

# CBCS SCHEME

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17BT36

## Third Semester B.E. Degree Examination, Dec.2018/Jan.2019 Basics of Computer Applications

Time: 3 hrs.

Max. Marks: 100

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

### Module-1

- 1 a. What is Linux file? Explain the features of file in Linux. (06 Marks)  
b. Explain the modes of functioning of Vi editor with a neat diagram. (08 Marks)  
c. Explain in detail, the wildcards used in Linux. (06 Marks)

OR

- 2 a. What are XML parsers? Explain its types. (06 Marks)  
b. Write a descriptive note on :  
(i) NeuroML (ii) MAML (08 Marks)  
c. Explain the salient features of DTD in XML document. (06 Marks)

### Module-2

- 3 a. Explain the ISO-OSI model of internet protocols. (10 Marks)  
b. Explain the structure of HTML document and discuss on HTML tags. (10 Marks)

OR

- 4 a. What is schema? With a neat diagram, explain the 3-schema architectures of DBMS. (10 Marks)  
b. What is SQL? Explain Insert, Delete and Update commands with syntax and example. (10 Marks)

### Module-3

- 5 a. Briefly explain the various ontology development tools. (10 Marks)  
b. Explain in detail (i) GENE ontology (ii) OBO ontology (10 Marks)

OR

- 6 a. Enumerate any 5 MATLAB built-in functions. (10 Marks)  
b. Discuss the variables and operators used in MATLAB. (10 Marks)

### Module-4

- 7 a. What is OOP? Explain polymorphism and inheritance in detail. (10 Marks)  
b. Explain in detail, C++ data types and arrays. (10 Marks)

OR

- 8 a. What is a variable? List the rules for formatting variable names. (10 Marks)  
b. What is a constructor? Explain the different types of constructors with example. (10 Marks)

### Module-5

- 9 a. Write a C program to find thermal death kinetics of microorganism. (10 Marks)  
b. Write a C program to determine specific growth rate and doubling time. (10 Marks)

OR

- 10 a. Write a C++ program to find optimum temperature and pH for maximum enzyme activity. (10 Marks)  
b. Write a C program to find holding time for sterilization. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and/or equations written eg, 42+8 = 50, will be treated as malpractice.