G. H. Raisoni College of Engineering and Management, Pune.
(An Autonomous Institution Affiliated to Savitribai Phule Pune University)
S.Y B. Tech (Computer /ENTC Engineering) (Term-III)
ESE Winter-2020 (2019 Pattern)
COMPUTER ARCHITECTURE & ORGANIZATION (BCOL19201)

[Time:1.5 Hours]   [Max. Marks 30]

COURSE OUTCOME:

1. Describe fundamental units of Computer System
2. Analyze organization and design of memory system
3. Identify different ways of communicating with I/O devices and interfaces
4. Analyze the working of serial and parallel system

Instructions to the candidates:

1) (CO1/CO2/CO....)at the beginning of question/sub question indicates the course outcome related to the question.
2) All questions compulsory.
3) Neat diagrams must be drawn wherever necessary.
4) Figures to the right indicate full marks.
5) Assume suitable data, if necessary.

CO1	a)	List out Addressing mode and explain any 4 modes with examples?	[5]
CO2	a)	Demonstrate Booths multiplication for given example? e.g. (-5*-3)	[5]
CO2	b)	Solved example using Single and double precision $(12.125)_2$?	[4]
CO3	a)	Explain working of micro programmed control unit?	[4]
CO3	a)	Draw and explain multiprocessor organization?	[4]
CO3	b)	Draw and explain working of pipeline of processor?	[4]
CO4	a)	Write Difference between RISC and CISC processor?	[4]

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S.Y B. Tech (E&TC/IT) (Term-III)
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Data Structures (BITL19202)

[Time:-- 1 ½ Hours]

[Max. Marks:30]

OURSE OUTCOME:

1. To describe the usage of various data structure
2. To analyze, evaluate and choose appropriate abstract data types and algorithms to solve particu problems.
3. To Compare and contrast the benefits of dynamic and static data structures implementation.
4. To design and implement the learned data structure algorithm for problem solving.

nstructions to the candidates:
1) (CO1/CO2/CO....)at the beginning of question/sub question indicates the course outcome related to the question.
2) All questions compulsory.
3) Neat diagrams must be drawn wherever necessary.
4) Figures to the right indicate full marks.
5) Assume suitable data, if necessary.
6) Other Instructions, if any.

CO	Sub Question		Marks
CO1	a)	Describe with suitable example function with call by reference.	[3]
	b)	Illustrate with suitable example queue and its operations.	[3]
		OR	
	c)	Explain the methods used for avoiding collision in linear hashing.	[3]
CO2	a)	Evaluate the given prefix expression (- + * 5 6 2 / 6 4) by choosing appropriate data structure.	[4]
	b)	Choose appropriate data structure to build balanced binary search for the data - 15, 20, 24, 10, 13, 7, 30, 36, 25	[4]
CO3	a)	Compare and contrast structure and union with syntax.	[4]
	b)	Distinguish between hashing with linear and binary search methods.	[4]
CO4	a)	Write a function to insert data at the end of doubly linked list.	[4]
	b)	Write a C code to create a file called student database consisting of RNO, Name and Class and display the contents from the file on to display device.	[4]

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