

Roll No.

322312(22)

B.E. (Third Semester)

Examination, April/May 2015

(Old Course)

(Branch CSE)

COMPUTER FUNDAMENTALS

Time : Three Hours] [Maximum Marks : 80

CSVTUonline.com *[Minimum Pass Marks : 28*

Note : Part (a) is compulsory in all questions and solve any *two* from rest *three*.

UNIT-1

1. (a) What is system software ? 2
- (b) Explain various input and output units in brief. 7
- (c) Explain the hierarchical structure of computer languages in brief. **CSVTUonline.com** 7
- (d) What is operating system and differentiate between single and multiuser operating system ? 7

UNIT-2

2. (a) What is plotter ? **CSVТУonline.com** 2
- (b) Explain the terms LAN, MAN and WAN with respect to computer network. 7
- (c) Explain CRT with its block diagram and explain raster and random scan system. 7
- (d) What do you mean by transmission mode ? Explain asynchronous, synchronous and isochronous mode. 7

UNIT-3

3. (a) What will be 1's and 2's complement of number 10010010. **CSVТУonline.com** 2
- (b) Write short notes on : 7
- (i) Fixed point arithmetic
- (ii) Hamming code.
- (c) Solve the following :
- (i) $(76543)_8 = (\quad)_2$ 2
- (ii) $(123A)_{16} = (\quad)_{10}$ 2

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- (iii) $(100111101)_2 = (\quad)_{10}$ 2
- (iv) $(21)_{10} = (\quad)_2$ 1
- (d) Explain reflected code with example. 7

UNIT-4

4. (a) State any *two* buses used in computer. 2
- (b) Explain arithmetic logic shaft unit with block diagram. **CSVТУonline.com** 7
- (c) Write short note on : 7
- (i) Logic micro-operation.
- (i) Shift micro-operation.
- (d) Draw and explain 4 bit arithmetic circuit. 7

UNIT-5

5. (a) What is interrupt ? 2
- (b) What do you mean by addressing mode ? Explain any three addressing modes. 7
- (c) Explain the steps of instruction cycle with block diagram. 7
- (d) Explain the design of accumulator logic. 7