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Roll No.

333456(33)

B. E. (Fourth Semester) Examination, April-May 2021

(New Scheme)

(IT Branch)

COMPUTER ORGANIZATION and ARCHITECTURE

Time Allowed: Three hours

Maximum Marks: 80

Minimum Pass Marks: 28

Note: Attempt all questions. Part (a) of each question is compulsory. Attempt any two parts from (b), (c), (d) of each question. The figures in the right-hand margin indicate marks.

Unit-I

- 1. (a) Define PCI.
- 2
- (b) Explain stack organization in Computer with example. 7

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	(d	Explain micro-instruction sequencing using two address field sequencing technique.	7
		Unit-IV	
4	4. (a	Define Cache Memory & Virtual Memory.	2
	(b	Explain address mapping using pages in virtual memory.	7
	(c	Design a memory of 102 h words with RAM & ROM chips of 128 word size of RAM and 512 word size of ROM.	7
	(d) What do you mean by Cache coherence & what are its conditions? Also write solutions to the cache coherence problem.	7
		Unit-V	
861	5. (a) What is Pipe Lining?	2
	(b) Discuss the various modes of transfer between CPU & IOP data transfer.	7
	(c	Difference between Linear pipeline and Non-linear	

[2]

(d) What are the different types of CPU organisation?

Also explain in brief about instruction format.

more and the Unit-IL of the order of the

(c) Explain algorithm for addition & subtraction of

(d) Explain with flowchart the division of floating point

(b) Difference between horizontal micro programming

(c) Difference between hardwired control unit & micro-

Chirti

numbers in signed – 2's complement representation. 7

(b) Explain Booth Multiplication Algorithm.

may want described the first Unit-III and the improved

3. (a) Define Micro Operation.

& vertical micro programming.

programmed control unit.

(a) What is 2's complement?

numbers.

(c) Explain various different addressing mode techniques. 7

7

2

7

7

2

7

7

pipeline.

(d)	Explain various sequence of operations that may be
	carried out during CPU-IOP communication.

7

Fa) Deline Cacina Mightany & Virtual Memo

(b) Explain address impriving limits pages in serrical increases.

(c) Design a memory of 192 his words livin fireful & 30M chaps of 1.% word are of RAM and 112. A cord see of RAM and 112.

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order adam organization organization organization custos
conservacion excellents.

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(b) Decree the various modes of moster between Carl

(a) Difference herveste Linear eigelaw- and Ann-Imeas moreline