

Q.1. Identify the incorrect statement about compilation and execution of java programs

- javac helps in compiling the java program and creates the .class files
- java runs the programs using the bytecode in .class files
- java runs the programs using the source code in .java files
- javac is in the JDK package and java is in the JRE package

Q.2. What command is used to save the standard output in a file, as well as display it on the terminal?

- tee
- grep
- cat
- more

Q.3. Which command is used to change the I/O characteristics of the terminal?

- cty
- pty
- stty
- tty

Q.4. Which Linux command list the content of all sub directory?

- ls ~
- ls * /
- ls /
- ls ../

Q.5. Which component is responsible for optimizing byte-codes?

- JVM
- JDK
- JIT
- JRE

Q.6. Which of these cannot be declared static?

class object variable method

Q.7. Which of the following statements are incorrect?

 static methods can call other static methods only static methods must only access static data static methods can not refer to this or super in any way

when object of class is declared, each object contains its own copy of static variables

Q.8. When invoking a method with an object argument, _____ is passed.

 the contents of the object a copy of the object

the reference of the object

 the object is copied, then the reference of the copied object

Q.9. Choose the correct option.

 Recursion is always better than iteration.

Recursion uses more memory compared to iteration.

 Recursion uses less memory compared to iteration. Iterative function is always better and simpler to write than recursion.

Q.10. The operating system and the other processes are protected from being modified by an already running process because _____

 They are in different memory spaces They are in different logical addresses They have a protection algorithm

Every address generated by the CPU is being checked against the relocation and limit registers

Q.11. Where are placed the list of processes that are prepared to be executed and waiting?

 Job queue

Ready queue

 Execution queue Process queue

Q.12. By shell into the parameter, __ reads the first argument

- \$1
- \$3
- \$\$
- 1\$

Q.13. The program is interrupted by_____ command in appropriate way.

- kill
- SIGKILL
- trap
- INT

Q.14. Which system call can be used by a parent process to determine the termination of child process?

- wait()
- exit()
- fork()
- get()

Q.15. The entry of all the PCBs of the current processes is in _____

- Process Register
- Program Counter
- Process Table
- Process Unit

Q.16. If one thread opens a file with read privileges then:

- other threads in the another process can also read from that file
- other threads in the same process can also read from that file
- any other thread can not read from that file
- all of the mentioned

Q.17. A computer system supports 32-bit virtual addresses as well as 32-bit physical addresses. Since the virtual address space is of the same size as the physical address space, the operating system designers decide to get rid of the virtual memory entirely. Which one of the following is true?

- Efficient implementation of multi-user support is no longer possible
- The processor cache organization can be made more efficient now
- Hardware support for memory management is no longer needed
- CPU scheduling can be made more efficient now

Q.18. In Process Address Space, The variable names, constants, and instruction labels are the basic elements of _____.

- Symbolic addresses
- Relative addresses
- Physical addresses
- None of the above

Q.19. In which type of Fragmentation, Memory block assigned to process is bigger. Some portion of memory is left unused, as it cannot be used by another process.

- External fragmentation
- Internal fragmentation
- Both of the above
- None of the above

Q.20. A swapper manipulates _____ whereas the pager is concerned with individual _____ of a process.

- the entire process, parts
- all the pages of a process, segments
- the entire process, pages
- none of the mentioned

Q.21. Segment replacement algorithms are more complex than page replacement algorithms because _____

- Segments are better than pages
- Pages are better than segments
- Segments have variable sizes
- Segments have fixed sizes

Q.22. Command used to check shared memory is

- ipcs
- ipcs -mS
- ipcs -s
- ipcs -q

Q.23. One process requires M resource to complete a job. What should be the minimum number of resources available for N processes so that at least one process can continue to execute without blocking/waiting?

- M * N

- M * N - 1
- M * N + 1
- M

Q.24. Which of the following are the major disadvantages of requesting all resources while preventing deadlock?

- i) delay process initiation
- ii) future resources requirements must be known
- iii) subject to cyclic restart

- i and ii only
- ii and iii only
- i and iii only
- i, ii and iii

Q.25. Which of the following are the thread synchronization primitives supported by Solaris

- i) Mutual exclusion
- ii) Semaphores
- iii) Signals
- iv) Condition variables

- i, ii and iii only
- ii, iii and iv only
- i, ii and iv only
- All i, ii, iii and iv

Q.26. In which of the following Algorithm where the reference bit is used to determine whether a page has been recently referenced, and some page that has not been recently referenced is replaced?

- LRU Page replacement Algorithm
- FIFO page replacement Algorithm
- Optimal page replacement algorithm
- NRU Page replacement algorithm

Q.27. In which of the following Page replacement Policy, at every page fault the page replacement policy replaces the page that was loaded into memory earlier than any other page of the process?

- LRU Page replacement Algorithm
- FIFO page replacement Algorithm
- Optimal page replacement algorithm
- NRU Page replacement algorithm

Q.28. In UNIX, the set of masked signals can be set or cleared using the _____ function.

- sigprocmask

- sigmask
- sigmaskproc
- sigproc

Q.29. In most cases, if a process is sent a signal while it is executing a system call :

- the system call will continue execution and the signal will be ignored completely
- the system call is interrupted by the signal, and the signal handler comes in
- the signal has no effect until the system call completes
- none of the mentioned

Q.30. Both processes (the parent and the child) continue execution at the instruction after the fork(), with one difference: the return code for the fork() is ____ for the new (child) process, whereas the ____ process identifier of the child is returned to the parent.

- Negative integer, Zero
- Zero, Negative integer
- Nonzero integer, Zero
- Zero, nonzero integer

Q.31. When the operating system has performed a____ operation, it has two choices for selecting a process either admitting a newly created process or bring in a previously suspended process.

- Swapping-in
- Swapping-out
- Blocked-in
- Blocked-out

Q.32. There are the following statements that are given below, which of them are correct about Regular expressions in the Linux operating system?

- A. The regular expressions are strings that are used for pattern matching in some Linux commands.
- B. The regular expressions are also known as a regex.
- C. The regular expressions use some characters that each has a different meaning.
- D. Regular expressions can only be used in the Linux commands.

- A and B
- C and D
- A, B, and C
- A, B, C, and D

Q.33. Which of the following command is used to display only directories that exist in the current directory?

- ls -l | grep "^d"
- ls | grep "^d"

ls -l | grep "#d"

ls -l | grep "*d"

Q.34. A deadlock avoidance algorithm dynamically examines the _____ to ensure that a circular wait condition can never exist.

resource allocation state

system storage state

operating system

resources

Q.35. Applying the LRU page replacement to the following reference string.

1 2 4 5 2 1 2 4

The main memory can accommodate 3 pages and it already has pages 1 and 2.

Page 1 came in before page 2.

How many page faults will occur?

2

3

4

5

Q.36. Thread synchronization is required because _____

all threads of a process share the same address space

all threads of a process share the same global variables

all threads of a process can share the same files

all of the mentioned

Q.37. The following program results in the creation of?

```
main()
{
    if( fork() > 0 )
        sleep(100);
}
```

an orphan process

a zombie process

a process that executes forever

none of the mentioned

Q.38. In paged memory systems, if the page size is increased, then the internal fragmentation generally _____

becomes less

becomes more

remains constant

none of the mentioned

Q.39. When the entries in the segment tables of two different processes point to the same physical location _____

- the segments are invalid
- the processes get blocked
- segments are shared
- all of the mentioned

Q.40. The hardware mechanism that allows a device to notify the CPU is called _____

- polling
- interrupt
- driver
- controlling

Submit