

# CBCS SCHEME

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15BT36

## Third Semester B.E. Degree Examination, June/July 2018 Basics of Computer Applications

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing one full question from each module.

### Module-1

- 1 a. Explain the modes of Vi editor, with a neat diagram. (05 Marks)  
b. Write a Shell script for comparing file permissions of two files. (05 Marks)  
c. What is XML? Write a note on structure data, with examples. (06 Marks)

OR

- 2 a. What are Wild Card Characters? List and explain how they are used for pattern matching. (06 Marks)  
b. Interpret and explain the O/P of following commands : (04 Marks)  
i) `expr 10/2` ii) `ls -l chap??` iii) `sed '3q' Emp.lst` iv) `who|wc -l`  
c. Explain salient features of DTD in an XML document. (06 Marks)

### Module-2

- 3 a. Explain ISO – OSI reference model. (08 Marks)  
b. Write short notes on : i) HTTP ii) WWW. (04 Marks)  
c. Explain HTML, with example. (04 Marks)

OR

- 4 a. Explain E – R model and its related properties. (06 Marks)  
b. Explain Create, Insert and Update statement in SQL with examples. (06 Marks)  
c. Explain the working of a Web search engine. (04 Marks)

### Module-3

- 5 a. What are Ontologies? Describe Open biological ontologies. (06 Marks)  
b. Describe the basic features of flat file. (06 Marks)  
c. Write a note on TAMBIS ontology. (04 Marks)

OR

- 6 a. What is MATLAB? Write a note on the use of MATLAB in Bioinformatics applications. (08 Marks)  
b. Explain Arithmetic utilities of MATLAB tool box. (08 Marks)

### Module-4

- 7 a. What are Variables? Mention the rules to name the variables in C. (05 Marks)  
b. What are Functions? Explain two parameter passing methods in functions, with examples. (07 Marks)  
c. Write a C program to find a given character in vowel or not. (04 Marks)

OR

- 8 a. Explain basic concepts of Object Oriented Programming Language. (08 Marks)  
b. Bring out the types of inheritance in C++ with suitable diagram. (08 Marks)



**Module-5**

- 9 a. Write a C program to find thermal death kinetics of micro organisms and holding time for sterilization. (06 Marks)
- b. Write a C program to find the doubling time for any micro organism to grow up using substrate. (05 Marks)
- c. Write a C program to find the specific growth rate of micro organisms in a bio reactor. (05 Marks)

**OR**

- 10 a. Write a C++ program to find the optimum pH and temperature for maximum enzyme activity. (05 Marks)
- b. Write a C++ program to find the optimal dilution rate for maximum cell productivity. (05 Marks)
- c. Describe the basic feature of NCBI C++ tool kit. (06 Marks)

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