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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute)

Affiliated to Dr. A.P.J. Abdul Kalam Technical University, Uttar Pradesh, Lucknow

M.TECH

FIRST YEAR (SEMESTER-II) THEORY EXAMINATION (2020-2021)

(Objective Type)

Subject Code: AMTCSE0201

Subject: High Performance Computing

Max. Mks. : 40

Time : 70 Minutes

General Instructions:

All questions are compulsory.

Question No- 1 to 5 are objective type question carrying 2 marks each.

Question No- 6 to 20 are also objective type/Glossary based question carrying 2 marks each.

Q.No	Question Content	Question Image	Category	Sub Category	Marks	Options Randomization	Type	Difficulty	Correct	Option1	Option2	Option3	Option4
1	Execution of several activities at the same time		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	parallel processing	processing	parallel processing	serial processing	multitasking
2	The fundamental operation of comparison-based sorting is __		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	compare-exchange	compare-exchange	searching	Sorting	Swapping
3	Which problems can be handled by recursive decomposition?		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	divide and conquer problem	backtracking	greedy method	divide and conquer problem	branch and bound
4	Allowing multiple instructions for issuing in a clock cycle, is the goal of		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	Multiple-issue processors	Single-issue processors	Dual-issue processors	Multiple-issue processors	No-issue processors
5	A processor performing fetch or decoding of different instruction during the execution of another instruction is called __		Single Choice Questions	Single Choice Questions	2		Single Choice	Brilliant	Pipe-lining	Super-scaling	Pipe-lining	Parallel Computation	none of above
6	_____ are used to synchronize the operations of its components, and is used as an indicator of the processor's speed		Glossary I	Glossary I	2		Single Choice	Brilliant	clock rate	Run time	scalability	clock rate	
7	_____ is the final phase of a computer program's life		Glossary I	Glossary I	2		Single Choice	Brilliant	run time	scalability	clock rate	run time	
8	_____ is the degree to which workload throughput benefits from the availability of additional processors.		Glossary I	Glossary I	2		Single Choice	Brilliant	scalability	scalability	run time	clock rate	
9	At least one resource must be held in a non-sharable mode, that is, only one processes at a time can use the resource		Glossary II	Glossary II	2		Single Choice	Brilliant	mutual exclusion	mutual exclusion	hold and wait	circular wait	
10	A process must be holding at least one resource and waiting to acquire additional resources that are currently being held by other processes		Glossary II	Glossary II	2		Single Choice	Brilliant	hold and wait	mutual exclusion	hold and wait	circular wait	
11	each process must be waiting for a resource which is being held by another process, which in turn is waiting for the first process to release the resource		Glossary II	Glossary II	2		Single Choice	Brilliant	circular wait	mutual exclusion	hold and wait	circular wait	
12	_____ Memory accessing time change according to the distance of the micro processor.		Glossary III	Glossary III	2		Single Choice	Brilliant	NUMA	NUMA	UMA	barrier	

Q.No	Question Content	Question Image	Category	Sub Category	Marks	Options Randomization	Type	Difficulty	Correct	Option1	Option2	Option3	Option4
13	Memory accessing time is equal for_____		Glossary III	Glossary III	2		Single Choice	Brilliant	UMA	NUMA	UMA	barrier	
14	_____ enables to wait multiple threads until all the threads have reached a particular point of execution		Glossary III	Glossary III	2		Single Choice	Brilliant	barrier	NUMA	UMA	barrier	
15	_____ is a computing model in which multiple processors execute instructions simultaneously for better performance		Glossary IV	Glossary IV	2		Single Choice	Brilliant	parallel processing	parallel processing	concurrency processing	asynchronous	
16	_____ is a method in computing of running two or more processors (CPUs) to handle separate parts of an overall task.		Glossary IV	Glossary IV	2		Single Choice	Brilliant	concurrency processing	parallel processing	concurrency processing	Asynchronous	
17	_____ is a process or function that executes a task "in the background" without the user having to wait for the task to finish		Glossary IV	Glossary IV	2		Single Choice	Brilliant	Asynchronous	parallel processing	concurrency processing	Asynchronous	
18	_____is any activity that uses computers to manage, process, and communicate information		Glossary V	Glossary V	2		Single Choice	Brilliant	Computing	Computing	performance	granularity	
19	_____ is the amount of useful work accomplished by a computer system compared to the time and resources used.		Glossary V	Glossary V	2		Single Choice	Brilliant	performance	computing	performance	granularity	
20	_____ is the event to which a system is broken down into small parts , either the system itself or its description or observation.		Glossary V	Glossary V	2		Single Choice	Brilliant	granularity	computing	performance	granularity	