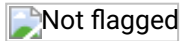# Question 1

Complete
Mark 1 out of 1
Flag question

Question text

Which one of the following is a real time operating system?
Select one:
- ○ A. RTLinux
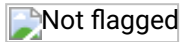- ○ B. VxWorks
- ○ C. Windows CE
- ◉ D. All of the mentioned

Feedback

The correct answer is: All of the mentioned

Question 2

Complete
Mark 0 out of 1
Flag question

Question text

Preemptive, priority based scheduling guarantees
Select one:
- ◉ A. Hard real time functionality
- ○ B. Soft real time functionality

C. Protection of memory
D. None of the above

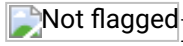**Feedback**

The correct answer is: Soft real time functionality

Question 3

Complete
Mark 1 out of 1

Question text

In a _____ real time system, it is guaranteed that critical real time tasks will be completed within their deadlines.
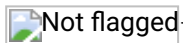Select one:
A. Soft
B. Hard
C. Critical
D. None of the above

Feedback

The correct answer is: Hard

Question 4

Complete
Mark 1 out of 1

Question text

Some of the properties of real time systems include :
Select one:
A. Single purpose
B. Inexpensively mass produced
C. Small size
D. All of the above

Feedback

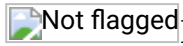The correct answer is: All of the above

Question 5

Complete

Mark 0 out of 1

Not flagged Flag question

Question text

If a set of processes cannot be scheduled by rate monotonic scheduling algorithm, then :

Select one:

- ◉ A. They can be scheduled by EDF algorithm
- ○ B. They cannot be scheduled by EDF algorithm
- ○ C. They cannot be scheduled by any other algorithm
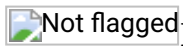- ○ D. None of the above

Feedback

The correct answer is: They cannot be scheduled by any other algorithm

Question 6

Complete

Mark 1 out of 1

Not flagged Flag question

Question text

The method mlock() does _____ .

Select one:

- ○ A. Lock Complete process address space.
- ◉ B. Lock specified region of process address space.
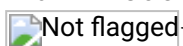- ○ C. Lock the whole process.
- ○ D. None of the Above.

Feedback

The correct answer is: Lock specified region of process address space.

Question 7

Complete

Mark 1 out of 1

Not flagged Flag question

Question text

Priority inversion can be happen if _____.

Select one:
- ● A. Low priority process locks a semaphore needed by high priority process.
- ○ B. High priority process locks a semaphore needed by low priority process.
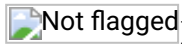- ○ C. Both A and B are possible
- ○ D. None of the above

Feedback

The correct answer is: Low priority process locks a semaphore needed by high priority process.

Question 8

Complete
Mark 0 out of 1
Not flagged Flag question

Question text

In typical RTOS, tasks runs in _____.
Select one:
- ○ A. User Mode
- ○ B. Abort Mode
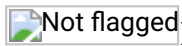- ○ C. Privilleged mode
- ● D. None of the above

Feedback

The correct answer is: Privilleged mode

Question 9

Complete
Mark 1 out of 1
Not flagged Flag question

Question text

Which RTOS scheduling algorithm cannot use CPU upto 100% ?
Select one:
- ○ A. Propostional share
- ○ B. Earliest deadline frist
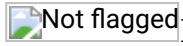- ● C. Rate Monotonic Scheduling
- ○ D. None of the above

Feedback

The correct answer is: Rate Monotonic Scheduling

Question 10

Complete

Mark 1 out of 1

Question text

RTAI supports _____ architectures.
Select one:
- ○ A. X86
- ○ B. X86_64
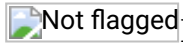- ○ C. Power PC
- ○ D. ARM cortex M3
- ⦿ E. All of the Above

Feedback

The correct answer is: All of the Above

Question 11

Complete

Mark 0 out of 1

Question text

Which of the following function is used to create real time task in RTAI?
Select one:
- ○ A. rt_task_init()
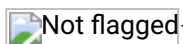- ○ B. rt_init_task()
- ⦿ C. rtai_init_task()
- ○ D. rtai_task_init()

Feedback

The correct answer is: rt_init_task()

Question 12

Complete

Mark 1 out of 1

Question text

Real time systems must have _____ .
Select one:
- ◉ A. Preemptive kernels
- ○ B. Non preemptive kernels
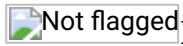- ○ C. Neither preemptive nor non preemptive kernels
- ○ D. None of the above

Feedback

The correct answer is: Preemptive kernels

Question 13

Complete
Mark 0 out of 1
Not flagged Flag question

Question text

A task execting in the ready state cannot be moved into which of the following states?
Select one:
- ○ A. wait, ISR state
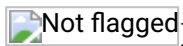- ○ B. Running state
- ◉ C. Dormant state
- ○ D. Both A and B

Feedback

The correct answer is: wait, ISR state

Question 14

Complete
Mark 1 out of 1
Not flagged Flag question

Question text

What parameter is of less significance with reference to RTOS?
Select one:
- ○ A. Interrupt latency
- ○ B. Interrupt recovery time
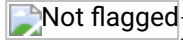- ○ C. Interrupt response time
- ◉ D. Throughput

Feedback

The correct answer is: Throughput

Question 15

Complete
Mark 1 out of 1
Not flagged Flag question

Question text

Which of the following can be applied to periodic scheduling?
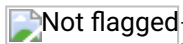Select one:
- ⦿ A. EDF
- ○ B. LL
- ○ C. LST
- ○ D. EDD

Feedback

The correct answer is: EDF

Question 16

Complete
Mark 0 out of 1
Not flagged Flag question

Question text

Which linux service gets called from RT task to creates a real time fifo (RT-FIFO).
Select one:
- ○ A. rtf_create()
- ⦿ B. rtfifo_create()
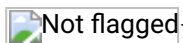- ○ C. rtf_create_task()
- ○ D. rtfifo_create_task()

Feedback

The correct answer is: rtf_create()

Question 17

Complete
Mark 1 out of 1
Not flagged Flag question

Question text

A _____ of a task is the time at which the release of a task will produce the largest response time.
Select one:
○ A. soft instance
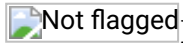○ B. hard instance
◉ C. critical instance
○ D. both A and B

Feedback

The correct answer is: critical instance

Question 18

Complete
Mark 0 out of 1
Not flagged Flag question

Question text

Reentrant function is one that
Select one:
○ A. should be executed by only one task at a time otherwise data corruption occurs
○ B. will allow 2 tasks to use it but not more than 2
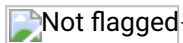○ C. will allow any number of taskd to execute it without data corruption
◉ D. Both A and B

Feedback

The correct answer is: will allow any number of taskd to execute it without data corruption

Question 19

Complete
Mark 1 out of 1
Not flagged Flag question

Question text

RTOS handles interrupts in
Select one:
◉ A. Deterministic Time
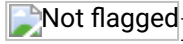○ B. Non Deterministic time
○ C. Constant time

D. None of the Above

Feedback

The correct answer is: Deterministic Time

Question 20

Complete
Mark 1 out of 1
Not flagged Flag question

Question text

In proportional share algorithm, CPU time = 100 shares (T = 100) P1 = 50 shares P2 = 15 shares P3 = 20 shares What is the cpu utilzation ?
Select one:
A. 0.079
B. 0.85
C. 0.085
D. 0.79

Feedback

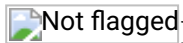The correct answer is: 0.85

Question 21

Complete
Mark 0 out of 1
Not flagged Flag question

Question text

Interrupt jitter means,
Select one:
A. The variation in interrupt latency
B. The variation in interrupt arrival time
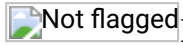C. The interrupt latency
D. None of the above

Feedback

The correct answer is: The variation in interrupt latency

Question 22

Complete

Mark 0 out of 1

Question text

Which scheduling algorithm is an optimal scheduling policy for mono-processor system?

Select one:
- ⦿ A. preemptive algorithm
- ◯ B. LST (Least stack time)
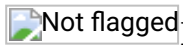- ◯ C. EDD (Earlist due date)
- ◯ D. LL (Least laxity)

Feedback

The correct answer is: LL (Least laxity)

Question 23

Complete

Mark 1 out of 1

Question text

Identify which of these are real-time applications scenarios:

Select one:
- ◯ A. An on-line bus ticketing system
- ◯ B. Printing of annual report of a company's annual report
- ◯ C. Reconciling a day's transactions in an account book of a small company
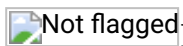- ⦿ D. An aircrafts' yaw control system

Feedback

The correct answer is: An aircrafts' yaw control system

Question 24

Complete

Mark 1 out of 1

Question text

Which algorithm is non-preemptive and can be used with a mono processor?

Select one:

A. LDF
B. pre-emptive
C. aperiodic
D. LL

Feedback
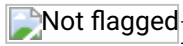
The correct answer is: LDF

Question 25

Complete
Mark 0 out of 1

Not flagged Flag question

Question text

Deadline interval – execution time =
Select one:
A. laxity
B. execution time
C. deadline interval
D. period

Feedback
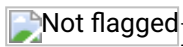
The correct answer is: laxity

Question 26

Complete
Mark 0 out of 1

Not flagged Flag question

Question text

The execution of the task is known as
Select one:
A. Process
B. Job
C. Task
D. Thread

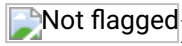**Feedback**

The correct answer is: Job

Question 27

Complete
Mark 0 out of 1

Flag question

Question text

Which of the following can execute quickly, if the interrupt priority is higher in the system?
Select one:
- A. EDD
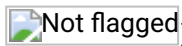- B. Sporadic event
- C. LL
- D. Aperiodic scheduling

Feedback

The correct answer is: Sporadic event

Question 28

Complete
Mark 1 out of 1

Flag question

Question text

The scheduler admits a process using :
Select one:
- A. two phase locking protocol
- B. admission control algorithm
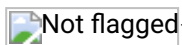- C. busy wait polling
- D. none of the above

Feedback

The correct answer is: busy wait polling

Question 29

Complete
Mark 1 out of 1

Flag question

Question text

If there are a total of T = 100 shares to be divided among three processes, A, B and C. A is assigned 50 shares, B is assigned 15 shares and C is assigned 20 shares.C will have _____ percent of the total processor time.
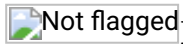Select one:

◉ A. 20

○ B. 15

○ C. 50

○ D. none of the above

Feedback

The correct answer is: 20

Question 30

Complete
Mark 1 out of 1
Not flaggedFlag question

Question text

Which are types of RTAI tasks?
Select one:

○ A. Short, Long

○ B. IO bound, CPU bound

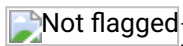○ C. Single threaded, Multi threaded

◉ D. One Shot, Periodic

Feedback

The correct answer is: One Shot, Periodic

Question 31

Complete
Mark 1 out of 1
Not flaggedFlag question

Question text

Which of the following is not work of the Real time executive?
Select one:

○ A. RT task management

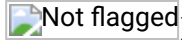○ B. RT IPC

◉ C. Memory Management and file IO

○ D. Scheduling

Feedback

The correct answer is: Memory Management and file IO

Question 32

Complete
Mark 1 out of 1
Not flagged Flag question

Question text

In FreeRTOS, if multiple tasks are same priority and are always in running or ready state then kernel create _____ where each gets a full ticks before switching to next.
Select one:
- ○ A. least laxity frist
- ● B. round Robin model
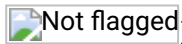- ○ C. earilest deadline frist
- ○ D. rate monotonic

Feedback

The correct answer is: round Robin model

Question 33

Complete
Mark 1 out of 1
Not flagged Flag question

Question text

The Cortex-M3 port includes which of the following standard FreeRTOS features
Select one:
- ○ A. Pre-emptive or co-operative operation
- ○ B. Very flexible task priority
- ○ C. Queues
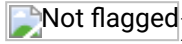- ○ D. Mutex
- ● E. All of the above

Feedback

The correct answer is: All of the above

Question 34

Complete

Mark 1 out of 1

Question text

For real time operating systems, interrupt latency should be _____ .
Select one:
○ A. Maximum
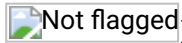◉ B. Minimal
○ C. Zero
○ D. Dependent on the scheduling

Feedback

The correct answer is: Minimal

Question 35

Complete
Mark 0 out of 1

Question text

A task can use the _____ API function to delete itself or other task
Select one:
○ A. vDeleteTask()
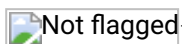○ B. vDelete()
○ C. vTaskDelete()
◉ D. TaskDelete()

Feedback

The correct answer is: vTaskDelete()

Question 36

Complete
Mark 0 out of 1

Question text

Type of processor in which single task of a particular application is process is termed as _____ .
Select one:

○ A. Real time processor
○ B. Dedicated processor
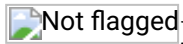○ C. Applicant processor
○ D. One task processor

Feedback

The correct answer is: Dedicated processor

Question 37

Complete
Mark 0 out of 1

Question text

If the period of a process is 'p', then the rate of the task is _____ .
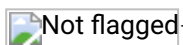Select one:
◉ A. p^2
○ B. 2*p
○ C. 1/p
○ D. p

Feedback

The correct answer is: 1/p

Question 38

Complete
Mark 0 out of 1

Question text

In rate monotonic scheduling, a process with a shorter period is assigned :
Select one:
○ A. A higher priority
○ B. A lower priority
○ C. Higher & lower priority
◉ D. None of the above

Feedback

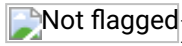The correct answer is: A higher priority

Question 39

Complete
Mark 1 out of 1
![Not flagged]Flag question

Question text

Real time systems need to _____ the interrupt latency.
Select one:
- ⦿ A. Minimize
- ○ B. Maximize
- ○ C. Not bother about
- ○ D. None of the above

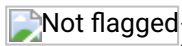**Feedback**

The correct answer is: Minimize

Question 40

Complete
Mark 1 out of 1
![Not flagged]Flag question

Question text

The amount of time required for the scheduling dispatcher to stop one process and start another is known as _____ .
Select one:
- ○ A. Event latency
- ○ B. Interrupt latency
- ⦿ C. Dispatch latency
- ○ D. Context switch

Feedback

The correct answer is: Dispatch latency

Finish review

Skip Quiz navigation

Quiz navigation

Finish review