

Q.P. Code: 16EC408

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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

B.TECH II Year II Semester Supplementary Examinations December 2018
COMPUTER ORGANIZATION AND ARCHITECTURE

(ECE)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units 5 X 12 = 60 Marks)

UNIT-I

1 With neat sketches explain about CPU organization. 12M

OR

2 a. Explain about different types of memories. 6M

b. Construct and explain the linear organization of 8x2 ROM chips. 6M

UNIT-II

3 a. What is register? Explain in detail about Input-Output configuration. 6M

b. Explain Input-Output Instructions with necessary table. 6M

OR

4 a. What is the use of program control? Mention its typical instructions. 6M

b. Explain in detail about status bit conditions with example. 6M

UNIT-III

5 a. Discuss in brief about the functioning of Micro-Programmed Control Unit. 6M

b. List the advantages and disadvantages of Micro-Programmed Control Unit. 6M

OR

6 a. What is Micro operation? And list of Logic Micro Operation. 6M

b. Explain in detail about Hardware Implementation Logic Micro Operation. 6M

UNIT-IV

7 a. What is virtual memory? What is the relation between address space and memory space i memory system? 6M

b. What is the need for cache memory? Explain different types of cache organizations. 6M

OR

8 What is DMA? Explain with the help of DMA controller large blocks of data can be transferred at high speed between an external device and main memory. 12M

UNIT-V

9 a. Give the Flynn s classification of computers? Explain in detail. 6M

b. Explain the process of arithmetic pipeline with an example. 6M

OR

10 What is synchronization? And explain in detail about mutual exclusion with a semaphore. 12M

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