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Examination	: B.Tech, V Semester	Branch	:	IT
Course name	: Real Time Operating System	Course code	:	17IT90
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UNIT II OBJECTIVE QUESTIONS

- The size of the pages in the paging scheme is
 - variable
 - fixed**
 - both variable and fixed
 - none
- To convert linear addresses into physical addresses, the mechanism that the paging unit uses is
 - linear conversion mechanism
 - one level table mechanism
 - physical conversion mechanism
 - two level table mechanism**
- The size of each page table is of
 - 2 Kbytes
 - 2 bytes
 - 4 Kbytes**
 - 4 bytes
- The starting address of the segment in physical memory is decided by
 - physical memory
 - segment descriptors
 - operating system**
 - base address
- The address loaded into the memory address register of the memory is referred to as :
 - Physical address**
 - Logical address
 - Neither physical nor logical
 - None of the mentioned

6. The run time mapping from virtual to physical addresses is done by a hardware device called the :
- a) Virtual to physical mapper
 - b) Memory management unit**
 - c) Memory mapping unit
 - d) None of the mentioned
7. The size of a process is limited to the size of :
- a) physical memory**
 - b) external storage
 - c) secondary storage
 - d) none of the mentioned
8. Swapping requires a _____
- a) motherboard
 - b) keyboard
 - c) monitor
 - d) backing store**
9. CPU fetches the instruction from memory according to the value of
- a) program counter**
 - b) status register
 - c) instruction register
 - d) program status word
10. What is compaction?
- a) a technique for overcoming internal fragmentation
 - b) a paging technique
 - c) a technique for overcoming external fragmentation**
 - d) a technique for overcoming fatal error
11. The main memory accommodates :
- a) operating system**
 - b) cpu
 - c) user processes
 - d) all of the mentioned
12. The operating system is :
- a) in the low memory
 - b) in the high memory
 - c) either low or high memory (depending on the location of interrupt vector)**
 - d) none of the mentioned
13. Using transient code, _____ the size of the operating system during program execution.
- a) increases
 - b) decreases
 - c) changes**
 - d) maintains

14. When memory is divided into several fixed sized partitions, each partition may contain _____
a) exactly one process
b) at least one process
c) multiple processes at once
d) none of the mentioned
15. A solution to the problem of external fragmentation is :
a) compaction
b) larger memory space
c) smaller memory space
d) none of the mentioned
16. 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
17. In there is no internal fragmentation and is more efficient use of main memory.
A) Fixed partitioning
B) Dynamic partitioning
C) Virtual memory paging
D) Simple segmentation
18. In almost all modern multi programming systems, principal operation of memory management involves a sophisticated scheme known as
A) memory partitioning
B) virtual memory
C) real memory
D) memory organization
19. Satisfaction of the relocation requirement increases the difficulty of satisfying the requirement.
A) Protection
B) Sharing
C) Logical Organization
D) Physical Organization
20. Physical memory is broken into fixed-sized blocks called _____
a) frames
b) pages
c) backing store
d) none of the mentioned
21. Logical memory is broken into blocks of the same size called _____
a) frames
b) pages

- c) backing store
 - d) none of the mentioned
22. Every address generated by the CPU is divided into two parts :
- a) frame bit & page number
 - b) page number & page offset**
 - c) page offset & frame bit
 - d) frame offset & page offset
23. Bit field can be defined as a group of
- a) 8 bits
 - b) 16 bits
 - c) 32 bits**
 - d) 64 bits
24. The integer word is defined as
- a) signed 8-bit data
 - b) unsigned 16-bit data
 - c) signed 16-bit data**
 - d) signed 32-bit data
25. The linear address is calculated by
- a) effective address + segment base address**
 - b) effective address – segment base address
 - c) effective address + physical address
 - d) effective address – physical address
26. Architecturally, speed modes present in Cortex-M processors are
- a) two**
 - b) three
 - c) four
 - d) five
27. Most of processors designed by ARM are
- a) 16 bit
 - b) 32 bit**
 - c) 64 bit
 - d) 8 bit
28. DMA controllers stands for
- a) Direct Memory Alternation Controller
 - b) Direct Memory Access Controller**
 - c) Direct Multi Access Controller
 - d) Double Memory Access Controller
29. Which is the true statement with respect to the function longjmp()?
- a) the function where setjmp() was called has terminated, then the results are**

undefined

- b) the function where setjmp() was called has terminated, then the results are defined
 - c) the function where jmp_buf was called has terminated, then the results are undefined
 - d) the function where jmp_buf was called has terminated, then the results are defined
30. How many times does the function longjmp() returns?
- a) once
 - b) twice
 - c) thrice
 - d) never**
31. Run time mapping from virtual to physical address is done by
- a) Memory management unit**
 - b) CPU
 - c) PCI
 - d) None of the mentioned
32. Which of the following functions allocates multiple blocks of memory, each block of the same size?
- a) malloc()
 - b) realloc()
 - c) calloc()**
 - d) free()
33. The number of arguments taken as input which allocating memory dynamically using malloc() is _____
- a) 0
 - b) 1**
 - c) 2
 - d) 3
34. If malloc() and calloc() are not type casted, the default return type is _____
- a) void***
 - b) void**
 - c) int*
 - d) char*
35. Pick out the correct statement with respect to the heap.
- a) Local variables are stored on the heap**
 - b) Static variables are stored on the heap
 - c) Heap is the data structure which is used to implement recursive function calls
 - d) Everything on the heap is anonymous
36. Garbage collector frees the programmer from worrying about _____
- a) Dangling pointers
 - b) Creating new objects
 - c) Memory leak**
 - d) Segmentation errors

37. In the absence of a exit condition in a recursive function, the following error is given

- _____
- a) Compile time error
- b) Run time error**
- c) Logical error
- d) No error

38. Dynamic loading is :

- a) loading multiple routines dynamically
- b) loading a routine only when it is called**
- c) loading multiple routines randomly
- d) none of the mentioned

39. The advantage of dynamic loading is that :

- a) A used routine is used multiple times
- b) An unused routine is never loaded**
- c) CPU utilization increases
- d) All of the mentioned

40. The _____ swaps processes in and out of the memory.

- a) Memory manager**
- b) CPU
- c) CPU manager
- d) User

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