ERTOS MCQS

**Unit 4**

**1. What is the Real-time systems?**  
A. Used for monitoring events as they occur  
B. Primarily used on mainframe computers   
C. Used for real-time interactive users  
D. Used for program development

**A**

**2. The \_\_\_\_\_\_\_\_\_\_ Operating System pays more attention to the meeting of the**[**time**](https://t4tutorials.com/real-time-operating-systems-hard-vs-soft-rtos/)**limits.**  
A. Network  
B. Distributed  
C. Online  
D. Real-time

**D**

3. In real time operating system is\_\_\_\_\_\_\_\_\_\_  
A. kernel is not required  
B. [process scheduling](https://t4tutorials.com/round-robin-process-scheduling-algorithm-in-operating-systems/) can be done only once task  
C. must be serviced by its deadline period  
D. all processes have the same priority

**C**

**4. The**[**interrupt**](https://t4tutorials.com/xceptions-and-interrupts-in-operating-systems/)**latency should be \_\_\_\_\_\_\_\_\_  for real time operating systems.**  
A. maximum  
B. minimal  
C. dependent on the scheduling  
D. zero

**B**

**5. Which**[**scheduling**](https://t4tutorials.com/cpu-scheduling-solved-mcqs-questions-answers/)**amount of CPU time is allocated to each process?**  
A. equal share scheduling  
B. none of the mentioned  
C. earliest deadline first scheduling  
D. proportional share scheduling

**D**

**6. What is the Use of the robot by car manufacturing companies the example of…**  
A. applicant controlled computers  
B. user-controlled computers  
C. machine controlled computers  
D. [network](https://t4tutorials.com/computer-network-mcqs/) controlled computers

**C**

**7. When the System**[**processes**](https://t4tutorials.com/os-execution/)**data instructions without any delay is called as**  
A. online system  
B. real-time system  
C. instruction system  
D. offline system

**B**

8. Which single task of a particular application is process is a type of processor…  
A. applicant processor  
B. one task processor  
C. [real time](https://t4tutorials.com/real-time-operating-systems-hard-vs-soft-rtos) processor  
D. dedicated processor

**D**

**9. The Designing of system take into considerations of\_\_\_\_\_\_\_\_\_.**  
A. operating system  
B. communication system  
C. hardware  
D. all of the above  
E. none of these

**D**

**10. The Time duration required for scheduling dispatcher to stop one process and start another is called…**  
A. dispatch latency  
B. process latency  
C. interrupt latency  
D. execution latency

**A**

**11. Which of the following is correct in real time?**  
A. non pre-emptive kernels  
B. pre-emptive kernels  
C. neither pre-emptive nor non pre-emptive kernels  
D. pre-emptive kernels or non-pre-emptive kernels

**B**

**12. Which of the following is Pre-emptive, priority based scheduling guarantees?**  
A. protection of memory  
B. hard real-time functionality  
C. soft real-time functionality  
D. all of the above  
E. none of these

**C**

13. Which one of the following is a real time operating system? Select one:

a. RTLinux b. VxWorks c. Windows CE d. All of the mentioned

Ans - d

14. Earliest deadline first (EDF) is a dynamic priority scheduling algorithm used in real-time operating systems to place processes in a priority queue.

Select one: a. True b. False

Ans – True

15. Consider the following inequalities with respect to a Real-Time system with N tasks and total utilization u 1. u < N(21/N – 1) 2. u<1 which among the following is TRUE for a RM schedulable task set. Select one:

a. Both 1 and 2 are necessary b. 1 is necessary and 2 is sufficient c. 2 is necessary and 1 is sufficient d. Both 1 and 2 are sufficient

Ans – c

16. Time required to synchronous switch from the context of one thread to the context of another thread is called Select one:

a. threads fly-back time b. jitter c. context switch time d. none of the mentioned

Ans – c

17. Scheduling of tasks is a very important consideration in RTOS. Which of the following best described the scheduling policy design: Select one:

a. The scheduler must follow a pre-emptive policy b. The scheduler must not use pre-emptive policy option c. The scheduler must not only use pre-emptive policy options with the priority considerations. d. The scheduler must not use pre-emptive policy option, but must employ priority consideration.

Ans – d

18. soft real time operating system has \_\_\_ jitter than a Hard real time operating system Select one:

Ans – more

19. What is Slack time?

a. is the amount of time left after a job if the job was started now. b. is the amount of time left before a job if the job was started now. c. is the amount of time left from a job if the job was started now. d. is the amount of time left required by a job if the job was started now.

Ans – a

20. VxWorks is centred around Select one:

a. wind microkernel b. linux kernel c. unix kernel d. none of the mentioned

Ans – a

21. 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

Ans – a

22. 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

Ans – b

23.  The problem of priority inversion can be solved by \_\_\_\_\_\_\_\_\_\_\_\_  
a) priority inheritance protocol  
b) priority inversion protocol  
c) both priority inheritance and inversion protocol  
d) none of the mentioned

Ans – a