

Roll. No.

Question Booklet Number

O.M.R. Serial No.

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400042

BCA (SEM.-IV) (NON-NEP) EXAMINATION, 2024
COMPUTER APPLICATION
(Operating System)

[BCA-402 (N)]

Paper Code							
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Question Booklet
Series
B

Max. Marks : 75

Time : 1 : 30 Hours

Instructions to the Examinee :

1. Do not open the booklet unless you are asked to do so.
2. The booklet contains 100 questions. Examinee is required to answer 75 questions in the OMR Answer-Sheet provided and not in the question booklet. All questions carry equal marks.
3. Examine the Booklet and the OMR Answer-Sheet very carefully before you proceed. Faulty question booklet due to missing or duplicate pages/questions or having any other discrepancy should be got immediately replaced.
4. Four alternative answers are mentioned for each question as - A, B, C & D in the booklet. The candidate has to choose the correct / answer and mark the same in the OMR Answer-Sheet as per the direction :

(Remaining instructions on last page)

परीक्षार्थियों के लिए निर्देश :

1. प्रश्न-पुस्तिका को तब तक न खोलें जब तक आप कहा न जाए।
2. प्रश्न-पुस्तिका में 100 प्रश्न हैं। परीक्षार्थी को 75 प्रश्नों को केवल दी गई OMR आन्सर-शीट पर ही हल करना है, प्रश्न-पुस्तिका पर नहीं। सभी प्रश्नों के अंक समान हैं।
3. प्रश्नों के उत्तर अंकित करने से पूर्व प्रश्न-पुस्तिका तथा OMR आन्सर-शीट को सावधानीपूर्वक देख लें। दोषपूर्ण प्रश्न-पुस्तिका जिसमें कुछ भाग छपने से छूट गए हों या प्रश्न एक से अधिक बार छप गए हों या उसमें किसी अन्य प्रकार की कमी हो, उसे तुरन्त बदल लें।
4. प्रश्न-पुस्तिका में प्रत्येक प्रश्न के चार सम्भावित उत्तर- A, B, C एवं D हैं। परीक्षार्थी को उन चारों विकल्पों में से सही उत्तर छाँटना है। उत्तर को OMR उत्तर-पत्रक में सम्बन्धित प्रश्न संख्या में निम्न प्रकार भरना है :

(शेष निर्देश अन्तिम पृष्ठ पर)

SE

1. Which is not the function of the Operating System?
 - (A) Memory management
 - (B) Disk management
 - (C) Application management
 - (D) Virus Protection
2. When a process is in a "Blocked" state waiting for some I/O service. When the service is completed, it goes to the:
 - (A) Terminated state
 - (B) Suspended state
 - (C) Running state
 - (D) Ready state
3. A deadlock avoidance algorithm dynamically examines the _____ to ensure that a circular wait condition can never exist.
 - (A) Operating system
 - (B) Resources
 - (C) System storage state
 - (D) Resource allocation state
4. To access the services of the operating system, the interface is provided by the:
 - (A) Library
 - (B) API
 - (C) System calls
 - (D) Assembly instructions
5. _____ is the concept in which a process is copied into the main memory from the secondary memory according to the requirement.
6. The operating system is responsible for :
 - (A) Paging
 - (B) Demand paging
 - (C) Segmentation
 - (D) Swapping
7. Network operating system runs on both server and every system in the network :
 - (A) True
 - (B) False
8. To access the of the operating system, the interface is provided by the system calls.
 - (A) Library
 - (B) Assembly instructions
 - (C) Services
 - (D) API
9. CPU scheduling is the basis of multi-programming operating systems.
 - (A) True
 - (B) False
10. Operating systems provides a layer, user friendly interface.
 - (A) True
 - (B) False

11. Program becomes process when file loaded into memory.
- (A) Object
(B) Executable
(C) Source
(D) Class
12. A systematic procedure for moving the CPU to new process is known as:
- (A) Synchronous
(B) Deadlock
(C) Starvation
(D) Context switch
13. Multitasking Operating Systems are also known assystems.
- (A) Network
(B) Distributed
(C) Time-sharing
(D) Multi-programming
14. A program that is loaded into memory and executing is commonly referred to as a :
- (A) File
(B) Process
(C) Data
(D) Directory
15.increases CPU utilization by organizing jobs so that the CPU always has one to execute.
- (A) Network
(B) Distributed
(C) Time-sharing
(D) Multi-programming
16. The heads of the magnetic disk are attached to a _____ that moves all the heads as a unit.
- (A) Spindle
(B) Disk arm
(C) Track
(D) None of the mentioned
17. By using the specific system call, we can :
- (A) Open The File
(B) Read The File
(C) Write Into The File
(D) All of the above
18. In contiguous allocation :
- (A) each file must occupy a set of contiguous blocks on the disk
(B) each file is a linked list of disk blocks
(C) all the pointers to scattered blocks are placed together in one location
(D) none of the mentioned
19.refers to putting data of various I/O jobs in a buffer.
- (A) Buffer
(B) Spooling
(C) Swapping
(D) Switching

20. For system protection, a process should access :
- (A) All the resources
 - (B) Only those resources for which it has authorization
 - (C) Few resources but authorization is not required
 - (D) All of the mentioned
21. The OS manages the communications between the processors. They communicate with each other through various communication lines. This environment known as:
- (A) Network
 - (B) Distributed
 - (C) Time-sharing
 - (D) Real -Time
22. The number of processes completed per unit time is known as :
- (A) Output
 - (B) Throughput
 - (C) Efficiency
 - (D) Capacity
23. Dived logical memory into blocks with the same size as frames are called :
- (A) Pages
 - (B) Frames
 - (C) Page Table
 - (D) Segmentation
24. The is the module that gives a process control over the CPU after it has been selected by the short-term scheduler.
- (A) Dispatcher
 - (B) Scheduler
 - (C) Controller
 - (D) Interrupt
25. The SJF algorithm executes first the job :
- (A) That last entered the queue
 - (B) That first entered the queue
 - (C) That has been in the queue the longest
 - (D) With the least processor needs
26. Page-Table Length Register (PTLR) indicates size of :
- (A) Page Table
 - (B) Paging File
 - (C) Main Memory
 - (D) Virtual Memory
27. Which is not application software?
- (A) Windows NT
 - (B) Page Maker
 - (C) WinWord XP
 - (D) Photoshop
28. The operating system is the most common type of Software.
- (A) Communication
 - (B) Application
 - (C) System
 - (D) Word processing software

29. Which of the following is not a resource that may be allocated by operating system?
- (A) CPU
(B) File system
(C) Memory
(D) Storage device
30. In what way is an operating system look like a government?
- (A) It performs most useful functions by itself
(B) It creates an environment within which other programs can do useful work
(C) It does not often function correctly
(D) It is always concerned primarily with the individual's needs
31. What is the name given to the organized collection of software that controls the overall operation of a computer?
- (A) Working System
(B) Operating System
(C) Controlling System
(D) Peripheral System
32. The processors do not share memory or a clock. Instead, each processor has its own local memory.
- (A) Network
- (B) Distributed
(C) Time-sharing
(D) Real-Time
33. To access the services of the operating system, the interface is provided by the :
- (A) System calls
(B) API
(C) Library
(D) Assembly instructions
34. What is the name of the technique in which the operating system of a computer executes several programs concurrently by switching back and forth between them?
- (A) Paging
(B) Windowing
(C) Partitioning
(D) Multitasking
35. Device driver required in?
- (A) Register
(B) Main memory
(C) Disk
(D) Cache
36. The most optimal CPU scheduling algorithm is :
- (A) Shortest job first
(B) First Come First Serve
(C) Round robin
(D) None of the above

37. A is a sequence of bits, bytes, lines or records.
- (A) Directory
(B) File
(C) Drive
(D) Pen Drive
38. FIFO scheduling is a type of:
- (A) Preemptive
(B) Non-preemptive
(C) Dead line scheduling
(D) None of the above
39. file organization provides, accessing the records directly.
- (A) Random Access
(B) Sequential Access
(C) Index Access
(D) Index Sequential Access
40. External fragmentation is a major issue with this type of allocation technique.
- (A) Index allocation
(B) Linked allocation
(C) Sequential allocation
(D) Contiguous allocation
41. is inefficient in case of direct access file.
- (A) Index allocation
(B) Linked allocation
(C) Sequential allocation
(D) Contiguous allocation
42. Each file has its own index block which stores the addresses of disk space occupied by the file :
- (A) Index allocation
(B) Linked allocation
(C) Sequential allocation
(D) Contiguous allocation
43. The duty of the scheduler is to bring the process from the JOB pool to the ready state for its execution.
- (A) Short-term
(B) Long-term
(C) Medium-term
(D) None of the above
44.are special system software which handle process scheduling in various ways.
- (A) Dispatcher
(B) Scheduler
(C) Controller
(D) Interrupt
45. Short-Term Scheduler is also known as scheduler.
- (A) job
(B) process
(C) CPU
(D) memory
46. The only work of scheduler is selection of :
- (A) Processes
(B) Memory
(C) Data
(D) Job

47. Which of the following is NOT a valid deadlock prevention scheme?
- (A) Release all resources before requesting a new resource
 - (B) Number the resources uniquely and never request a lower numbered resource than the last one requested.
 - (C) Never request a resource after releasing any resource
 - (D) Request all required resources be allocated before execution.
48. OS classifies the threads as :
- (A) Motherboard level
 - (B) Kernel and user level
 - (C) CPU level
 - (D) None of the above
49. The duty of the scheduler is to schedule the process from the ready state to the running state.
- (A) Short-term
 - (B) Long-term
 - (C) Medium-term
 - (D) None of the above
50. First-In-First-Out (FIFO) scheduling is :
- (A) Non-Preemptive Scheduling
 - (B) Preemptive Scheduling
 - (C) Fair Share Scheduling
 - (D) Deadline Scheduling
51. Booting means Switch off the computer.
- (A) True
 - (B) False
52. User action such as keystroke or mouse click are referred to as :
- (A) Interrupt
 - (B) Tasks
 - (C) Processes
 - (D) Event
53. Sharing the processor, when two or more programs reside in memory at the same time, is referred as Sharing the processor, when two or more programs reside in memory at the same time, is referred as :
- (A) Batch
 - (B) Multi-programming
 - (C) Multi-tasking
 - (D) None of the above
54. Which of the following is not a resource that may be allocated by operating system?
- (A) CPU
 - (B) File system
 - (C) Memory
 - (D) Storage device

55. Which computer systems that were designed primarily as batch systems have been modified to time sharing systems.
- (A) DOS
(B) Time-sharing system
(C) Network system
(D) None of the above
56. use multiple central processors to serve multiple real-time applications and multiple users.
- (A) Network system
(B) Central system
(C) Distributed System
(D) DOS system
57. Loosely coupled systems are also known as :
- (A) Network system
(B) Central system
(C) Distributed System
(D) DOS
58. A runs on a server and provides the server the capability to manage data, user's, groups, security, applications, and other networking functions.
- (A) Network system
(B) Central system
(C) Distributed System
(D) DOS
59. The time taken by the system to respond to an input and display of required updated information is termed as the:
- (A) Seek time
(B) Response time
(C) Edit time
(D) None of the above
60. A must have well-defined, fixed time constraints, otherwise the system will fail.
- (A) Network OS
(B) Real-time OS
(C) Distributed System
(D) DOS
61. Memory Management scheme for a specific system depends on many factors, especially on the of the system.
- (A) Software design
(B) Hardware design
(C) File design
(D) Memory design
62. In, a process address space is broken into fixed sized blocks called pages.
- (A) Memory
(B) Segmentation
(C) Paging
(D) File

63. It becomes possible to have the computer read data from a tape, write data to disk and to write out to a tape printer while it is doing its computing task.
- (A) Buffer
(B) Spooling
(C) Swapping
(D) Switching
64. Which of the following is not an operating system?
- (A) Linux
(B) DOS
(C) Oracle
(D) Windows
65. When can the binding of instructions and data to memory addresses be done?
- (A) Load time
(B) Compile time
(C) Execution time
(D) All of the above
66. This operating system was developed by an American company Microsoft:
- (A) MS Office
(B) Windows
(C) Linux
(D) Unix
67. Two types of atomic operations performed by semaphores?
- (A) Wait, signal
(B) Wait, stop
68. Is mutual exclusion required for shareable resources?
- (C) Signal, stop
(D) Signal, wait
69. A process which is copied from main memory to secondary memory on the basis of requirement is known as :
- (A) Demand Paging
(B) Paging
(C) Threads
(D) Segmentation
70. is capable of overlapping I/O operation for one job with processor operations for another job.
- (A) Buffer
(B) Spooling
(C) Swapping
(D) Switching
71. Among the following, which is an example of a spooled device?
- (A) A line printer that prints the output of a number of jobs.
(B) A terminal that inputs user data
(C) A I/O device to display graphics.
(D) None of the above

72. Which of the following is not a part of the operating system?
- (A) Input/output control program
(B) Job control program
(C) Supervisor
(D) Performance monitor
73. The interval from the time of submission of a process to the time of completion is termed as :
- (A) Waiting time
(B) Turnaround time
(C) Response time
(D) Throughput
74. Thread is a :
- (A) Light weight
(B) Heavy weight
(C) Multi weight
(D) None of the above
75. In priority scheduling algorithm :
- (A) CPU is allocated to the process with highest priority
(B) CPU is allocated to the process with lowest priority
(C) Equal priority processes can not be scheduled
(D) None of the mentioned
76. Process are classified into different groups in :
- (A) Shortest job scheduling algorithm
(B) Round robin scheduling algorithm
77. File type can be represented by :
- (A) File name
(B) File extension
(C) File identifier
(D) None of the mentioned
78. The operating system must guarantee response to events within fixed periods of time to ensure correct performance. This is :
- (A) Network
(B) Distributed
(C) Time-sharing
(D) Real-Time
79. In operating Systems, which of the following is/are CPU scheduling algorithms?
- (A) Round Robin
(B) Shortest Job First
(C) Priority
(D) All of the mentioned
80. The time taken to move the disk arm to the desired cylinder is called the :
- (A) Positioning time
(B) Random access time
(C) Seek time
(D) Rotational latency

81. External fragmentation reduced by the method known as :
- (A) memory management
 - (B) process editing
 - (C) compaction
 - (D) file editing
82. A process which is copied from main memory to secondary memory on the basis of requirement is known as :
- (A) Demand paging
 - (B) Thread
 - (C) Segment
 - (D) CPU
83. A can run in two modes – user mode and kernel mode.
- (A) File
 - (B) Memory
 - (C) Process
 - (D) Data
84. As per operating system should be convenient to use, easy to learn, reliable, safe, and fast.
- (A) System goal
 - (B) User goal
 - (C) Data goal
 - (D) Process goal
85. A condition is a situation that may occur inside a critical section.
- (A) Mutual
 - (B) Race
 - (C) Edit
 - (D) Entry
86. Atomic action is required in a critical section i.e. only one process can execute in its critical section at a time. This is :
- (A) Two process
 - (B) Thread
 - (C) One process
 - (D) Two thread
87. is used for exchanging data between multiple threads in one or more processes or programs.
- (A) Synchronization
 - (B) Inter process communication
 - (C) Semaphore
 - (D) Queue
88. _____ process can affect or be affected by the execution of another process.
- (A) Independent
 - (B) Free
 - (C) Running
 - (D) Cooperating
89. Ensure that a system will never enter an unsafe state, is known as:
- (A) Detection
 - (B) Avoidance
 - (C) Deadlock
 - (D) Resource graph
90. Multiple instances of a resource type Use the :
- (A) Resource allocation graph
 - (B) Deadlock detection
 - (C) Banker's algorithm
 - (D) None of the above

91. At first, operating systems were written in assembly.
(A) True
(B) False
92. An operating system is a program that acts as an interface between the user and the computer hardware and controls the of all kinds of programs.
(A) Read
(B) Write
(C) Execution
(D) End
93. Using higher level languages allows the code to be written slow.
(A) True
(B) False
94. Keeps tracks of processor and status of process, is known as:
(A) Process Management
(B) Device Management
(C) Memory Management
(D) None of the above
95. Secondary storage – extension of main memory that provides large storage capacity.
(A) Volatile
(B) Nonvolatile
(C) RAM
(D) None of the above
96. A file system is normally organized into directories for easy and usage.
(A) Edit
(B) Navigation
(C) Analysis
(D) Discussion
97. Operating system act as a teacher of all hardware and software devices in our computer system.
(A) True
(B) False
98. Keeps track of information, location, uses, status etc. It is known as:
(A) Memory system
(B) File system
(C) Device system
(D) None of the above
99. Keeps track of time and resources used by various jobs and users. It is known as:
(A) Memory Management
(B) File Management
(C) Job Accounting
(D) Security
100. Which of the following are CPU scheduling algorithms?
(A) Token bucket
(B) Sampling
(C) System call
(D) None of the above

Rough Work

Rough Work

Example :

Question :

Q.1 A ● C D

Q.2 A B ● D

Q.3 A ● C D

5. Each question carries equal marks. Marks will be awarded according to the number of correct answers you have.
 6. All answers are to be given on OMR Answer Sheet only. Answers given anywhere other than the place specified in the answer sheet will not be considered valid.
 7. Before writing anything on the OMR Answer Sheet, all the instructions given in it should be read carefully.
 8. After the completion of the examination, candidates should leave the examination hall only after providing their OMR Answer Sheet to the invigilator. Candidate can carry their Question Booklet.
 9. There will be no negative marking.
 10. Rough work, if any, should be done on the blank pages provided for the purpose in the booklet.
 11. To bring and use of log-book, calculator, pager & cellular phone in examination hall is prohibited.
 12. In case of any difference found in English and Hindi version of the question, the English version of the question will be held authentic.
- Impt.** On opening the question booklet, first check that all the pages of the question booklet are printed properly. If there is any discrepancy in the question Booklet, then after showing it to the invigilator, get another question Booklet of the same series.

उदाहरण :

प्रश्न :

प्रश्न 1 A ● C D

प्रश्न 2 A B ● D

प्रश्न 3 A ● C D

5. प्रत्येक प्रश्न के अंक समान हैं। आपके जितने उत्तर सही होंगे, उन्हीं के अनुसार अंक प्रदान किये जायेंगे।
 6. सभी उत्तर केवल ओ०एम०आर० उत्तर-पत्रक (OMR Answer Sheet) पर ही दिये जाने हैं। उत्तर-पत्रक में निर्धारित स्थान के अलावा अन्यत्र कहीं पर दिया गया उत्तर मान्य नहीं होगा।
 7. ओ०एम०आर० उत्तर-पत्रक (OMR Answer Sheet) पर कुछ भी लिखने से पूर्व उसमें दिये गये सभी अनुदेशों को सावधानीपूर्वक पढ़ लिया जाये।
 8. परीक्षा समाप्ति के उपरान्त परीक्षार्थी कक्ष निरीक्षक को अपनी OMR Answer Sheet उपलब्ध कराने के बाद ही परीक्षा कक्ष से प्रस्थान करें। परीक्षार्थी अपने साथ प्रश्न-पुस्तिका ले जा सकते हैं।
 9. निरोटिव मार्किंग नहीं है।
 10. कोई भी रफ कार्य, प्रश्न-पुस्तिका में, रफ-कार्य के लिए दिए खाली पेज पर ही किया जाना चाहिए।
 11. परीक्षा-कक्ष में लॉग-बुक, कैल्कुलेटर, पेजर तथा सेल्फ्युलर फोन ले जाना तथा उसका उपयोग करना वर्जित है।
 12. प्रश्न के हिन्दी एवं अंग्रेजी रूपान्तरण में भिन्नता होने की दशा में प्रश्न का अंग्रेजी रूपान्तरण ही मान्य होगा।
- महत्वपूर्ण:** प्रश्नपुस्तिका खोलने पर प्रथमतः जाँच कर देख लें कि प्रश्नपुस्तिका के सभी पृष्ठ भलीभाँति छपे हुए हैं। यदि प्रश्नपुस्तिका में कोई कमी हो, तो कक्षनिरीक्षक को दिखाकर उसी सिरीज की दूसरी प्रश्नपुस्तिका प्राप्त कर लें।