

(i) Printed Pages : 2

Roll No.

(ii) Questions : 9

Sub. Code :

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Exam. Code :

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Bachelor of Computer Applications 2nd Semester

(2053)

COMPUTER ORGANIZATION

Paper-BCA-16-202

Time Allowed : Three Hours] [Maximum Marks : 65

Note :— (1) Attempt one question from each Unit and the compulsory question (Unit-V).

(2) All questions carry equal marks unless specified.

UNIT—I

1. (a) Give the design and logic diagram of converting JK flip flop to D flip flop. 8
- (b) Explain half adder and full adder with their logic diagram. 5
2. (a) Discuss addition and subtraction for sign magnitude numbers. 6
- (b) Explain Booth's algorithm with suitable example. 7

UNIT—II

3. (a) Define Interrupt. What is an interrupt cycle ? Also explain priority interrupt. 7
- (b) What are micro-operations ? Design 4-bit arithmetic circuit. 6
4. Give the instruction set of 8086/8088 microprocessor. 13

UNIT—III

5. (a) Explain different types of memories with the help of circuit diagram. 6
- (b) Write assembly language program to perform basic input/output. 7
6. (a) Elaborate various features of assembly language. Explain the differences between machine and assembly language. 5
- (b) Compare one pass and two pass assembler. 8

UNIT—IV

7. Discuss the various physical components of a computer and its inspection and diagnostics on PC. 13
8. Define the term "Computer Virus". Explain its various types and its preventive and protective measures. 13

UNIT—V

9. (a) What is hit ratio ? 1
- (b) Discuss the role of Execution Unit (EU). 2
- (c) Define the term "parity". 2
- (d) What is DMA ? 2
- (e) What is Cache memory ? 2
- (f) Define RTL. 2
- (g) What is an Expansion Card ? 2