

# NADAR SARASWATHI COLLEGE OF ENGINEERING AND TECHNOLOGY, THENI.

Course/Branch : B.E/ECE	Year / Semester : IV/ VII	Format No.	NAC/TLP-07a.13
Subject Code : EC8791	Subject Name : Embedded and Real Time Systems	Rev. No.	02
Unit No : 4	Unit Name : Real Time Systems	Date	30.09.2020

## OBJECTIVE TYPE QUESTION BANK

S. No.	Objective Questions (MCQ /True or False / Fill up with Choices )	BTL
1	In real time operating system _____ a) all processes have the same priority <b>b) a task must be serviced by its deadline period</b> c) process scheduling can be done only once d) kernel is not required	L2
2	Hard real time operating system has _____ jitter than a soft real time operating system. a) <b>less</b> b) more c) equal d) none of the mentioned	L2
3	For real time operating systems, interrupt latency should be _____ a) <b>minimal</b> b) maximum c) zero d) dependent on the scheduling	L4
4	In rate monotonic scheduling _____ a) <b>shorter duration job has higher priority</b> b) longer duration job has higher priority c) priority does not depend on the duration of the job d) none of the mentioned	L5
5	In which scheduling certain amount of CPU time is allocated to each process? a) earliest deadline first scheduling <b>b) proportional share scheduling</b> c) equal share scheduling d) none of the mentioned	L1
6	The problem of priority inversion can be solved by _____ a) <b>priority inheritance protocol</b> b) priority inversion protocol c) both priority inheritance and inversion protocol d) none of the mentioned	L1
7	Time duration required for scheduling dispatcher to stop one process and start another is known as _____	L2

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		a) process latency <b>b) dispatch latency</b> c) execution latency d) interrupt latency	
8		ime 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 <b>c) context switch time</b> d) none of the mentioned	L1
9		Which one of the following is a real time operating system?  a) RTLinux b) VxWorks c) Windows CE <b>d) All of the mentioned</b>	L1
10		VxWorks is centered around _____  <b>a) wind microkernel</b> b) linux kernel c) unix kernel d) none of the mentioned	L3
11		There are efficiency gains from _____ all sorts of equipment.  a) Implementation b) Analogous c) Evolution <b>d) Digitization</b>	L2
12		The availability of _____ is the cloud services provider who will host video and data for end users.  a) Devices b) Memory <b>c) Security system</b> d) Objects	L3
13		SLA stands for _____  <b>a) Service Level Agreement</b> b) Security Level Agreement c) System Local Area d) Service Local Are	L1

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14	<p>A provider which produces 99 percent uptime _____</p> <p>a) Security issues  <b>b) Network Issues</b>                  c) Programming issue                  d) Memory issue</p>	L1
15	<p>With physical security, the stakes are incredibly _____</p> <p>a) Very high                  b) Low                  c) Very low  <b>d) High</b></p>	L2
16	<p>The most likely culprit is _____</p> <p>a) Things                  b) Network                  c) Device  <b>d) Internet connectivity</b></p>	L3
17	<p>_____ are designed to protect data and servers.</p> <p>a) Physical walls                  b) Logical firewalls  <b>c) Both Physical and logical</b>                  d) Neither physical nor logical</p>	L1
18	<p>Communication between _____ and _____ is encrypted for security.</p> <p>a) Cloud and device  <b>b) End user and data center</b>                  c) Network and device                  d) Cloud and Network</p>	L5
19	<p>Undertaking the intervention over an extended period of time would enhance the change of gaining access.</p> <p><b>a) True</b>                  b) False</p>	L1
20	<p>_____ phase starts with the construction of spanning tree for ordinary routing information.</p> <p><b>a) Initialization</b>                  b) Message Relaying                  c) Selective recovery                  d) Lost message detection</p>	L1
21	<p>In which phase packets are forwarded hop by hop to get closer to the sink?</p>	L2

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	a) Initialization <b>b) Message Relaying</b> c) Selective recovery d) Lost message detection	
22	To schedule the processes, they are considered _____  a) infinitely long <b>b) periodic</b> c) heavy weight d) light weight	L1
23	If the period of a process is 'p', then what is the rate of the task?  a) $p^2$ b) $2*p$ <b>c) <math>1/p</math></b> d) p	L1
24	The scheduler admits a process using _____  a) two phase locking protocol b) admission control algorithm <b>c) busy wait polling</b> d) none of the mentioned	L3
25	The _____ scheduling algorithm schedules periodic tasks using a static priority policy with preemption.  a) earliest deadline first <b>b) rate monotonic</b> c) first cum first served d) priority	L2
26	Rate monotonic scheduling assumes that the _____  <b>a) processing time of a periodic process is same for each CPU burst</b> b) processing time of a periodic process is different for each CPU burst c) periods of all processes is the same d) none of the mentioned	L2
27	In rate monotonic scheduling, a process with a shorter period is assigned _____  <b>a) a higher priority</b> b) a lower priority c) higher & lower priority d) none of the mentioned	L5

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28	<p>There are two processes P1 and P2, whose periods are 50 and 100 respectively. P1 is assigned higher priority than P2. The processing times are <math>t_1 = 20</math> for P1 and <math>t_2 = 35</math> for P2. Is it possible to schedule these tasks so that each meets its deadline using Rate monotonic scheduling?</p> <p>a) yes b) no c) maybe d) none of the mentioned</p>	L2
29	<p>A process P1 has a period of 50 and a CPU burst of <math>t_1 = 25</math>, P2 has a period of 80 and a CPU burst of 35. The total CPU utilization is?</p> <p>a) 0.90 b) 0.74 c) <b>0.94</b> d) 0.80</p>	L1
30	<p>A process P1 has a period of 50 and a CPU burst of <math>t_1 = 25</math>, P2 has a period of 80 and a CPU burst of 35. Can the processes be scheduled without missing the deadlines?</p> <p>a) Yes b) <b>No</b> c) Maybe d) None of the mentioned</p>	L1
31	<p>In a _____ real time system, it is guaranteed that critical real time tasks will be completed within their deadlines.</p> <p>a) <b>soft</b> b) hard c) critical d) none of the mentioned</p>	L2
32	<p>Antilock brake systems, flight management systems, pacemakers are examples of _____</p> <p>a) safety critical system b) hard real time system c) soft real time system d) <b>safety critical system and hard real time system</b></p>	L3