



K.S.Institute of Technology, Bangalore

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ASSIGNMENT QUESTIONS

Academic Year	2021-2022		
Batch	2018-2022		
Year/Semester/section	IV/VII 'A' & 'B'		
Course Code-Title	18CS733/ Advanced Computer Architecture		
Name of the Instructors	Dr. Vijayalaxmi Mekali	Dept	CSE

Assignment No: 1		Total marks:10		
Date of Issue: 13-11-2021		Date of Submission: 16-11-2021		
Sl.No	Assignment Questions	K Level	CO	Marks
1.	Identify the performance factor and system attributes. Show that how the performance factors are influenced by system attributes.	Applying (K3)	CO1	1
2.	Model a Flynn's Classification of computer architecture	Applying (K3)	CO1	1
3.	Model the Bernstein's condition for parallelism. Detect the parallelism in the following code using Bernstein's condition (Assume no pipeline) P1: C=D*E P2: M=G+C P3: A=B+C P4: C=L+M P5: G÷E	Applying (K3)	CO1	1
4.	Experiment with different types of dependencies between instructions.	Applying (K3)	CO1	1
5.	Model the following processor architectures a) shared memory multiprocessor models b) Vector super computer	Applying (K3)	CO1	1
6.	Identify the following a. Metrics affecting scalability of computer system b. Important characteristics of parallel algorithms	Applying (K3)	CO1	1
7.	Choose the characteristics of CISC and RISC architecture with a neat block diagram.	Applying (K3)	CO2	1
8.	Experiment with four level memory hierarch with neat diagram.	Applying (K3)	CO2	1
9.	Model typical superscalar RISC processor architecture with neat diagram.	Applying (K3)	CO2	1
10.	Interview inclusion, coherence and locality properties	Applying (K3)	CO2	1

Course in charge

HOD

