJN) scheduling algorithm minimizes the average waiting time for a given set of processes by selecting the shortest job next for execution.

14. Which system call is used to terminate a process in Unix-like operating systems?a) end()

b) terminate()

c) exit()

d) kill()

Answer: c) exit()

Explanation: The exit() system call in Unix-like operating systems is used to terminate a process and release its resources back to the system.

- 15. Which scheduling algorithm provides fairness in CPU allocation?
- a) First-Come, First-Served (FCFS)
- b) Shortest Job Next (SJN)
- c) Shortest Remaining Time (SRT)
- d) Lottery Scheduling

Answer: d) Lottery Scheduling

Explanation: Lottery Scheduling provides fairness in CPU allocation by assigning each process a proportional number of lottery tickets, ensuring a fair chance of CPU access.

- 16. What is the primary role of a short-term scheduler?
- a) To allocate memory to processes
- b) To swap processes in and out of memory
- c) To manage the execution of processes on CPU
- d) To schedule processes for disk operations

Answer: c) To manage the execution of processes on CPU

Explanation: The short-term scheduler, also known as the CPU scheduler, is responsible for selecting which process from the ready queue will execute next on the CPU.

- 17. Which scheduling algorithm is not preemptive?
- a) Round Robin
- b) First-Come, First-Served (FCFS)
- c) Shortest Job Next (SJN)
- d) Priority Scheduling

Answer: b) First-Come, First-Served (FCFS) Explanation: First-Come, First-Served (FCFS) scheduling algorithm is non-preemptive, meaning once

a process starts execution, it cannot be interrupted until it completes or voluntarily yields the CPU.

- 18. What is the main advantage of preemptive scheduling over non-preemptive scheduling?
- a) Preemptive scheduling reduces context switching overhead
- b) Preemptive scheduling ensures fairness in CPU allocation
- c) Preemptive scheduling improves system responsiveness
- d) Preemptive scheduling simplifies process management

Answer: c) Preemptive scheduling improves system responsiveness

Explanation: Preemptive scheduling improves system responsiveness by allowing higherpriority tasks to interrupt lower-priority ones, thus reducing the chances of delays in critical operations.

19. Which system call is used to suspend execution of a thread in POSIX threads?

- a) yield()
- b) wait()

c) suspend()

d) pthread_suspend()

Answer: d) pthread_suspend()

Explanation: In POSIX threads, the pthread_suspend() function is used to suspend the execution of a thread until it is resumed by another thread.

20. Which scheduling algorithm provides the lowest average turnaround time for a given set of processes?

- a) First-Come, First-Served (FCFS)
- b) Shortest Job Next (SJN)
- c) Shortest Remaining Time (SRT)
- d) Round Robin

Answer: b) Shortest Job Next (SJN)

Explanation: Shortest Job Next (SJN) scheduling algorithm minimizes the average turnaround time by executing the shortest job first, thereby reducing the waiting time for all processes in the queue.

Related posts:

- 1. Introduction to Operating Systems MCQ
- 2. File Systems MCQ
- 3. Memory Management MCQ
- 4. Input / Output MCQ
- 5. Operating Systems and Concurrency
- 6. Introduction to Energy Science MCQ
- 7. Ecosystems MCQ

- 8. Biodiversity and its conservation MCQ
- 9. Environmental Pollution mcq
- 10. Social Issues and the Environment MCQ
- 11. Field work mcq
- 12. Discrete Structure MCQ
- 13. Set Theory, Relation, and Function MCQ
- 14. Propositional Logic and Finite State Machines MCQ
- 15. Graph Theory and Combinatorics MCQ
- 16. Relational algebra, Functions and graph theory MCQ
- 17. Data Structure MCQ
- 18. Stacks MCQ
- 19. TREE MCQ
- 20. Graphs MCQ
- 21. Sorting MCQ
- 22. Digital Systems MCQ
- 23. Combinational Logic MCQ
- 24. Sequential logic MCQ
- 25. Analog/Digital Conversion, Logic Gates, Multivibrators, and IC 555 MCQ
- 26. Introduction to Digital Communication MCQ
- 27. Introduction to Object Oriented Thinking & Object Oriented Programming MCQ
- 28. Encapsulation and Data Abstraction MCQ
- 29. MCQ
- 30. Relationships Inheritance MCQ
- 31. Polymorphism MCQ
- 32. Library Management System MCQ
- 33. Numerical Methods MCQ
- 34. Transform Calculus MCQ

- 35. Concept of Probability MCQ
- 36. Algorithms, Designing MCQ
- 37. Study of Greedy strategy MCQ
- 38. Concept of dynamic programming MCQ
- 39. Algorithmic Problem MCQ
- 40. Trees, Graphs, and NP-Completeness MCQ
- 41. The Software Product and Software Process MCQ
- 42. Software Design MCQ
- 43. Software Analysis and Testing MCQ
- 44. Software Maintenance & Software Project Measurement MCQ
- 45. Computer Architecture, Design, and Memory Technologies MCQ
- 46. Basic Structure of Computer MCQ
- 47. Computer Arithmetic MCQ
- 48. I/O Organization MCQ
- 49. Memory Organization MCQ
- 50. Multiprocessors MCQ
- 51. Software Development and Architecture MCQ
- 52. Software architecture models MCQ
- 53. Software architecture implementation technologies MCQ
- 54. Software Architecture analysis and design MCQ
- 55. Software Architecture documentation MCQ
- 56. Introduction to Computational Intelligence MCQ
- 57. Fuzzy Systems MCQ
- 58. Genetic Algorithms MCQ
- 59. Rough Set Theory MCQ
- 60. Introduction to Swarm Intelligence, Swarm Intelligence Techniques MCQ
- 61. Neural Network History and Architectures MCQ

- 62. Autoencoder MCQ
- 63. Deep Learning MCQs
- 64. RL & Bandit Algorithms MCQs
- 65. RL Techniques MCQs
- 66. Review of traditional networks MCQ
- 67. Study of traditional routing and transport MCQ
- 68. Wireless LAN MCQ
- 69. Mobile transport layer MCQ
- 70. Big Data MCQ
- 71. Hadoop and Related Concepts MCQ
- 72. Hive, Pig, and ETL Processing MCQ
- 73. NoSQL MCQs Concepts, Variations, and MongoDB
- 74. Mining social Network Graphs MCQ
- 75. Mathematical Background for Cryptography MCQ
- 76. Cryptography MCQ
- 77. Cryptographic MCQs
- 78. Information Security MCQ
- 79. Cryptography and Information Security Tools MCQ
- 80. Data Warehousing MCQ
- 81. OLAP Systems MCQ
- 82. Introduction to Data& Data Mining MCQ
- 83. Supervised Learning MCQ
- 84. Clustering & Association Rule mining MCQ
- 85. Fundamentals of Agile Process MCQ
- 86. Agile Projects MCQs
- 87. Introduction to Scrum MCQs
- 88. Introduction to Extreme Programming (XP) MCQs

- 89. Agile Software Design and Development MCQs
- 90. Machine Learning Fundamentals MCQs
- 91. Neural Network MCQs
- 92. CNNs MCQ
- 93. Reinforcement Learning and Sequential Models MCQs
- 94. Machine Learning in ImageNet Competition mcq
- 95. Computer Network MCQ
- 96. Data Link Layer MCQ
- 97. MAC Sub layer MCQ
- 98. Network Layer MCQ
- 99. Transport Layer MCQ
- 100. Raster Scan Displays MCQs
- 101. 3-D Transformations MCQs
- 102. Visualization MCQ
- 103. Multimedia MCQs
- 104. Introduction to compiling & Lexical Analysis MCQs
- 105. Syntax Analysis & Syntax Directed Translation MCQs
- 106. Type Checking & Run Time Environment MCQs
- 107. Code Generation MCQs
- 108. Code Optimization MCQs
- 109. INTRODUCTION Knowledge Management MCQs
- 110. Organization and Knowledge Management MCQs
- 111. Telecommunications and Networks in Knowledge Management MCQs
- 112. Components of a Knowledge Strategy MCQs
- 113. Advanced topics and case studies in knowledge management MCQs
- 114. Conventional Software Management MCQs
- 115. Software Management Process MCQs

- 116. Software Management Disciplines MCQs
- 117. Rural Management MCQs
- 118. Human Resource Management for rural India MCQs
- 119. Management of Rural Financing MCQs
- 120. Research Methodology MCQs
- 121. Research Methodology MCQs
- 122. IoT MCQs
- 123. Sensors and Actuators MCQs
- 124. IoT MCQs: Basics, Components, Protocols, and Applications
- 125. MCQs on IoT Protocols
- 126. IoT MCQs
- 127. INTRODUCTION Block Chain Technologies MCQs
- 128. Understanding Block chain with Crypto currency MCQs
- 129. Understanding Block chain for Enterprises MCQs
- 130. Enterprise application of Block chain MCQs
- 131. Block chain application development MCQs
- 132. MCQs on Service Oriented Architecture, Web Services, and Cloud Computing
- 133. Utility Computing, Elastic Computing, Ajax MCQs
- 134. Data in the cloud MCQs
- 135. Cloud Security MCQs
- 136. Issues in cloud computinG MCQs
- 137. Introduction to modern processors MCQs
- 138. Data access optimizations MCQs
- 139. Parallel Computing MCQs
- 140. Efficient Open MP Programming MCQs
- 141. Distributed Memory parallel programming with MPI MCQs
- 142. Review of Object Oriented Concepts and Principles MCQs.

- 143. Introduction to RUP MCQs.
- 144. UML and OO Analysis MCQs
- 145. Object Oriented Design MCQs
- 146. Object Oriented Testing MCQs
- 147. CVIP Basics MCQs
- 148. Image Representation and Description MCQs
- 149. Region Analysis MCQs
- 150. Facet Model Recognition MCQs
- 151. Knowledge Based Vision MCQs
- 152. Game Design and Semiotics MCQs
- 153. Systems and Interactivity Understanding Choices and Dynamics MCQs
- 154. Game Rules Overview Concepts and Case Studies MCQs
- 155. IoT Essentials MCQs
- 156. Sensor and Actuator MCQs
- 157. IoT Networking & Technologies MCQs
- 158. MQTT, CoAP, XMPP, AMQP MCQs
- 159. IoT MCQs: Platforms, Security, and Case Studies
- 160. MCQs on Innovation and Entrepreneurship
- 161. Innovation Management MCQs
- 162. Stage Gate Method & Open Innovation MCQs
- 163. Innovation in Business: MCQs
- 164. Automata Theory MCQs
- 165. Finite Automata MCQs
- 166. Grammars MCQs
- 167. Push down Automata MCQs
- 168. Turing Machine MCQs
- 169. Database Management System (DBMS) MCQs

- 170. Relational Data models MCQs
- 171. Data Base Design MCQs
- 172. Transaction Processing Concepts MCQs
- 173. Control Techniques MCQs
- 174. DBMS Concepts & SQL Essentials MCQs
- 175. DESCRIPTIVE STATISTICS MCQs
- 176. INTRODUCTION TO BIG DATA MCQ
- 177. BIG DATA TECHNOLOGIES MCQs
- 178. PROCESSING BIG DATA MCQs
- 179. HADOOP MAPREDUCE MCQs
- 180. BIG DATA TOOLS AND TECHNIQUES MCQs
- 181. Pattern Recognition MCQs
- 182. Classification Algorithms MCQs
- 183. Pattern Recognition and Clustering MCQs
- 184. Feature Extraction & Selection Concepts and Algorithms MCQs
- 185. Pattern Recognition MCQs
- 186. Understanding Cybercrime Types and Challenges MCQs
- 187. Cybercrime MCQs
- 188. Cyber Crime and Criminal justice MCQs
- 189. Electronic Evidence MCQs
- 190. DC DC Converters MCQS
- 191. RF Network Analysis & Measurement MCQs
- 192. Nanoscale Semiconductor Physics MCQs
- 193. Types of Noncochannel interference MCQS
- 194. Probability and Random Variable MCQs
- 195. Optical networks and amplifiers MCQS
- 196. Wireless Sensor Networks MCQS

- 197. Speech Processing Fundamentals MCQs
- 198. Signal and Function Generators, Displays MCQS
- 199. Diode Circuits & Power Supply MCQs
- 200. Two port parameters MCQS