

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -2 EXAMINATION- March-April 2017

B.Tech/ M.Tech IV Semester

COURSE CODE: 10B11CI401

MAX. MARKS: 25

COURSE NAME: Microprocessor and Controllers

COURSE CREDITS: 3

MAX. TIME: 1.5 Hrs

*Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.*

- Q1: [4 marks, each question is ONE marks] [4]
- A. What is the purpose of following pins of 8086: INTR, INTA, NMI, READY?
  - B. What do you mean by 8-bit, 16-bit, or 32-bit microprocessor?
  - C. Describe the directives: ASSUME, EQU, and ORG?
  - D. Explain the use of Base-Plus index addressing mode?
- Q2: Explain the timing diagram for read and write operations in 8086? [3]
- Q3: Explain the role of column address strobe (CAS) and row address strobe (RAS) in the DRAM TI TMS4464-DRAM (64K X 4) addressing? [3]
- Q5: Explain the use of Hamming codes to detect and correct the errors? [5]
- Q4: Draw a memory interfacing diagram to create a 64k x 8 memory using EPROM (size 8k x 8), which should be addressed from F0000H to FFFFFH using appropriate decoding technique? [5]
- Q6: Describe the functional diagram and command byte of the 8255 PPI? Explain the programming steps to set the Port A as an input port in Mode 1? [5]