Third Semester B. E. (Comp.Engg.) (C.B.S.) Examination

CONCEPTS IN COMPUTER ENGINEERING

Time : Three Hours]　　　　　　　　[Max. Marks : 80

N. B. : (1) All questions carry marks as indicated.
  (2) Due credit will be given to neatness and adequate dimensions.
  (3) Diagrams should be given wherever necessary.

1. (a) Differentiate between Read Only Memory and Serial Access Memory. 6

   (b) Explain :—

   (i) MICR

   (ii) OCR

   (iii) Inkjet Printers Vs Laser Printers

   (iv) Bar Coding 8

OR

2. (a) Explain in detail :—

   (i) Magnetic Hard Disk.

   (ii) Compact Disk Read Only Memory. 8

   (b) Explain Keyboard and Flat Pannel Display. 6

3. (a) Explain five generations of computers in detail. 6

(b) Write a machine language program for HYPCOM to find the smallest of three numbers. 7

OR

4. (a) Draw and explain the logical structure of HYPCOM Processor. 6

(b) Explain Moor's Law. 3

(c) Explain :—

(i) Parallel computers.

(ii) Distributed Computing System. 4

5. (a) Explain characteristics of a good programming language. 4

(b) Explain following programming languages in detail.

(i) Assembly language.

(ii) HTML

(iii) Python. 9

OR

6. (a) What is algorithm and flowchart ? Write an algorithm and draw flow chart for entering 10 numbers and calculate average. 8

(b) What are the different factors that affect the choice of language. 5

7. (a) What is software ? Explain two types of software's with three examples of each. 9

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(b) Explain the steps to solve a problem. 4

OR

8. (a) Explain Unique Application Programs. 6

(b) Explain various system development programs.7

9. (a) What is operating system? Explain the following :

   (i) MAC OS

   (ii) FEDORA

   (iii) UNIX 7

(b) What is free software? Explain various free software license providers. 6

OR

10. (a) Explain various types of operating system in detail.
   7

(b) Explain :—

   (i) FOSS

   (ii) GNU Project

   (iii) Open Source 6

11. (a) How a moving image is captured with a video camera ? Explain. 7

(b) What are the problems in speech analysis and recognition ? Explain speech processing. 7

OR

12. (a) Explain :—

   (i) Compression of audio signals.

   (ii) Audio Signal Processing.

   (iii) MPEG Compression Standard. 9

   (b) How video data is compressed? Explain. 5