Roll No. .....

Question Booklet Number

O. M. R. Serial No. | | | | | | | | |

B. C. A. (Fourth Semester) EXAMINATION, 2022-23

OPERATING SYSTEM

Paper Code						
B	C	A	4	0	2	N

Questions Booklet Series
A

Time : 1:30 Hours] [*Maximum Marks : 75*

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.

परीक्षार्थियों के लिए निर्देश :

1. प्रश्न-पुस्तिका को तब तक न खोलें जब तक आपसे 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, तो उसे तुरन्त बदल लें।

(Remaining instructions on the last page) (शेष निर्देश अन्तिम पृष्ठ पर)

(Only for Rough Work)

1. At first, operating systems were written in assembly language.

(A) True

(B) False

2. 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

3. Using higher level languages allows the code to be written slow.

(A) True

(B) False

4. Keeps tracks of processor and status of process, is know as .....

(A) Process Management

(B) Device Management

(C) Memory Management

(D) None of the above

5. Secondary storage — extension of main memory that provides large ..... storage capacity.

(A) Volatile

(B) Nonvolatile

(C) RAM

(D) None of the above

6. A file system is normally organized into directories for easy ..... and usage.

(A) edit

(B) navigation

(C) analysis

(D) discussion

7. Operating system act as a teacher of all hardware and software devices in our computer system.

(A) True

(B) False

8. 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

9. 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

10. Which of the following are CPU scheduling algorithms ?

(A) Token bucket

(B) Sampling

(C) System call

(D) None of the above

11. Computer systems that were designed primarily as batch systems have been modified to time-sharing systems.

(A) DOS system

(B) Time-sharing system

(C) Network system

(D) None of the above

12. ..... uses multiple central processors to serve multiple real-time applications and multiple users.

(A) Network system

(B) Central system

(C) Distributed system

(D) DOS system

13. Loosely coupled systems are also know as :

(A) Network system

(B) Central system

(C) Distributed System

(D) DOS system

14. A ..... runs on a server and provides the server the capability to manage data, users, groups, security, applications, and other networking functions.

(A) Network system

(B) Central system

(C) Distributed System

(D) DOS System

15. 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

16. A ..... operating system must have well-defined, fixed time constraints, otherwise the system will fail.

(A) Network

(B) Real-time

(C) Distributed System

(D) DOS system

17. 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

18. In ..... a process address space is broken into fixed sized blocks called pages.

(A) Memory

(B) Segmentation

(C) Paging

(D) File

19. External fragmentation is reduced by the method known as :

(A) memory management

(B) process editing

(C) compaction

(D) file editing

20. 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

21. A ..... can run in two modes—user mode and kernel mode.

(A) file

(B) memory

(C) process

(D) data

22. 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

23. A ..... condition is a situation that may occur inside a critical section.

(A) mutual

(B) race

(C) edit

(D) entry

24. Atomic action is required in a critical section i.e. only one process can execute in its critical section at a time.

(A) Two process

(B) Thread

(C) One process

(D) Two thread

25. ..... is used for exchanging data between multiple threads in one or more processes or programs.

(A) Synchronization

(B) Interprocess communication

(C) Semaphore

(D) Queue

26. ..... process can affect or be affected by the execution of another process.

(A) Independent

(B) Free

(C) Running

(D) Cooperating

27. Ensure that a system will never enter an unsafe state, is known as .....

(A) detection

(B) avoidance

(C) deadlock

(D) resource graph

28. Multiple instances of a resource type — Use the .....

(A) resource allocation graph

(B) deadlock detection

(C) banker's algorithm

(D) None of the above

29. A ..... is a sequence of bits, bytes, lines or records.

(A) directory

(B) file

(C) drive

(D) pen drive

30. FIFO scheduling is a type of :

(A) Pre-emptive

(B) Non-preemptive

(C) Deadline scheduling

(D) None of the above

31. ..... file organization provides, accessing the records directly.

(A) random access

(B) sequential access

(C) index access

(D) index sequential access

32. External fragmentation is a major issue with this type of allocation technique :

(A) Index allocation

(B) Linked allocation

(C) Sequential allocation

(D) Contiguous allocation

33. ..... is inefficient in case of direct access file.

(A) Index allocation

(B) Linked allocation

(C) Sequential allocation

(D) Contiguous allocation

34. 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

35. 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

36. ..... are special system software which handle process scheduling in various ways.

(A) Dispatcher

(B) Scheduler

(C) Controller

(D) Interrupt

37. Short-term scheduler is also known as ..... scheduler.

(A) Job

(B) Process

(C) CPU

(D) Memory

38. The only work of scheduler is selection of .....

(A) processes

(B) memory

(C) data

(D) job

39. Program becomes process when ..... file loaded into memory.

(A) object

(B) executable

(C) source

(D) class

40. A systematic procedure for moving the CPU to new process is known as :

(A) syncronous

(B) deadlock

(C) starvation

(D) context switch

41. Multitasking Operating Systems are also known as ..... systems.

(A) Network

(B) Distributed

(C) Time-sharing

(D) Multi-programming

42. A program that is loaded into memory and is executing is commonly referred to as a ..... .

(A) file

(B) process

(C) data

(D) directory

43. ..... 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

44. 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

45. 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 mentioned

46. 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

47. ..... refers to putting data of various I/O jobs in a buffer.

(A) buffer

(B) spooling

(C) swapping

(D) switching

48. 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

49. 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

50. Thread is a :

(A) lightweight

(B) heavyweight

(C) multiweight

(D) None of the above

51. 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 cannot be scheduled

(D) None of the mentioned

52. Process are classified into different groups in .....

(A) shortest job scheduling algorithm

(B) round robin scheduling algorithm

(C) priority scheduling algorithm

(D) multilevel queue scheduling algorithm

53. File type can be represented by .....

(A) file name

(B) file extension

(C) file identifier

(D) None of the mentioned

54. The ..... operating system must guarantee response to events within fixed periods of time to ensure correct performance.

(A) Network

(B) Distributed

(C) Time-sharing

(D) Real-Time

55. 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

56. 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

57. 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

58. The OS manages the communications between the processors. They communicate with each other through various communication lines. This environments is known as :

(A) Network

(B) Distributed

(C) Time-sharing

(D) Real-Time

59. The number of processes completed per unit time is known as :

(A) Output

(B) Throughput

(C) Efficiency

(D) Capacity

60. Dived logical memory into blocks with the same size as frames are called :

(A) Pages

(B) Frames

(C) Page Table

(D) Segmentation

61. 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

62. 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

63. Page-Table length register (PTLR) indicates size of :

(A) Page Table

(B) Paging File

(C) Main Memory

(D) Virtual Memory

64. Which is not application software ?

(A) Windows NT

(B) Page Maker

(C) WinWord XP

(D) Photoshop

65. The operating system is the most common type of Software :

(A) Communication

(B) Application

(C) System

(D) Word processing software

66. 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 and all required resources be allocated before execution.

67. OS classifies the threads as-

(A) motherboard level

(B) kernel and user level

(C) cpu level

(D) None of the above

68. 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

69. First-in-First-Out (FIFO) scheduling is :

(A) Non Preemptive Scheduling

(B) Preemptive Scheduling

(C) Fair Share Scheduling

(D) Deadline Scheduling

70. Booting means Switch off the computer.

(A) True

(B) False

71. User action such as keystroke or mouse click are referred to as :

(A) Interrupt

(B) Tasks

(C) Processes

(D) Event

72. 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

73. 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

74. 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

75. 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

76. 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

77. 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

78. To access the services of the operating system, the interface is provided by the_____

(A) System calls

(B) API

(C) Library

(D) Assembly instructions

79. 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

80. Device driver is required in :

(A) Register

(B) Main memory

(C) Disk

(D) Cache

81. The most optimal CPU scheduling algorithm is :

(A) Shortest job first

(B) First Come First Serve

(C) Round robin

(D) None of the above

82. 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

83. Which of the following is not an operating system ?

(A) Linux

(B) DOS

(C) Oracle

(D) Windows

84. 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

85. This operating system was developed by an American company Microsoft ..... .

(A) MS Office

(B) Windows

(C) Linux

(D) Unix

86. Two types of atomic operations performed by semaphores ?

(A) Wait, signal

(B) Wait, stop

(C) Signal, stop

(D) Signal, wait

87. Is mutual exclusion required for shareable resources ?

(A) Yes

(B) No

(C) May be

(D) None of the above

88. 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

89. ..... is capable of overlapping I/O operation for one job with processor operations for another job.

(A) Buffer

(B) Spooling

(C) Swapping

(D) Switching

90. 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

91. Which is not the function of the Operating System ?

(A) Memory management

(B) Disk management

(C) Application management

(D) Virus protection

92. 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

93. 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

94. To access the services of the operating system, the interface is provided by the .....

(A) Library

(B) API

(C) System calls

(D) Assembly instructions

95. ..... is the concept in which a process is copied into the main memory from the secondary memory according to the requirement.

(A) Paging

(B) Demand paging

(C) Segmentation

(D) Swapping

96. The operating system is responsible for :

(A) bad-block recovery

(B) booting from disk

(C) disk initialization

(D) All of the mentioned

97. Network operating system runs on both server and every system in the network.

(A) True

(B) False

98. To access the ..... of the operating system, the interface is provided by the System calls.

(A) Library

(B) Assembly instructions

(C) Services

(D) API

99. CPU scheduling is the basis of multi-programming operating systems.

(A) True

(B) False

100. Operating systems provides a layer, user friendly interface.

(A) True

(B) False

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 :

Example :

Question :

Q. 1 (A) ● (C) (D)
Q. 2 (A) (B) ● (D)
Q. 3 (A) ● (C) (D)

Illegible answers with cutting and over-writing or half filled circle will be cancelled.

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 and 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 ny discrepancy in the question Booklet, then after showing it to the invigilator, get another question Booklet of the same series.

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 आन्सर-शीट में सम्बन्धित प्रश्न संख्या में निम्न प्रकार भरना है :

उदाहरण :

प्रश्न :

प्रश्न 1 (A) ● (C) (D)
प्रश्न 2 (A) (B) ● (D)
प्रश्न 3 (A) ● (C) (D)

अपठनीय उत्तर या ऐसे उत्तर जिन्हें काटा या बदला गया है, या गोले में आधा भरकर दिया गया, उन्हें निरस्त कर दिया जाएगा।

5. प्रत्येक प्रश्न के अंक समान हैं। आपके जितने उत्तर सही होंगे, उन्हीं के अनुसार अंक प्रदान किये जायेंगे।

6. सभी उत्तर केवल ओ. एम. आर. 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. ओ. एम. आर. 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. निगेटिव मार्किंग नहीं है।

10. कोई भी रफ कार्य, प्रश्न-पुस्तिका के अन्त में, रफ-कार्य के लिए दिए खाली पेज पर ही किया जाना चाहिए।

11. परीक्षा-कक्ष में लॉग-बुक, कैलकुलेटर, पेजर तथा सेल्युलर 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 प्रश्न-पुस्तिका के सभी पृष्ठ भलीभाँति छपे हुए हैं। यदि प्रश्नपुस्तिका में कोई कमी हो, तो कक्षनिरीक्षक को दिखाकर उसी सिरीज की दूसरी प्रश्न-पुस्तिका प्राप्त कर लें।