

D. Y. Patil College of Engineering, Akurdi, Pune 411044 **Department of Computer Engineering**

Unit Test II

Date: 26/08/2020

Class: BE Computer Div: A + B Academic Year: 2020-21

Sem: I

Subject : High Performance Computing

Exam Date: 26/08/2020

Q. No.	Question Description	Options 28	Correct Answer	Marks	со	PO	PSO	BTL
1	Task interaction graphs represent dependencies, whereas task dependency graphs represent dependencies.	A. control, data B. task, data C. process, control D. data, control	D	2	2	1	3	4
2	Select correct answer. Which graph represents tasks as nodes and their interactions/data exchange as edges?	A. task dependency graphB. process dependency graphC. process interaction graphD. task interaction graph	D	2	2	1	3	4
3	The average number of tasks that can be processed in parallel over the execution of the program is called as	A. average degree of concurrency B. degree of concurrency C. critical path length D. maximum concurrency	A	2	2	1	3	4
4	The number of tasks that can be executed in	A. average concurrencyB. degree of concurrencyC. critical path length	В	2	2	1	3	4

	parallel is the of	D. maximum concurrency						
	a decomposition.							
5	A decomposition can be illustrated in the form of a directed graph with nodes corresponding to tasks and edges indicating that the result of one task is required for processing the next. Such graph is called as	A. process dependency graph B. task dependency graph C. task interaction graph D. process interaction graph	В	2	2	1	3	4
6	In which case, the owner computes rule implies that the output is computed by the process to which the output data is assigned?	A. input data decompositionB. output data decompositionC. Both of the aboveD. None of the above	В	2	2	4	3	5
7	Select relevant task characteristics from the options given below:	A. Task generationB. Task sizesC. Size of data associated with tasksD. All of the above	D	2	2	1	3	4
8	A classic example of game playing - each 15 puzzle board is the example of	A. Static Task GenerationB. Dynamic Task GenerationC. None of the aboveD. All of the above	В	2	2	3	3	4
9	Analyze task interaction pattern	A. static regular interaction patternB. static irregular interaction pattern	В	2	2	3	3	5

	of the multiplication of a sparse matrix with a vector.	C. dynamic regular interaction pattern D. dynamic irregular interaction pattern						
10	Select the methods for containing Interaction Overheads.	 A. Maximize data locality B. Minimize volume of data exchange C. Minimize frequency of interactions D. Minimize contention and hot-spots E. All of the above 	E	2	2	3	3	4
11	Which model is equally suitable to shared-address-space or message-passing paradigms, since the interaction is naturally two ways.	 A. Work pool model B. Master slave model C. Data parallel model D. Producer consumer or pipeline model 	В	2	2	1	3	4
12	In which type of the model, tasks are dynamically assigned to the processes for balancing the load?	A. Work pool modelB. Master slave modelC. Data parallel modelD. Producer consumer or pipeline model	A	2	2	3	3	4
13	Select the appropriate stage of GPU Pipeline which receives commands from CPU and also pulls geometry information from system memory.	A. pixel processing B. vertex processing C. memory interface D. host interface	D	2	2	12	3	4
14	Select the hardware specifications	A. GPU Clock Speed B. Size of memory bus C. Amount of available memory	E	2	2	12	3	1

	which most affect	D. Memory Clock Rate						
	the GPU cards speed.	E. All of the above						
15	Select the appropriate stage of GPU Pipeline where computations include texture mapping and math operations.	A. pixel processing B. vertex processing C. memory interface D. host interface	A	2	2	12	3	1

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