QUESTION BANK	
UNIT – I :	
2 Marks	
1.	What is an opearting system?
2.	What are operating system services?
3.	Describe the operating system operations?
4.	Describe the operating system functions?
5.	Explain simple batch system?
6.	Explain time sharing operating system?
7	List out any four process control system calls?
8	Explain virtual machines?
9.	List out any four information management system calls?
10.	Describe distributed operating system?
5 Marks	
1.	What are the various objectives and functions of Operating systems?
2.	What are the major activities of an operating systems with regard to process management?
3.	Differentiate distributed systems from multiprocessor system?
4.	Explain the basic instruction cycle with appropriate diagram?
5.	Explain OS structure?
6.	Briefly explain virtual machines?
7.	Explain about multiprogramming and time sharing operating system?
8.	Explain computer system architecture?
9.	Explain about system calls?
10.	What is os user interface?
10 Marks	
1.	What is system calls in OS? Explain in detail with its types.
2.	Discuss the Simple Operating System Structure. Describe the layered approach
3.	What are different types of operating system? Explain them in detail
4.	Explain User Operating-System Interface in detail
5.	Explain operating system functions and services in detail.
	UNIT-II
2 Marks	
1.	Define process?
2.	What is meant by the state of the process?
3.	What does PCB contain?
4.	What are the 3 different types of scheduling queues?
5.	Define schedulers?

6.	What are the types of scheduler?
7.	Define critical section?
8.	Define semaphores.
9.	Name dome classic problem of synchronization?
10.	What is the use of cooperating processes?
11.	Define race condition.
12.	What are the requirements that a solution to the critical section problem must satisfy?
13.	Define entry section and exit section
5 Marks	
1.	What is a process ?explain different process states(DEC 2015)
2.	Explain about process scheduling? Explain different types of schedulers?
3.	Differentiate between process and threads
4.	Define Thread and explain advantages of threads?
5.	Explain the scheduling criteria
6.	Explain FCFS scheduling algorithm with example.
7.	Explain SJF scheduling algorithm with example
8.	Explain Priority scheduling algorithm with example
9.	Explain Round Robin scheduling algorithm with example.
10.	Explain about different multithreading models
10 Marks	
1.	Write about the various CPU scheduling algorithms
2.	Consider the following five processes, with the length of the CPU burst time given in milliseconds. Process Burst time P1 10 P2 29 P3 3 P4 7 P5 12 Consider the First come First serve (FCFS), Non Preemptive Shortest Job First(SJF), Round Robin(RR) (quantum=10ms) scheduling algorithms. Illustrate the scheduling using Gantt chart. Which
3.	What is the important feature of critical section? State the Readers Writers problem and give solution using semaphore.

	What is starvation? Explain with example.(DEC 2015)
	UNIT-III
2 Marks	
1.	Define Swapping
2.	What is External Fragmentation?
3.	What is Internal Fragmentation?
4.	What do you mean by Compaction?
5.	What are Pages and Frames?
6.	What is the use of Valid-Invalid Bits in Paging?
7.	What is the basic method of Segmentation?
8.	What is Virtual Memory?
9.	What is Demand Paging?

10.	What is the basic approach of Page Replacement?
11.	What is the various Page Replacement Algorithms used for Page Replacement?
12.	What is a Reference String?
13.	How is memory protected in a paged environment?
14.	What do you mean by Best Fit, First fit and Worst fit?
5 Marks	
1.	Discuss LRU-Approximation page Replacement.
2.	What is swapping and what is its purpose?
3.	Explain paging scheme for memory management, discuss the paging hardware and Paging
4.	Explain about contiguous memory allocation?
5.	Explain about first fit, best fit, worst fit, next fit algorithms?
6.	Explain about advantages and disadvantages of paging? And Explain difference between paging and segmentation?
7.	Explain about Linux memory management?
8.	Explain about the following page replacement algorithms a)FIFO b)OPR, c)LRU
9.	Differentiate local and global page replacement algorithm. Differentiate local and global page replacement algorithm.
10.	What is virtual memory? Mention its advantages
11.	Differentiate external fragmentation with internal fragmentation.
12.	Write short notes on swapping
10 Marks	
1.	Briefly explain and compare, fixed and dynamic memory partitioning schemes.
2.	Explain with the help of examples FIFO and LRU, optical page replacement algorithms with example reference string. Mention the merits and demerits of each of the above
3.	Explain how paging supports virtual memory. With neat diagram explain hoe logical address is translated into physical address
4.	Write about the techniques for structuring the page table.
5.	What is thrashing and explain the methods to avoid thrashing?
6.	Explain the basic concepts of segmentation in detail.
	UNIT-IV
2 Marks	
1.	What is a File?
2.	List the various File Attributes
3.	What are the various File Operations?
4.	What is the information associated with an Open File?
5.	What are the different Accessing Methods of a File?
6.	What is Directory?
7.	What are the operations that can be performed on a Directory?
8.	What are the most common schemes for defining the Logical Structure of a Directory?
9.	Define UFD and MFD

10.	What is a Path Name?
11.	If the average page faults service time of 25 ms and a memory access time of 100ns.Calculate the effective access time.
12.	What are the types of Path Names?
13.	What is meant by Locality of Reference?
14.	Define Seek Time and Latency Time.
15.	What are the Allocation Methods of a Disk Space?
16.	What are the advantages of Contiguous Allocation?
17.	What are the drawbacks of Contiguous Allocation of Disk Space?
18.	What are the advantages of Linked Allocation?
19.	What are the disadvantages of Linked Allocation?
20.	What are the various Disk-Scheduling Algorithms?
5 Marks	
1.	Discuss the criteria for choosing a file organization
2.	Describe indexed file, indexed sequential file organization
3.	Explain hash files organization
4.	Discuss the objectives for file management systems
5.	Explain the file system Architecture
6.	Explain about file attributes, file operations, and file types?
7.	Suppose the head of a moving- head disk with 200 tracks, numbered 0 to 199, is Currently serving a request at track 143 and has just finished a request at track 125. If the queue of requests is kept in FIFO order: 86, 147, 91, 177, 94, 150, 102, 175, 130. What is the total head movement to satisfy these requests for the following Disk scheduling algorithms. (a)FCFS (b) Random (d) SCAN (e) SSTF (f) C -SCAN
8.	Explain about single-level, two-level directory structure?
9.	Explain about file system mounting, file sharing?
10 Marks	
1.	Explain different free space management techniques in detail.
2.	Explain the following wrt file a) Concept of file b) Access methods c) File sharing
3.	Explain disk structure in detail.
4.	Explain swap space management in detail.
5.	Explain different Disk scheduling algorithms SCAN,CSCAN.CLOOK(DEC 2015)
6.	Give overview of mass storage structure in detail.
	UNIT-V

2 Marks	
1.	What is deadlock?
2.	What are goals of system protection?
3.	What is Access matrix?
4.	What are different methods for handling deadlocks?
5.	What is Access control?
6.	What are principles of protection?
7.	What are necessary conditions for deadlocks?
8.	Explain domain of protection.
9.	Explain capability based system?
10.	Explain laguange based protection.
5 Marks	
1.	Write the resource allocation algorithm for dead lock?
2.	Explain about Deadlock Prevention
3.	Explain about Deadlock Avoidance
4.	Explain about necessary conditions of deadlock
5.	Explain about resource allocation graph(RAG)?
6.	Explain about recovery from deadlock?
7.	Explain system protection with its goals.
8.	What is Access matrix ? explain its implementation.
	10 Marks
1.	What is deadlock? Explain deadlock prevention in detail.
2.	What is deadlock? Explain deadlock Avoidance in detail.(DEC 2015)
3.	What is deadlock? Explain deadlock recovery in detail.
4.	Explain goals and principles of system protection in detail.
5.	What is Access Matrix? Explain implementation of Access Matrix in detail.
6.	Explain: a) Capability based system b) Language based protection.

1.Dual mode of operating system has

A. 1 mode
B. 2 modes
C. 3 modes
D. 4 modes

ANSWER: B

2.Multi-processor system gives a

A. small system
B. tightly coupled system
C. loosely coupled system
D. both a and b

Answer B

3. Logical extension of multiprogramming operating system is

A. time sharing
B. multi-tasking
C. single programing
D. both a and b

Answer D

4. Multiprocessor system have advantage of

A. Increased Throughput
B. Expensive hardware
C. operating system
D. both a and b

ANSWER: A

5. Scheduling of threads are done by

A. input
B. output
C. operating system
D. memory

ANSWER:C

6. Multiprogramming of computer system increases

A. memory
B. storage
C. CPU utilization

D. cost

ANSWER: C

7.Another type of multiple-CPU system is the

A. mini Computer
B. Super Computer
C. Clustered System
D. both a and b

ANSWER: C

8. Interrupt table of pointers having addresses for each interrupt is located at

A. high memory
B. low memory
C. mid memory
D. both a and b

ANSWER: B

9. Example of open source operating system is

A. UNIX
B. Linux
C. windows
D. both a and b

ANSWER: D

10. Main memory of computer system is also called

A. non volatile
B. volatile
C. reserved
D. large

ANSWER: B

11. Controller of computer system transfers data from device to

A. buffers
B. cache
C. registers
D. indexes

ANSWER: A

12. When many users accesses mainframes, this approach is called as

A. resource allocation
B. word processors
C. dedicated resources
D. interface

ANSWER: A

13. Accessing same data from storage of computer system is provided by

A. serial clusters
B. parallel clusters
C. Beowulf clusters
D. both a and b

ANSWER: B

14. To start an I/O operation device driver loads appropriate register into?

A. memory
B. Secondary storage
C. Device Controller
D. Arrays

ANSWER: C

15. Symmetric multiprocessing architecture of computer system uses shared

A. bus
B. memory
C. processors

D. both a and b

ANSWER: **D**

16. In asymmetric clustering other machines perform operations while one machine is in

A. hot standby mode
B. standby mode
C. reset mode
D. undefined mode

ANSWER: AAnswer A

17. Ability to continuously providing service proportional to level of surviving hardware

A. graceful upgradation
B. degradation
C. upgradation
D. graceful degradation

ANSWER: D

18. Secondary memory of computer system is also called

A. non volatile
B. volatile
C. reserved
D. small

ANSWER: A

19. Environment in which programs of computer system are executed is:

A. operating system
B. nodes
C. clustered system
D. both a and b

ANSWER: A

20. One word memory storage is collection of

A. 2 bytes

B. 4 bytes
C. 7 bytes
D. 8 bytes

ANSWER: B

21. Each user of computer system that uses computer services has at least

A. 1program
B. 2programs
C. 3programs
D. 4programs

ANSWER: A

22. Clusters of computer system can be used more efficiently using

A. serialization
B. parallelization
C. LAN
D. WAN

ANSWER: B

23. A properly designed operating system must ensure that an incorrect (or malicious) program cannot cause other programs to execute

A. incorrectly
B. Correctly
C. both a and b
D. None

ANSWER: A

24. Table of pointers for interrupt to be executed contains the

A. interrupts
B. programs
C. addresses
D. compilers

ANSWER: C

25. User view of system depends upon the

A. CPU
B. software
C. hardware
D. interface

ANSWER: D

26. Memories are normally classified according to their

A. speed
B. cost
C. indexes
D. both a and b

ANSWER: D

27. SCSI system is abbreviation of the

A. small common-system interface
B. small common-system interaction
C. small computer-system interface
D. small computer-system interaction

ANSWER: C

28. One megabyte memory storage in form of bytes is equal to

A. 1024 bytes
B. 1024^2 bytes
C. 1024^3 bytes
D. 1024&sup4; bytes

ANSWER: B

29. Multi-processing systems of computer system are of

A. 2 types

B. 3 types
C. 4 types
D. 5 types

ANSWER: A

30. Clustered computer systems are normally linked via

A. LAN
B. WAN
C. PAN
D. TAN

ANSWER: A

31. Kernel mode of operating system runs when mode bit is

A. 1
B. 0
C. x
D. undefined

ANSWER: B

32. Kernel mode of operating system is also called

A. user mode
B. system mode
C. supervisor mode
D. both a and b

ANSWER: C

33. Multi-processor systems of computer system has advantage of

A. cost
B. reliability
C. uncertainty
D. scalability

ANSWER: B

34. Time sharing systems of computer system have

A. clusters
B. nodes
C. file system
D. both a and b

ANSWER:C

35. One megabyte memory storage in form of bytes is equal to

A. 1024 bytes
B. 1024 kilo bytes
C. 1056 bytes
D. 1058 kilo bytes

ANSWER: B

36. Privileged mode of operating system mode is a

A. user code
B. kernel mode
C. system mode
D. both b and c

ANSWER: B

37. Example of bug in one program of operating system effects others in

A. zero error
B. infinite loop
C. invalid memory access
D. both a and b

ANSWER: B

38. Master slave relationship in computer system is used by

A. symmetric multiprocessor

B. asymmetric multiprocessor
C. symmetric multiprocessing
D. asymmetric multiprocessing

ANSWER: D

39. Beowulf clusters of computer system uses

A. close source softwares
B. open source softwares
C. dedicated softwares
D. both a and b

ANSWER: B

40. In non-multiprogrammed system Central Processing Unit will

A. sit idle
B. perform well
C. cost high
D. cost low

ANSWER: B

UNIT II

MCQ. When a thread needs to wait for an event it will

A. Block
B. Execute
C. Terminate
D. Update

ANSWER:A

Answer A

MCQ. In a pure Kernel Level Thread facility all of work of thread management is done by the

A. Application
B. Program

C. Kernel
D. Threads

An ANSWER:Cswer C

MCQ. Microkernel design imposes a uniform

A. Process
B. Processor
C. Interface
D. System

Answer C ANSWER:C

MCQ. Microkernel architecture facilitates

A. Functionality
B. Extensibility
C. Reliability
D. Portability

Answer B ANSWER:B

MCQ. Asynchronous elements in program can be implemented through

A. Bugs
B. Threads
C. Programs
D. Security Policy

Answer B ANSWER:B

MCQ. Unit of dispatching is usually referred as

A. Multiprogramming
B. Security Policy
C. Problem
D. Thread

Answer D ANSWER:D

MCQ. A single machine instruction can controls simultaneous execution of a number processing elements on

A. Lockstep Basis
B. Open Step Basis
C. Early Basis
D. None

Answer A ANSWER:A

MCQ. Owner of an address space can grant a number of its

A. Modules
B. Pages
C. Devices
D. Computers

Answer B ANSWER:B

MCQ. Microkernel lends itself to

A. Computers
B. Systems
C. Distributed Systems
D. Applications

Answer C ANSWER:C

MCQ. Microkernel supports

A. Flexibility
B. Reliability
C. Accessible
D. Rigid

Answer A ANSWER:A

MCQ. In Many-to-One multithreading model many user level threads are attached to

A. One register
B. operating system
C. One kernel thread
D. other threads

Answer C ANSWER:C

MCQ. Programs involve a variety of activities is easier to design and implement using

A. Programs
B. Information
C. Data
D. Threads

Answer D ANSWER:D

MCQ. Multiple threads within same process may be allocated to separate

A. Applications
B. Programs
C. Processors
D. Processes

Answer C ANSWER:C

MCQ. A lightweight process (LWP) can be viewed as a mapping between ULTs and

A. Kernel Threads
B. UNIX Thread
C. Linux Threads
D. Window Vista Threads

Answer A ANSWER:A

MCQ. Modular design helps to enhance

A. Functionality
B. Reliability
C. Portability
D. Flexibility

Answer B ANSWER:B

MCQ. Microkernel is responsible for mapping each virtual

A. Module
B. I/O Devices
C. Memory
D. Page

Answer D ANSWER:D

MCQ. Thread processor affinity is set of

A. Processes
B. Processors
C. Programs
D. Applications

Answer B ANSWER:B

MCQ. In UNIX, thread is

A. Runnable
B. Executing
C. Updated
D. Access

Answer A ANSWER:A

MCQ. When a process is spawned, a thread for that process is also

A. Complete
B. Spawned
C. Closed
D. Update

Answer B ANSWER:B

MCQ. A sequence of data is transmitted to a set of

A. Devices
B. Resources
C. Computers
D. Processors

Answer D ANSWER:D

MCQ. A set of processors simultaneously execute different instructions on different

A. Buffers
B. Data Set
C. Buses

D. Registers

Answer B ANSWER:B

MCQ. A new process is created in Linux by copying the

A. Address
B. ID
C. Object
D. Attributes

Answer D ANSWER:D

MCQ. Multithreading refers to ability of an operating system to support multiple

A. Execution
B. Updating
C. Completion
D. None

Answer A ANSWER:A

MCQ. A microkernel architecture works well in context of an

A. Object Oriented Operating System
B. Internal device
C. Interface
D. Attractive Feature

Answer A ANSWER:A

MCQ. When a new process is created in Win32 new process inherits many of its

A. Classes
B. Objects
C. Parent Attributes
D. Functions

Answer C ANSWER:C

MCQ. A single processor executes a single instruction stream to operate on data stored in a single

A. Computer

B. System
C. Memory
D. Device

Answer C ANSWER:C

MCQ. Each windows process is represented by an

A. I/O Devices
B. Interface
C. Object
D. Information

Answer C ANSWER:C

MCQ. With Microkernel architecture it is possible to handle hardware interrupts as

A. Application
B. Information
C. Data
D. Message

Answer D ANSWER:D

MCQ. Process or task in Linux is represented by a

A. task done
B. task construct
C. task build
D. task struct

Answer D ANSWER:D

MCQ. Windows processes are implemented as

A. Objectives
B. Programs
C. Modems
D. Models

Answer A ANSWER:A

MCQ. Kernel threads are directly supported by

A. Register
B. Application
C. Operating system
D. Memory

Answer C ANSWER:C

MCQ. Motivation for converting interrupts to threads is to reduce

A. Overcome
B. Overhead
C. Overload
D. Over access

Answer B ANSWER:B

MCQ. Process image is collection of

A. Images
B. Graphics
C. Programs
D. None

Answer C ANSWER:C

MCQ. Kernel dispatcher keep track of all ready

A. Threads
B. Systems
C. Registers
D. Buffers

Answer A ANSWER:A

MCQ. A process can map any of its pages into address space of another

A. Process
B. Program
C. System
D. Application

ANSWER:A

Answer A**MCQ.** In a pure User Level Thread facility all of work of thread management is done by the

A. Application
B. Process
C. Program
D. System

Answer A ANSWER:A

MCQ. Process execution is execution of

A. Blocks
B. Paths
C. Statements
D. Programs

Answer B ANSWER:B

MCQ. Traditionally computer has been viewed as a sequential

A. Data
B. Machine
C. Program
D. Process

Answer B ANSWER:B

MCQ. Port identities and capabilities are maintained by

A. Object Oriented Operating System
B. Kernel Service
C. Kernel
D. Microkernel

Answer C ANSWER:C

MCQ. Which java feature is used to invoke a method on a remote object?

A. Process Control Block (PCB)
B. Remote Method Invocation (RMI)
C. Remote access control Block
D. both a and b

Answer B

VB ANSWER:B

UNIT-III

1. CPU fetches the instruction from memory according to the value of:

- **A.** program counter
- **B.** status register
- **C.** instruction register
- **D.** program status word

Answer & Explanation

Answer: Option A
Explanation:
None
.

2. A memory buffer used to accommodate a speed differential is called:

- **A.** stack pointer
- **B.** cache
- **C.** accumulator
- **D.** disk buffer
- ANSWER: B

3. Which one of the following is the address generated by CPU?

- **A.** physical address
- **B.** absolute address
- **C.** logical address
- **D.** none of the mentioned

ANSWER:C

4. Run time mapping from virtual to physical address is done by:

- **A.** memory management unit
- **B.** CPU

- **C.** PCI
- **D.** none of the mentioned

ANSWER:A

5. Memory management technique in which system stores and retrieves data from secondary storage for use in main memory is called:

- **A.** fragmentation
- **B.** paging
- **C.** mapping
- **D.** none of the mentioned
- ANSWER:B

6. Effective access time is directly proportional to:

- **A.** page-fault rate
- **B.** hit ratio
- **C.** memory access time
- **D.** none of the mentioned
- ANSWER:B

7. In FIFO page replacement algorithm, when a page must be replaced:

- **A.** oldest page is chosen
- **B.** newest page is chosen
- **C.** random page is chosen
- **D.** none of the mentioned

ANSWER:A

8. Which algorithm chooses the page that has not been used for the longest period of time whenever the page required to be replaced?

- **A.** first in first out algorithm

- **B.** additional reference bit algorithm
- **C.** least recently used algorithm
- **D.** counting based page replacement algorithm

ANSWER:A

9. A process is thrashing if:

- **A.** it is spending more time paging than executing
- **B.** it is spending less time paging than executing
- **C.** page fault occurs
- **D.** swapping can not take place
- ANSWER:C

10. Working set model for page replacement is based on the assumption of:

- **A.** modularity
- **B.** locality
- **C.** globalization
- **D.** random access

ANSWER:A

11. The operating system is :

- **A.** in the low memory
- **B.** in the high memory
- **C.** either a or b (depending on the location of interrupt vector)
- **D.** None of these
- ANSWER:C

12. In contiguous memory allocation :

- **A.** each process is contained in a single contiguous section of memory
- **B.** all processes are contained in a single contiguous section of memory
- **C.** the memory space is contiguous
- **D.** None of these
- ANSWER:A

13. The relocation register helps in :

- **A.** providing more address space to processes
- **B.** a different address space to processes
- **C.** to protect the address spaces of processes
- **D.** None of these

ANSWER:C

14. With relocation and limit registers, each logical address must be _____ the limit register.

- **A.** less than
- **B.** equal to
- **C.** greater than
- **D.** None of these

ANSWER:A

15. The operating system and the other processes are protected from being modified by an already running process because :

- **A.** they are in different memory spaces
- **B.** they are in different logical addresses
- **C.** they have a protection algorithm
- **D.** every address generated by the CPU is being checked against the relocation and limit registers

ANSWER:D

16. Transient operating system code is code that :

- **A.** is not easily accessible
- **B.** comes and goes as needed
- **C.** stays in the memory always
- **D.** never enters the memory space

ANSWER:B

17. Using transient code, _____ the size of the operating system during program execution.

- **A.** increases
- **B.** decreases

- **C.** changes
- **D.** maintains

ANSWER:C

18. When memory is divided into several fixed sized partitions, each partition may contain _____.

- **A.** exactly one process
- **B.** atleast one process
- **C.** multiple processes at once
- **D.** None of these

ANSWER:A

19. In fixed sized partition, the degree of multiprogramming is bounded by _____.

- **A.** the number of partitions
- **B.** the CPU utilization
- **C.** the memory size
- **D.** All of these

ANSWER:A

20. The first fit, best fit and worst fit are strategies to select a _____.

- **A.** process from a queue to put in memory
- **B.** processor to run the next process
- **C.** free hole from a set of available holes
- **D.** All of these
- ANSWER:C

21. In internal fragmentation, memory is internal to a partition and :

- **A.** is being used
- **B.** is not being used
- **C.** is always used
- **D.** None of these

ANSWER:B

22. A solution to the problem of external fragmentation is :

- **A.** compaction

- **B.** larger memory space
- **C.** smaller memory space
- **D.** None of these

ANSWER:A

23. Another solution to the problem of external fragmentation problem is to :

- **A.** permit the logical address space of a process to be noncontiguous
- **B.** permit smaller processes to be allocated memory at last
- **C.** permit larger processes to be allocated memory at last
- **D.** All of these

ANSWER:A

24. If relocation is static and is done at assembly or load time, compaction _____.

- **A.** cannot be done
- **B.** must be done
- **C.** must not be done
- **D.** can be done

ANSWER:A

25. The disadvantage of moving all process to one end of memory and all holes to the other direction, producing one large hole of available memory is :

- **A.** the cost incurred
- **B.** the memory used
- **C.** the CPU used
- **D.** All of these

ANSWER:A

Answer D

26. _____ is generally faster than _____ and _____.

- **A.** first fit, best fit, worst fit
- **B.** best fit, first fit, worst fit

- **C.** worst fit, best fit, first fit
- **D.** None of these

ANSWER:A

27. External fragmentation exists when :

- **A.** enough total memory exists to satisfy a request but it is not contiguous
- **B.** the total memory is insufficient to satisfy a request
- **C.** a request cannot be satisfied even when the total memory is free
- **D.** None of these

ANSWER:A

28. External fragmentation will not occur when :

- **A.** first fit is used
- **B.** best fit is used
- **C.** worst fit is used
- **D.** no matter which algorithm is used, it will always occur

ANSWER:D

29. Sometimes the overhead of keeping track of a hole might be :

- **A.** larger than the memory
- **B.** larger than the hole itself
- **C.** very small
- **D.** All of these

ANSWER:B

30. When the memory allocated to a process is slightly larger than the process, then :

- **A.** internal fragmentation occurs
- **B.** external fragmentation occurs
- **C.** both a and b
- **D.** neither a nor b
- ANSWER:A

31. Because of virtual memory, the memory can be shared among:

- **A.** processes

- **B.** threads
- **C.** instructions
- **D.** none of the mentioned

ANSWER:A

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

- **A.** Paging
- **B.** Demand paging
- **C.** Segmentation
- **D.** Swapping

ANSWER:B

33. The pager concerns with the:

- **A.** individual page of a process
- **B.** entire process
- **C.** entire thread
- **D.** first page of a process
- ANSWER:A

34. Swap space exists in:

- **A.** primary memory
- **B.** secondary memory
- **C.** CPU
- **D.** none of the mentioned

ANSWER:B

35. When a program tries to access a page that is mapped in address space but not loaded in physical memory, then?

- **A.** segmentation fault occurs
- **B.** fatal error occurs
- **C.** page fault occurs
- **D.** no error occurs

ANSWER:C

36. Effective access time is directly proportional to:

- **A.** page-fault rate
- **B.** hit ratio
- **C.** memory access time
- **D.** none of the mentioned

ANSWER:A

37. In FIFO page replacement algorithm, when a page must be replaced:

- **A.** oldest page is chosen
- **B.** newest page is chosen
- **C.** random page is chosen
- **D.** none of the mentioned

ANSWER:A

38. Which algorithm chooses the page that has not been used for the longest period of time whenever the page required to be replaced?

- **A.** first in first out algorithm
- **B.** additional reference bit algorithm
- **C.** least recently used algorithm
- **D.** counting based page replacement algorithm

ANSWER:C

39. A process is thrashing if:

- **A.** it is spending more time paging than executing
- **B.** it is spending less time paging than executing
- **C.** page fault occurs
- **D.** swapping can not take place

ANSWER:A

10. Working set model for page replacement is based on the assumption of:

- **A.** modularity
- **B.** locality
- **C.** globalization
- **D.** random access

ANSWER:B

UNIT-IV

1. Destruction of files for malicious reasons such as access by fraudulent people is classified as being

A. modified
B. accessed
C. destroyed
D. unauthorized access

ANSWER:A

Answer A

2.. In files, if order of operation on two or more files are similar, then operation will be

A. complex
B. simple
C. sequential
D. combinational

ANSWER:B

Answer B

3. Search in which record is checked and read for desired items in file linearly is classified as

A. combinational search
B. linear research
C. linear search
D. quadratic search

ANSWER:C

Answer C

4. Field which is used to identify specific record and can't be duplicated is classified as

A. key field
B. duplicate field
C. copied field
D. original field

Answer A

5. Access in which records are accessed from and inserted into file, is classified as

A. direct access
B. sequential access
C. random access
D. duplicate access

ANSWER:B

Ans6 6.Smallest piece of data that could be deal separately is classified as

A. file record
B. item
C. data column
D. bug

ANSWER:BAnswer B

7. File code which engineers add to file name and limit access to few users is called

A. limited code
B. access code
C. code protection
D. physical code

ANSWER:BAnswer B

8. Large collection of structured data that can be used in different applications is called

A. database management
B. management system
C. database

D. data storage system

ANSWER:CAnswer C

9. Preparation of disc for subsequent file storage is classified as

A. disc format
B. disc address
C. disc footer
D. disc header

ANSWER:AAnswer A

10. In microcomputers files, inquiry programs used for simple purposes are classified as

A. storage package
B. database package
C. organized package
D. hardware package

Answer B

11.In computer programming, particular way by which data records are arranged into a specific manner is considered as

A. organization
B. reorganized
C. managing
D. record storage

ANSWER:AAnswer A

12. Arrangement of data into a specific order is classified as

A. sorting
B. ordering
C. learning
D. inquiring

ANSWER:AAnswer A

13. File which is automatically updated when needed is classified as

A. particular file
B. reference file
C. master file
D. application file

ANSWER:CAnswer C

14. All keys which are used to identify particular item must be

A. same
B. different
C. lengthy
D. short

ANSWER:BAnswer B

15. Program packages that allows user to search items in a file or some combination of selected items are classified as

A. file search
B. file inquiry
C. linear file search
D. quadratic linear search

ANSWER:BAnswer B

16. Programs written easily by programmers in a

A. direct file
B. order file
C. sequence file
D. timed file

ANSWER:CAnswer C

17. Kind of exchange in which number is compared to next item for possible exchange is called

A. exchange sort
B. selection sort
C. bubble sort
D. possible sort

ANSWER:CAnswer C

18. Operations performed on serial file are in order would be much

A. easier
B. complex
C. differential
D. sequential

ANSWER:AAnswer A

19. In user facilities, copying of all records onto a main store from permanent store is considered as

A. delete file
B. rename file
C. save file
D. load file

ANSWER:DAnswer D

20. In sequential files update, record orders of transaction file and master file must be

A. safe
B. same
C. different
D. descending order

ANSWER:B

Answer B21 21.When data files are updated, new file is called

A. father file
B. son file
C. grandfather file
D. grandson file

Answer ANSWER:BB

22. Ability to obtain data from a storage device by going directly to where it is physically located on device rather than by having to sequentially look for data at one physical location after another is called

A. sequential access
B. timed access
C. direct access

D. variable access

ANSWER:CAnswer C

23. Level of generations that are generally kept are

A. two
B. three
C. four
D. five

ANSWER:BAnswer B

24. Straightforward allocation of storage space is consist of fixed length

A. item
B. advantage
C. previous records
D. disadvantage

ANSWER:BAnswer B

25. Use of passwords and access codes to safeguard files is classified as

A. software safeguards
B. physical safeguards
C. generation files
D. locked files

ANSWER:AAnswer A

26.Selection of files are easy in

A. direct access
B. sequential access
C. timed access
D. random access

ANSWER:AAnswer A

27. Items in key field of record is classified as

A. duplicate

B. key
C. copied column
D. copied row

ANSWER:BAnswer B

28.. Method of scanning of files for a desired record is classified as

A. linear research
B. quadratic search
C. search
D. non linear research

ANSWER:CAnswer C

29. If master and transaction file have keys in same order then it takes

A. less time
B. more time
C. many hours
D. many days

ANSWER:AAnswer A

30. Organized collection of records is considered as

A. record
B. file
C. rows
D. column

ANSWER:BAnswer B

31. Label which contains file name is classified as

A. header label
B. trailer label
C. end of file marker
D. start of file marker

ANSWER:AAnswer A

32. File used to update information in computer's master file is classified as

A. transaction file
B. direct file
C. order file
D. sequence file

ANSWER:AAnswer A

33. Files to be accessed from punched cards and paper tape is classified as

A. timed access file
B. random access file
C. direct access file
D. sequential access file

ANSWER:DAnswer D

34. Method by which program read from files and writes data into file is considered as

A. access
B. organization
C. recording
D. selection

ANSWER:AAnswer A

35. Type of field in which reserved set of characters are not determined is classified as

A. stable length
B. file length
C. variable length
D. fixed length

ANSWER:C

Ans 36.Type of access in which records are chosen in an order is classified as

A. timed access file
B. random access file
C. direct access file
D. sequential access file

ANSWER:C

37. Process of creating copy of stored data onto another disc is termed as creating

A. locked files
B. backup files
C. modified file
D. destroyed file

ANSWER:B

38. Directory which consists of list of files is classified as

A. list directory
B. directory part
C. catalogue
D. disc directory

ANSWER:C

39. Records would not be arranged in particular order before creating it is classified as

A. direct access file
B. sequence access file
C. timed access file
D. random access file

ANSWER:A

40. File which contains list of other file names is known as

A. path file
B. batched file
C. directory
D. path name

ANSWER:C

UNIT-V

1. With deadlock detection, requested resources are granted to

A. Resources
B. Programs
C. Processes

D. Users

ANSWER:C

ANSWERAAAnsweC

2. All deadlocks involve conflicting needs for

A. Resources
B. Users
C. Computers
D. Programs

ANSWER:A

3. Fastest form of inter process communication provided in UNIX is

A. Virtual Memory
B. Memory
C. Shared Memory
D. Main Memory

ANSWER:CAnswer C

4. Deadlock prevention strategies are very

A. Conservative
B. Straight
C. Complex
D. Simple

ANSWER:A

5. A consumable resource is one that can be

A. Access
B. Count
C. Created
D. Control

ANSWER:C

Answer C **6.** A signal is a software mechanism that informs a

A. Processor
B. User
C. Program
D. Process

ANSWER:D

7. No preemption means that a resource is released as

A. Terminated
B. Non Voluntarily
C. Voluntarily
D. None

ANSWER:C

8. Deadlock avoidance requires knowledge of future

A. Process
B. Resource
C. Program
D. Application

ANSWER:A

9. Circular wait condition can be prevented by defining a linear ordering of

A. Program Type
B. User Type
C. Resource Type
D. Process Type

ANSWER:C

10. An unsafe state is of course a state that is not

A. Require
B. Safe
C. Run
D. Control

ANSWER:B

Answer B **11.** Linux includes all of concurrency mechanism found in other

A. UNIX System
B. Linux System
C. Windows System
D. None

Ans ANSWER:Awer A

12. Dining philosophers problem can be seen as representative of

A. Users
B. Problems
C. Process
D. Application

ANSWER:BAnswer B

13. A direct method of deadlock prevention is to prevent occurrence of a circular

A. Data
B. Process
C. Movement
D. Wait

ANSWER:DAnswer D

14. To solve dining philosophers, monitor consist of two

A. Users
B. Programs
C. Applications
D. Procedures

ANSWER:DAnswer D

15. Conditions for deadlock, only one process may use a resource at a

A. Program
B. Time
C. Process
D. None

Answer B

16. A useful tool in characterizing and allocating of resources to process is the

A. User Allocation Graph
B. Time Allocation Graph
C. Resource Allocation Graph
D. Location Allocation Graph

ANSWER:CAnswer C

17. UNIX provides a variety of mechanisms for inter processor

A. Information
B. Communication
C. Process
D. Resource

ANSWER:BAnswer B

18. Deadlock involves reusable

A. Resources
B. Users
C. Time
D. Cost

ANSWER:AAnswer A

19. Once deadlock has been detected, some strategy is needed for

A. Control
B. Access
C. Recovery
D. None

ANSWER:CAnswer C

20. Common technique used for protecting a critical section in Linux is the

A. Lock Step
B. Program lock
C. Spinlock

D. None

ANSWER:C

Answer 21. For effective operating system, when to check for deadlock?

- **A.** every time a resource request is made
- **B.** at fixed time intervals
- **C.** both (a) and (b)
- **D.** none of the mentioned

ANSWER:C

22. A problem encountered in multitasking when a process is perpetually denied necessary resources is called:

- **A.** deadlock
- **B.** starvation
- **C.** inversion
- **D.** aging

ANSWER:B

23. Which one of the following is a visual (mathematical) way to determine the deadlock occurrence?

- **A.** resource allocation graph
- **B.** starvation graph
- **C.** inversion graph
- **D.** none of the mentioned

ANSWER:A

24. To avoid deadlock:

- **A.** there must be a fixed number of resources to allocate
- **B.** resource allocation must be done only once
- **C.** all deadlocked processes must be aborted
- **D.** inversion technique can be used

ANSWER:A

25. The number of resources requested by a process :

- **A.** must always be less than the total number of resources available in the system
- **B.** must always be equal to the total number of resources available in the system
- **C.** must not exceed the total number of resources available in the system
- **D.** must exceed the total number of resources available in the system
- ANSWER:C

C 26. The request and release of resources are _____.

- **A.** command line statements
- **B.** interrupts
- **C.** system calls
- **D.** special programs

ANSWER:C

27. Multithreaded programs are :

- **A.** lesser prone to deadlocks
- **B.** more prone to deadlocks
- **C.** not at all prone to deadlocks
- **D.** None of these

ANSWER:B

28. For Mutual exclusion to prevail in the system :

- **A.** at least one resource must be held in a non sharable mode
- **B.** the processor must be a uniprocessor rather than a multiprocessor
- **C.** there must be at least one resource in a sharable mode
- **D.** All of these

ANSWER:A

29. For a Hold and wait condition to prevail :

- **A.** A process must be not be holding a resource, but waiting for one to be freed, and then request to acquire it
- **B.** A process must be holding at least one resource and waiting to acquire additional resources that are being held by other processes
- **C.** A process must hold at least one resource and not be waiting to acquire additional resources
- **D.** None of these

ANSWER:B

30. Deadlock prevention is a set of methods :

- **A.** to ensure that at least one of the necessary conditions cannot hold
- **B.** to ensure that all of the necessary conditions do not hold
- **C.** to decide if the requested resources for a process have to be given or not
- **D.** to recover from a deadlock
- ANSWER:A

31. For non sharable resources like a printer, mutual exclusion :

- **A.** must exist
- **B.** must not exist
- **C.** may exist
- **D.** None of these

ANSWER:A

32. For sharable resources, mutual exclusion :

- **A.** is required
- **B.** is not required
- **C.** None of these

ANSWER:B

33. To ensure that the hold and wait condition never occurs in the system, it must be ensured that :

- **A.** whenever a resource is requested by a process, it is not holding any other resources
- **B.** each process must request and be allocated all its resources before it begins its execution
- **C.** a process can request resources only when it has none
- **D.** All of these

ANSWER:D

34. The disadvantage of a process being allocated all its resources before beginning its execution is :

- **A.** Low CPU utilization
- **B.** Low resource utilization
- **C.** Very high resource utilization
- **D.** None of these

ANSWER:B

35. To ensure no preemption, if a process is holding some resources and requests another resource that cannot be immediately allocated to it :

- **A.** then the process waits for the resources be allocated to it
- **B.** the process keeps sending requests until the resource is allocated to it
- **C.** the process resumes execution without the resource being allocated to it
- **D.** then all resources currently being held are preempted
- ANSWER:D

36. What is the reusable resource?

- **A.** that can be used by one process at a time and is not depleted by that use
- **B.** that can be used by more than one process at a time
- **C.** that can be shared between various threads
- **D.** none of the mentioned

ANSWER:A

37. Which of the following condition is required for deadlock to be possible?

- **A.** mutual exclusion
- **B.** a process may hold allocated resources while awaiting assignment of other resources
- **C.** no resource can be forcibly removed from a process holding it
- **D.** all of the mentioned
- ANSWER:D

38. A system is in the safe state if:

- **A.** the system can allocate resources to each process in some order and still avoid a deadlock
- **B.** there exist a safe sequence
- **C.** both (a) and (b)
- **D.** none of the mentioned

ANSWER:C

39. The circular wait condition can be prevented by:

- **A.** defining a linear ordering of resource types
- **B.** using thread

- **C.** using pipes
- **D.** all of the mentioned

ANSWER:A

40. Which one of the following is the deadlock avoidance algorithm?

- **A.** banker’s algorithm
- **B.** round-robin algorithm
- **C.** elevator algorithm
- **D.** karn’s algorithm

ANSWER:A