QUIZ ON RTOS AND ITS CONCEPTS

1. **In real time operating system**
   a) all processes have the same priority
   b) a task must be serviced by its deadline period
   c) process scheduling can be done only once
   d) kernel is not required

2. **Hard real time operating system has ____ jitter than a soft real time operating system.**
   a) less
   b) more
   c) equal
   d) none of the mentioned

3. **For real time operating systems, interrupt latency should be**
   a) minimal
   b) maximum
   c) zero
   d) dependent on the scheduling

4. **In rate monotonic scheduling**
   a) shorter duration job has higher priority
   b) longer duration job has higher priority
   c) priority does not depend on the duration of the job
   d) none of the mentioned

5. **In which scheduling certain amount of CPU time is allocated to each process?**
   a) earliest deadline first scheduling
   b) proportional share scheduling
   c) equal share scheduling
   d) none of the mentioned

6. **The problem of priority inversion can be solved by**
   a) priority inheritance protocol
   b) priority inversion protocol
   c) both (a) and (b)
   d) none of the mentioned

7. **Time duration required for scheduling dispatcher to stop one process and start another is known as**
   a) process latency
   b) dispatch latency
   c) execution latency
   d) interrupt latency

8. **Time required to synchronous switch from the context of one thread to the context of another thread is called**

a) threads fly-back time

b) jitter

c) context switch time

d) none of the mentioned

9. **Which one of the following is a real time operating system?**

a) RTLinux

b) VxWorks

c) windows CE

d) all of the mentioned

10. **VxWorks is centered around**

a) wind microkernel

b) linux kernel

c) unix kernel

d) none of the mentioned

11. **A Process Control Block(PCB) does not contain which of the following :**

a) Code

b) Stack

c) Heap

d) Data

e) Program Counter

f) Process State

g) I/O status information

h) bootstrap program

12. **The number of processes completed per unit time is known as _____.**

a) Output

b) Throughput

c) Efficiency

d) Capacity

13. **The state of a process is defined by :**

a) the final activity of the process

b) the activity just executed by the process

c) the activity to next be executed by the process

d) the current activity of the process

14. **Which of the following is not the state of a process ?**

a) New

b) Old

c) Waiting

d) Running

e) Ready

f) Terminated

15.The Process Control Block is :
   a) Process type variable
   b) Data Structure
   c) a secondary storage section
   d) a Block in memory

16.Preemptive, priority based scheduling guarantees :
   a) hard real time functionality
   b) soft real time functionality
   c) protection of memory
   d) None of these

17.Real time systems must have :
   a) preemptive kernels
   b) non preemptive kernels
   c) a or b
   d) neither a nor b

18.Event latency is :
   a) the amount of time an event takes to occur from when the system started
   b) the amount of time from the event occurance till the system stops
   c) the amount of time from event occurance till the event crashes
   d) the amount of time that elapses from when an event occurs to when it is serviced.

19.The amount of time required for the scheduling dispatcher to stop one process and start another is known as _____.
   a) event latency
   b) interrupt latency
   c) dispatch latency
   d) context switch

20.The most effective technique to keep dispatch latency low is to :
   a) provide non preemptive kernels
   b) provide preemptive kernels
   c) make it user programmed
   d) run less number of processes at a time

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