Memory Management

1. What is Address Binding?
a) going to an address in memory
b) locating an address with the help of another address
c) binding two addresses together to form a new address in a different memory space
d) a mapping from one address space to another
View Answer

2. Binding of instructions and data to memory addresses can be done at _____
a) Compile time
b) Load time
c) Execution time
d) All of the mentioned
View Answer

3. If the process can be moved during its execution from one memory segment to another, then binding must be _____
a) delayed until run time
b) preponed to compile time
c) preponed to load time
d) none of the mentioned

4. What is Dynamic loading?
a) loading multiple routines dynamically
b) loading a routine only when it is called
c) loading multiple routines randomly
d) none of the mentioned

5. What is the advantage of dynamic loading?
a) A used routine is used multiple times
b) An unused routine is never loaded
c) CPU utilization increases
d) All of the mentioned

6. The idea of overlays is to _____
a) data that are needed at any given time
b) enable a process to be larger than the amount of memory allocated to it
c) keep in memory only those instructions
d) all of the mentioned
View Answer

7. The _____ must design and program the overlay structure.
a) programmer
b) system architect
c) system designer
d) none of the mentioned

8. The _____ swaps processes in and out of the memory.
a) Memory manager

b) CPU
c) CPU manager
d) User
9. If a higher priority process arrives and wants service, the memory manager can swap out the lower priority process to execute the higher priority process. When the higher priority process finishes, the lower priority process is swapped back in and continues execution. This variant of swapping is sometimes called?
a) priority swapping
b) pull out, push in
c) roll out, roll in
d) none of the mentioned
10. If binding is done at assembly or load time, then the process _____ be moved to different locations after being swapped out and in again.
a) can
b) must
c) can never
d) may

11. In a system that does not support swapping _____
a) the compiler normally binds symbolic addresses (variables) to relocatable addresses
b) the compiler normally binds symbolic addresses to physical addresses
c) the loader binds relocatable addresses to physical addresses
d) binding of symbolic addresses to physical addresses normally takes place during execution
12. Which of the following is TRUE?
a) Overlays are used to increase the size of physical memory
b) Overlays are used to increase the logical address space
c) When overlays are used, the size of a process is not limited to the size of the physical memory
d) Overlays are used whenever the physical address space is smaller than the logical address space

1. The address generated by the CPU is referred to as _____
a) Physical address
b) Logical address
c) Neither physical nor logical
d) None of the mentioned
2. The address loaded into the memory address register of the memory is referred to as _____
a) Physical address
b) Logical address
c) Neither physical nor logical

d) None of the mentioned

3. 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

4. The base register is also known as the _____
a) basic register
b) regular register
c) relocation register
d) delocation register

5. 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

6. If execution time binding is being used, then a process _____ be swapped to a different memory space.
a) has to be
b) can never
c) must
d) may

7. Swapping requires a _____
a) motherboard
b) keyboard
c) monitor
d) backing store

8. The backing store is generally a _____
a) fast disk
b) disk large enough to accommodate copies of all memory images for all users
c) disk to provide direct access to the memory images
d) all of the mentioned

9. The _____ consists of all processes whose memory images are in the backing store or in memory and are ready to run.
a) wait queue
b) ready queue
c) cpu
d) secondary storage

10. The _____ time in a swap out of a running process and swap in of a new process into the memory is very high.
a) context – switch
b) waiting
c) execution
d) all of the mentioned
View Answer
11. The major part of swap time is _____ time.
a) waiting
b) transfer
c) execution
d) none of the mentioned
View Answer
12. Swapping _____ be done when a process has pending I/O, or has to execute I/O operations only into operating system buffers.
a) must
b) can
c) must never
d) maybe
View Answer
13. Swap space is allocated _____
a) as a chunk of disk
b) separate from a file system
c) into a file system
d) all of the mentioned

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
View Answer
2. A memory buffer used to accommodate a speed differential is called _____
a) stack pointer
b) cache
c) accumulator
d) disk buffer
View Answer
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

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
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

6. The address of a page table in memory is pointed by _____
a) stack pointer
b) page table base register
c) page register
d) program counter
7. Program always deals with _____
a) logical address
b) absolute address
c) physical address
d) relative address
8. The page table contains _____
a) base address of each page in physical memory
b) page offset
c) page size
d) none of the mentioned
9. 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
10. Operating System maintains the page table for _____
a) each process
b) each thread
c) each instruction
d) each address

1. The main memory accommodates _____
a) operating system
b) cpu
c) user processes
d) all of the mentioned

2. What is the operating system?
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
View Answer
3. 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 the mentioned

4. 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 the mentioned
View Answer
5. 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 the mentioned

6. 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
View Answer
7. 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
View Answer
8. Using transient code, _____ the size of the operating system during program execution.
a) increases
b) decreases
c) changes
d) maintains
View Answer

9. 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
View Answer
10. In fixed size partition, the degree of multiprogramming is bounded by _____
a) the number of partitions
b) the CPU utilization
c) the memory size
d) all of the mentioned
View Answer
11. 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 the mentioned

1. 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 the mentioned
View Answer
2. A solution to the problem of external fragmentation is _____
a) compaction
b) larger memory space
c) smaller memory space
d) none of the mentioned
View Answer
3. 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 the mentioned

4. 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
View Answer
5. 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 the mentioned

6. _____ 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 the mentioned
View Answer

7. 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 the mentioned
View Answer

8. 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
View Answer

9. 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 the mentioned
View Answer

10. When the memory allocated to a process is slightly larger than the process, then _____
a) internal fragmentation occurs
b) external fragmentation occurs
c) both internal and external fragmentation occurs
d) neither internal nor external fragmentation occurs

1. Physical memory is broken into fixed-sized blocks called _____
a) frames
b) pages
c) backing store
d) none of the mentioned
View Answer

2. Logical memory is broken into blocks of the same size called _____
a) frames
b) pages
c) backing store
d) none of the mentioned
View Answer

3. Every address generated by the CPU is divided into two parts. They are _____
a) frame bit & page number
b) page number & page offset
c) page offset & frame bit
d) frame offset & page offset

4. The _____ is used as an index into the page table.
a) frame bit
b) page number
c) page offset
d) frame offset
View Answer

5. The _____ table contains the base address of each page in physical memory.
a) process
b) memory
c) page
d) frame

6. The size of a page is typically _____
a) varied
b) power of 2
c) power of 4
d) none of the mentioned
View Answer

7. If the size of logical address space is 2 to the power of m, and a page size is 2 to the power of n addressing units, then the high order _____ bits of a logical address designate the page number, and the _____ low order bits designate the page offset.
a) m, n
b) n, m
c) m – n, m
d) m – n, n
View Answer

8. With paging there is no _____ fragmentation.
a) internal
b) external
c) either type of
d) none of the mentioned
View Answer

9. The operating system maintains a _____ table that keeps track of how many frames have been allocated, how many are there, and how many are available.
a) page
b) mapping
c) frame
d) memory
View Answer

10. Paging increases the _____ time.
a) waiting

b) execution
c) context – switch
d) all of the mentioned
View Answer
11. Smaller page tables are implemented as a set of _____
a) queues
b) stacks
c) counters
d) registers
View Answer
12. The page table registers should be built with _____
a) very low speed logic
b) very high speed logic
c) a large memory space
d) none of the mentioned
View Answer
13. For larger page tables, they are kept in main memory and a _____ points to the page table.
a) page table base register
b) page table base pointer
c) page table register pointer
d) page table base
View Answer
14. For every process there is a _____
a) page table
b) copy of page table
c) pointer to page table
d) all of the mentioned
View Answer
15. Time taken in memory access through PTBR is _____
a) extended by a factor of 3
b) extended by a factor of 2
c) slowed by a factor of 3
d) slowed by a factor of 2

1. Each entry in a translation lookaside buffer (TLB) consists of _____
a) key
b) value
c) bit value
d) constant
View Answer
2. If a page number is not found in the TLB, then it is known as a _____
a) TLB miss
b) Buffer miss
c) TLB hit
d) All of the mentioned
View Answer

3. An _____ uniquely identifies processes and is used to provide address space protection for that process.
a) address space locator
b) address space identifier
c) address process identifier
d) none of the mentioned

4. The percentage of times a page number is found in the TLB is known as _____
a) miss ratio
b) hit ratio
c) miss percent
d) none of the mentioned
View Answer

5. Memory protection in a paged environment is accomplished by _____
a) protection algorithm with each page
b) restricted access rights to users
c) restriction on page visibility
d) protection bit with each page

6. When the valid – invalid bit is set to valid, it means that the associated page _____
a) is in the TLB
b) has data in it
c) is in the process's logical address space
d) is the system's physical address space
View Answer

7. Illegal addresses are trapped using the _____ bit.
a) error
b) protection
c) valid – invalid
d) access
View Answer

8. When there is a large logical address space, the best way of paging would be _____
a) not to page
b) a two level paging algorithm
c) the page table itself
d) all of the mentioned
View Answer

9. In a paged memory, the page hit ratio is 0.35. The required to access a page in secondary memory is equal to 100 ns. The time required to access a page in primary memory is 10 ns. The average time required to access a page is?
a) 3.0 ns
b) 68.0 ns
c) 68.5 ns
d) 78.5 ns
View Answer

10. To obtain better memory utilization, dynamic loading is used. With dynamic loading, a routine is not loaded until it is called. For implementing dynamic loading _____
a) special support from hardware is required
b) special support from operating system is essential
c) special support from both hardware and operating system is essential
d) user programs can implement dynamic loading without any special support from hardware or operating system
View Answer

11. In paged memory systems, if the page size is increased, then the internal fragmentation generally _____
a) becomes less
b) becomes more
c) remains constant
d) none of the mentioned

1. In segmentation, each address is specified by _____
a) a segment number & offset
b) an offset & value
c) a value & segment number
d) a key & value
View Answer

2. In paging the user provides only _____ which is partitioned by the hardware into _____ and _____
a) one address, page number, offset
b) one offset, page number, address
c) page number, offset, address
d) none of the mentioned
View Answer

3. Each entry in a segment table has a _____
a) segment base
b) segment peak
c) segment value
d) none of the mentioned

4. The segment base contains the _____
a) starting logical address of the process
b) starting physical address of the segment in memory
c) segment length
d) none of the mentioned
View Answer

5. The segment limit contains the _____
a) starting logical address of the process
b) starting physical address of the segment in memory
c) segment length
d) none of the mentioned

6. The offset 'd' of the logical address must be _____
a) greater than segment limit
b) between 0 and segment limit
c) between 0 and the segment number
d) greater than the segment number
View Answer

7. If the offset is legal _____
a) it is used as a physical memory address itself
b) it is subtracted from the segment base to produce the physical memory address
c) it is added to the segment base to produce the physical memory address
d) none of the mentioned
View Answer

8. When the entries in the segment tables of two different processes point to the same physical location _____
a) the segments are invalid
b) the processes get blocked
c) segments are shared
d) all of the mentioned
View Answer

9. The protection bit is 0/1 based on _____
a) write only
b) read only
c) read – write
d) none of the mentioned
View Answer

10. If there are 32 segments, each of size 1Kb, then the logical address should have _____
a) 13 bits
b) 14 bits
c) 15 bits
d) 16 bits
View Answer

11. Consider a computer with 8 Mbytes of main memory and a 128K cache. The cache block size is 4 K. It uses a direct mapping scheme for cache management. How many different main memory blocks can map onto a given physical cache block?
a) 2048
b) 256
c) 64
d) 8
View Answer

12. A multilevel page table is preferred in comparison to a single level page table for translating virtual address to physical address because _____
a) it reduces the memory access time to read or write a memory location
b) it helps to reduce the size of page table needed to implement the virtual address space of a process
c) it is required by the translation lookaside buffer
d) it helps to reduce the number of page faults in page replacement algorithms

Virtual Memory

1. Because of virtual memory, the memory can be shared among _____
a) processes
b) threads
c) instructions
d) none of the mentioned
View Answer

2. _____ 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
View Answer

3. The pager concerns with the _____
a) individual page of a process
b) entire process
c) entire thread
d) first page of a process

4. Swap space exists in _____
a) primary memory
b) secondary memory
c) cpu
d) none of the mentioned
View Answer

5. 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

6. Effective access time is directly proportional to _____
a) page-fault rate
b) hit ratio
c) memory access time
d) none of the mentioned
View Answer

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
View Answer

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
View Answer

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
View Answer

10. Working set model for page replacement is based on the assumption of _____
a) modularity
b) locality
c) globalization
d) random access

1. Virtual memory allows _____
a) execution of a process that may not be completely in memory
b) a program to be smaller than the physical memory
c) a program to be larger than the secondary storage
d) execution of a process without being in physical memory
View Answer

2. The instruction being executed, must be in _____
a) physical memory
b) logical memory
c) physical & logical memory
d) none of the mentioned
View Answer

3. Error handler codes, to handle **unusual** errors are _____
a) almost never executed
b) executed very often
c) executed periodically
d) none of the mentioned

4. The ability to execute a program that is only partially in memory has benefits like _____
a) The amount of physical memory cannot put a constraint on the program
b) Programs for an extremely large virtual space can be created
c) Throughput increases
d) All of the mentioned
View Answer

5. In virtual memory. the programmer _____ of overlays.
a) has to take care
b) does not have to take care
c) all of the mentioned
d) none of the mentioned

6. Virtual memory is normally implemented by _____
a) demand paging
b) buses
c) virtualization
d) all of the mentioned
View Answer

7. Segment replacement algorithms are more complex than page replacement algorithms because _____
a) Segments are better than pages
b) Pages are better than segments
c) Segments have variable sizes
d) Segments have fixed sizes
View Answer

8. A swapper manipulates _____ whereas the pager is concerned with individual _____ of a process.
a) the entire process, parts
b) all the pages of a process, segments
c) the entire process, pages
d) none of the mentioned
View Answer

9. Using a pager _____
a) increases the swap time
b) decreases the swap time
c) decreases the swap time & amount of physical memory needed
d) increases the amount of physical memory needed
View Answer

10. The valid – invalid bit, in this case, when valid indicates?
a) the page is not legal
b) the page is illegal
c) the page is in memory
d) the page is not in memory
View Answer

11. A page fault occurs when?
a) a page gives inconsistent data
b) a page cannot be accessed due to its absence from memory
c) a page is invisible
d) all of the mentioned
View Answer

12. When a page fault occurs, the state of the interrupted process is _____
a) disrupted
b) invalid
c) saved
d) none of the mentioned
View Answer

13. When a process begins execution with no pages in memory?
a) process execution becomes impossible
b) a page fault occurs for every page brought into memory
c) process causes system crash

d) none of the mentioned
14. If the memory access time is denoted by 'ma' and 'p' is the probability of a page fault (0 <= p <= 1). Then the effective access time for a demand paged memory is _____
a) p x ma + (1-p) x page fault time
b) ma + page fault time
c) (1-p) x ma + p x page fault time
d) none of the mentioned
15. When the page fault rate is low _____
a) the turnaround time increases
b) the effective access time increases
c) the effective access time decreases
d) turnaround time & effective access time increases
16. Locality of reference implies that the page reference being made by a process _____
a) will always be to the page used in the previous page reference
b) is likely to be one of the pages used in the last few page references
c) will always be one of the pages existing in memory
d) will always lead to page faults

1. Which of the following page replacement algorithms suffers from Belady's Anomaly?
a) Optimal replacement
b) LRU
c) FIFO
d) Both optimal replacement and FIFO
2. A process refers to 5 pages, A, B, C, D, E in the order : A, B, C, D, A, B, E, A, B, C, D, E. If the page replacement algorithm is FIFO, the number of page transfers with an empty internal store of 3 frames is?
a) 8
b) 10
c) 9
d) 7

3. A process refers to 5 pages, A, B, C, D, E in the order : A, B, C, D, A, B, E, A, B, C, D, E. If the page replacement algorithm is FIFO, the number of page frames is increased to 4, then the number of page transfers _____
a) decreases
b) increases
c) remains the same
d) none of the mentioned
4. A memory page containing a heavily used variable that was initialized very early and is in constant use is removed, then the page replacement algorithm used is _____
a) LRU
b) LFU

c) FIFO
d) None of the mentioned
5. A virtual memory system uses First In First Out (FIFO) page replacement policy and allocates a fixed number of frames to a process. Consider the following statements.
P : Increasing the number of page frames allocated to a process sometimes increases the page fault rate
Q : Some programs do not exhibit locality of reference
Which of the following is TRUE?
a) Both P and Q are true, and Q is the reason for P
b) Both P and Q are true, but Q is not the reason for P
c) P is false but Q is true
d) Both P and Q are false

6. Users _____ that their processes are running on a paged system.
a) are aware
b) are unaware
c) may unaware
d) none of the mentioned
7. If no frames are free, _____ page transfer(s) is/are required.
a) one
b) two
c) three
d) four
8. When a page is selected for replacement, and its modify bit is set _____
a) the page is clean
b) the page has been modified since it was read in from the disk
c) the page is dirty
d) the page has been modified since it was read in from the disk & page is dirty
9. The aim of creating page replacement algorithms is to _____
a) replace pages faster
b) increase the page fault rate
c) decrease the page fault rate
d) to allocate multiple pages to processes
10. A FIFO replacement algorithm associates with each page the _____
a) time it was brought into memory
b) size of the page in memory
c) page after and before it
d) all of the mentioned
11. What is the Optimal page – replacement algorithm?
a) Replace the page that has not been used for a long time
b) Replace the page that has been used for a long time

c) Replace the page that will not be used for a long time
d) None of the mentioned
12. Optimal page – replacement algorithm is difficult to implement, because _____
a) it requires a lot of information
b) it requires future knowledge of the reference string
c) it is too complex
d) it is extremely expensive
13. LRU page – replacement algorithm associates with each page the _____
a) time it was brought into memory
b) the time of that page's last use
c) page after and before it
d) all of the mentioned
14. For 3 page frames, the following is the reference string:
7 0 1 2 0 3 0 4 2 3 0 3 2 1 2 0 1 7 0 1
How many page faults does the LRU page replacement algorithm produce?
a) 10
b) 15
c) 11
d) 12
15. What are the two methods of the LRU page replacement policy that can be implemented in hardware?
a) Counters
b) RAM & Registers
c) Stack & Counters
d) Registers

1. When using counters to implement LRU, we replace the page with the _____
a) smallest time value
b) largest time value
c) greatest size
d) none of the mentioned
2. In the stack implementation of the LRU algorithm, a stack can be maintained in a manner _____
a) whenever a page is used, it is removed from the stack and put on bottom
b) the bottom of the stack is the LRU page
c) the top of the stack contains the LRU page and all new pages are added to the top
d) none of the mentioned
3. There is a set of page replacement algorithms that can never exhibit Belady's Anomaly, called _____
a) queue algorithms
b) stack algorithms

c) string algorithms
d) none of the mentioned

4. 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?
a) 2
b) 3
c) 4
d) 5
View Answer

5. Increasing the RAM of a computer typically improves performance because
_____
a) Virtual memory increases
b) Larger RAMs are faster
c) Fewer page faults occur
d) None of the mentioned

6. The essential content(s) in each entry of a page table is/are _____
a) Virtual page number
b) Page frame number
c) Both virtual page number and page frame number
d) Access right information
View Answer

7. The minimum number of page frames that must be allocated to a running process in a
virtual memory environment is determined by _____
a) the instruction set architecture
b) page size
c) physical memory size
d) number of processes in memory
View Answer

8. What is the reason for using the LFU page replacement algorithm?
a) an actively used page should have a large reference count
b) a less used page has more chances to be used again
c) it is extremely efficient and optimal
d) all of the mentioned
View Answer

9. What is the reason for using the MFU page replacement algorithm?
a) an actively used page should have a large reference count
b) a less used page has more chances to be used again
c) it is extremely efficient and optimal
d) all of the mentioned
View Answer

10. The implementation of the LFU and the MFU algorithm is very uncommon because
_____

a) they are too complicated
b) they are optimal
c) they are expensive
d) all of the mentioned

1. The minimum number of frames to be allocated to a process is decided by the
_____
a) the amount of available physical memory
b) operating System
c) instruction set architecture
d) none of the mentioned
View Answer
2. When a page fault occurs before an executing instruction is complete if _____
a) the instruction must be restarted
b) the instruction must be ignored
c) the instruction must be completed ignoring the page fault
d) none of the mentioned
View Answer
3. Consider a machine in which all memory reference instructions have only one memory
address, for them we need at least _____ frame(s).
a) one
b) two
c) three
d) none of the mentioned

4. The maximum number of frames per process is defined by _____
a) the amount of available physical memory
b) operating System
c) instruction set architecture
d) none of the mentioned
View Answer
5. The algorithm in which we split m frames among n processes, to give everyone an equal
share, m/n frames is known as _____
a) proportional allocation algorithm
b) equal allocation algorithm
c) split allocation algorithm
d) none of the mentioned

6. The algorithm in which we allocate memory to each process according to its size is
known as _____
a) proportional allocation algorithm
b) equal allocation algorithm
c) split allocation algorithm
d) none of the mentioned
View Answer
7. With either equal or proportional algorithm, a high priority process is treated
_____ a low priority process.

a) greater than
b) same as
c) lesser than
d) none of the mentioned
View Answer
8. _____ replacement allows a process to select a replacement frame from the set of all frames, even if the frame is currently allocated to some other process.
a) Local
b) Universal
c) Global
d) Public
View Answer
9. _____ replacement allows each process to only select from its own set of allocated frames.
a) Local
b) Universal
c) Global
d) Public
View Answer
10. One problem with the global replacement algorithm is that _____
a) it is very expensive
b) many frames can be allocated to a process
c) only a few frames can be allocated to a process
d) a process cannot control its own page – fault rate
View Answer
11. _____ replacement generally results in greater system throughput.
a) Local
b) Global
c) Universal
d) Public

1. A process is thrashing if _____
a) it spends a lot of time executing, rather than paging
b) it spends a lot of time paging than executing
c) it has no memory allocated to it
d) none of the mentioned
View Answer
2. Thrashing _____ the CPU utilization.
a) increases
b) keeps constant
c) decreases
d) none of the mentioned
View Answer
3. What is a locality?
a) a set of pages that are actively used together
b) a space in memory

c) an area near a set of processes
d) none of the mentioned

4. When a subroutine is called _____
a) it defines a new locality
b) it is in the same locality from where it was called
c) it does not define a new locality
d) none of the mentioned
View Answer

5. A program is generally composed of several different localities, which _____ overlap.
a) may
b) must
c) do not
d) must not

6. In the working set model, for:
2 6 1 5 7 7 7 7 5 1 6 2 3 4 1 2 3 4 4 4 3 4 3 4 4 4 1 3 2 3
if DELTA = 10, then the working set at time t1 (….7 5 1) is?
a) {1, 2, 4, 5, 6}
b) {2, 1, 6, 7, 3}
c) {1, 6, 5, 7, 2}
d) {1, 2, 3, 4, 5}
View Answer

7. The accuracy of the working set depends on the selection of _____
a) working set model
b) working set size
c) memory size
d) number of pages in memory
View Answer

8. If working set window is too small _____
a) it will not encompass entire locality
b) it may overlap several localities
c) it will cause memory problems
d) none of the mentioned
View Answer

9. If working set window is too large _____
a) it will not encompass entire locality
b) it may overlap several localities
c) it will cause memory problems
d) none of the mentioned
View Answer

10. If the sum of the working – set sizes increases, exceeding the total number of available frames _____
a) then the process crashes
b) the memory overflows
c) the system crashes

d) the operating system selects a process to suspend
11. Consider the following page reference string.
1 2 3 4 2 1 5 6 2 1 2 3 7 6 3 2 1 2 3 6
For LRU page replacement algorithm with 4 frames, the number of page faults is?
a) 10
b) 14
c) 8
d) 11
12. Consider the following page reference string.
1 2 3 4 2 1 5 6 2 1 2 3 7 6 3 2 1 2 3 6
For LRU page replacement algorithm with 5 frames, the number of page faults is?
a) 10
b) 14
c) 8
d) 11
13. Consider the following page reference string.
1 2 3 4 2 1 5 6 2 1 2 3 7 6 3 2 1 2 3 6
For FIFO page replacement algorithms with 3 frames, the number of page faults is?
a) 16
b) 15
c) 14
d) 11
14. Consider the following page reference string.
1 2 3 4 2 1 5 6 2 1 2 3 7 6 3 2 1 2 3 6
For FIFO page replacement algorithms with 4 frames, the number of page faults is?
a) 16
b) 15
c) 14
d) 11
15. Consider the following page reference string.
1 2 3 4 2 1 5 6 2 1 2 3 7 6 3 2 1 2 3 6
For Optimal page replacement algorithms with 3 frames, the number of page faults is?
a) 16
b) 15
c) 14
d) 11