EEE4120F Quiz 1 based on paper:
Berkeley's "Landscale of Parallel Computing Research"

DATE: 23/2/2023

Please fill in name!

*This is just a very short quiz, but it **is** for marks!*

NB: Please select only one answer option for each question

CIRCLE/COLOR-IN ANSWERS FOR MULTIPLE CHIOCE QUESTIONS

TOTAL NUMBER OF QUESTIONS : FOUR (4)

TIME (mins):   8

#	Question - EACH QUESTION WORTH 1 MARK	Sec	W	%	X
Q1	Computer engineers tend to start testing with a POST… you're thinking what? Like checking emails? No. POST = Power On Self Test. So let us check that you've had a look at the paper and can answer a simple question (i.e., like getting a LED to blink hello):	60	1	5%	
	In the paper, which famous bridge inspired the authors for their illustration of their "seven critical questions"? [1] Tower Bridge (in London) because it has two tall towers either side. [2] Harbour Bridge (in Sydney) because it's a beautiful problem. [3] Charles Bridge (in Prague) because it has a long legacy. **[4] Golden Gate Bridge (San Francisco)** because it's got much tension. [5] The Helix Bridge (Singapore) because it is so complex.				
Q2	What is meant by "Conventional Wisdoms" (CW) described in the paper?	60	3	15%	
	[1] It is about today's understanding for best ways to developing computers. [2] It is common programming faults computer designers should know of. [3] It concerns standard terminology for referring to computer systems. **[4] It refers to earlier, becoming outdated, practices** (before year 2000). [5] It involves essential parts of the conventional design process for computer systems, based on the Waterfall model, from requirements to retirement.				
Q3	What is meant by the "Dwarf" concept as explained in the paper?	90	3	15%	
	[1] There could be as many of 13 of them, where each Dwarf class has particular types of SWAP characteristics. [2] There are 7 Dwarfs computer stereotypes, building from type 1, a simple uniprocessor, to type 7, a fully distributed multiprocessor system. [3] Dwarfs are busy processing parts that whistle while they work. **[4] Dwarfs are computation classes**, where members of a particular class have close relation in ways their computation and data movement happens. [5] Dwarfs, refer to a connectable class of processors that are aimed at being small but highly versatile.				
Q4	The paper ends with considerations for future programming models (and approaches to programming computers) they propose (select one:)	90	3	15%	
	[1] Programming models should be **independent of number processors** [2] Programming models should allow for means to closely couple code to particular processor types. [3] Programming models should be provided in versions to cater for different memory sizes and processor speeds. [4] Programming models should chiefly involve the connecting of Dwarfs. [5] Programming models will be unnecessary in a few years as machine learning will be used entirely for instructing machines what to do.				
Q5	Much of the paper concerns the discussion of dwarfs. From your reading, would you say the 'dwarf' term is actually an acronym or just a term an author thought effective albeit something imaginary? (motivate your answer).	90	5	25%	

		Time	W	%	X
	It isn't an acronym, it is a term the authors chose to refer to a abstract concept, each type of dwarf having certain similarity in computation and data movement.				
Q6	There is much talk about 'multicore' and 'manycore', although they do sound rather the same. Put simply what is the main difference between these two terms as explained and usedin the paper.	90	5	25%	
	Multicore = many cores 2 , 4 , 8 … possibly different types Manycore = masses 100+ cores, smaller and many, same types.				
	TOTAL :	**480**	**20**	**100%**	

Time : time est. in sec W : Weighting of question % : How much question counts   X : Office use