MULTIPLE CHOICE QUESTIONS

UNDERSTANDING

1. Which among the following is not physical resource
    a. Printer
    b. Tape drive
    c. Files
    d. None of the above

2. Which among the following are necessary and sufficient condition for deadlock state
    a. Mutual exclusion
    b. Hold and wait
    c. No preemption
    d. All the above

3. Which necessary any sufficient condition for a deadlock states that "At least one resource must be held in a non-sharable model".
    a. Mutual exclusion
    b. Hold and wait
    c. No preemption
    d. Circular wait

4. Which necessary any sufficient condition for a deadlock state says that "A process must be holding at least one resource and waiting to acquire additional resources that are currently being held by other processes"
    a. Mutual exclusion
    b. Hold and wait
    c. No preemption
    d. Circular wait

5. Which necessary any sufficient condition for a deadlock state says that "Resources cannot be preempted"
    a. Mutual exclusion
    b. Hold and wait

c. No preemption
d. Circular wait

6. In resource allocation graph how do we represent a process
   a. Circle
   b. Square
   c. Rectangle
   d. Arrow

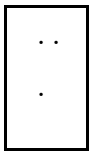
7. In resource allocation graph how do we represent a Resource type
   a. Circle
   b. Square
   c. Rectangle
   d. Arrow

8. In resource allocation graph how do we represent more than 1 instance of resource type
   a. Triangle within a square
   b. Dot within a square
   c. Star within a square
   d. Arrow

9. A directed edge from Process P_i to resource R_j($Pi \rightarrow Rj$) is called as
   a. Request edge
   b. Assignment edge
   c. Process edge
   d. Resource edge

10. A directed edge from Resource R_j to Process P_i($Rj \rightarrow Pi$) is called as
    a. Request edge
    b. Assignment edge
    c. Process edge
    d. Resource edge

11. Give the number of instance present here



a. 1
b. 2
c. 3
d. 0

12. How is claimed edge represented

a. Dashed lines
b. Solid lines
c. Double lines
d. None of the above

13. Full form of MMU

a. Memory Management Unit
b. Main Management Unit
c. Main Memory Unit
d. None of the above

APPLICATION

14. Which among the following allocates the hole that is large enough

a. First fit
b. Best fit
c. Worst fit
d. None of the above

15. Which among the following allocates the hole that is Smallest hole that is big enough

a. First fit
b. Best fit
c. Worst fit
d. None of the above

16. Which among the following allocates the largest hole

a. First fit
b. Best fit

c. Worst fit

d. None of the above

17. The size of the page is typically a power of

a. 2

b. 3

c. 4

d. 6

18. Full form of PTBR

a. Page table base registers

b. Page time base registers

c. Page table base reference

d. Page time base reference

19. Full form of TLB

a. Translation look aside buffer

b. Transfer look aside buffer

c. Translation late aside buffer

d. Transfer late aside buffer

20. The percentage of times particular page is found in TLB is called

a. Page ratio

b. Hit ratio

c. Percentage

d. None of the above

21. Which among the following process must be selected for the termination

a. minimum cost process

b. maximum cost process

c. Any of the process

d. First process

22. The Base register is called as

a. Limit Register

b. Relocation registers

c. Register

d. None of the above

23. Physical memory is divided into fixed sized blocks called

a. Pages

b. Frames

c. Blocks

d. Sections

24. Logical memory is divided into blocks of same size called

a. Pages

b. Frames

c. Blocks

d. Sections

25. Paging causes

a. Increase in context switch time

b. Decrease in context switch time

c. Context time doesn't alter

d. Context time is zero

FOUR MARKS QUESTIONS

UNDERSTANDING

1. Summarize different deadlock characterization.
2. With neat diagram explain resource allocation graph.
3. Discuss different conditions which can cause deadlock.
4. Illustrate the concept of memory allocation and compare different strategies.
5. Discuss different methods for handling deadlock.
6. Write a note on following
   a. Mutual exclusion
   b. Hold and Wait
7. Explain deadlock detection for Single Instance of each Resource Type.

APPLICATION

8. Illustrate deadlock system model.
9. Demonstrate different deadlock process state.
10. Demonstrate swapping concept.
11. Give a brief outline about paging concept.
12. write a note on fragmentation and segmentation.
13. Show how resource allocation graph helps in deadlock avoidance.