

Syllabus Computer Science

Session : 2011-2012

Class : B.Sc.II (Semester-III)

3S - COMPUTER SCIENCE Object-Oriented Programming with C++ and Web Technology.

The examination in Computer Science will comprise One theory Paper and Practical examination for each semester. The theory paper will be of 3 Hours Duration and carry 80 marks. The Practical examination will be of 4 Hrs duration and carry 50 marks. The distribution of marks in Practical examination is given as. :

1)Program writing / execution (on group A & B)	: 30 marks
2)Practical / Record	: 10 marks
3)Viva-voce	: 10 marks
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Total	50 marks
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Unit-I : Concept of OOP, Comparison with POP, features of OOP, advantages and applications of OOP, Introduction to C++, structure of C++ program, tokens, keywords, identifiers, basic data types & user defined data types, Constants, variables, declaration of variables, dynamic initialization of variables, types of symbolic constants.

Unit-II : Operators : Scope resolution operator, member dereferencing operator, implicit & explicit conversions. Control structures : if, switch, do.. while, while, for statements Functions: Function prototype, Function calling and returning, their types, inline functions, default arguments, constant arguments, function overloading.

Unit-III : Classes and objects : Data abstraction and, Encapsulation, Data Hiding, class specification, defining objects, accessing class member, defining member functions, Nesting of member function, friend functions, passing objects as arguments, Returning objects from functions. Constructors : Defining constructor, parameterized constructor, multiple constructors in a class, constructor with default argument, copy constructor, destructor.

Unit-IV : Basic elements of communication system, Network concept, advantages, goals, network topologies : Star, ring, completely connected N/W, Hybrid N/W, multipoint n/w, LAN, WAN, OSI model.

Unit-V : HTML : Introduction, Need of HTML application of HTML, Basic structure of HTML, HTML tags and attributes : Adding tags, include attributes <HTML >, <HEAD >, <TITLE >, <BODY >, <P >,
, <HR >, Heading tags, table tags, <LINK>, , <ROWSPAN >, <COLSPAN >, <MARQUEE >,<Attributes : allign, background colour, text color.

Unit-VI : Style sheet : advantages of style sheet & applications of style sheet, CSS : Introduction, CSS style-sheet properties : Units, classes and ID attributes. Properties :Text, font, colour, background, border, display, height, line, margin, width, CSS with HTML.

Book recommended :

- 1) Object Oriented Programming with C++ : E BalgurusamyTMH.
- 2) Mastering C++ : K.R. Venugopalan
- 3) Programming with C++ : Robert Lafore
- 4) Programming with C++ : R.S. Nisar Ali
- 5) Computer Fundamental and Networking : P.K. Sinha
- 6) Local Area Network : Keiser, TMH, Publication
- 7) Computer Networks : Andrew S. Tanenbaum, PHI.
- 8) HTML in 21 days : Tech media publication
- 9) HTML4 for dummies Mastering by Ed Tittel, IDGPublications.
- 10) HTML4 Unleashed, Professional Reference Edition by RickDarnell
- 11) C++ for beginners : by B.M. Harwani, SPD Publications

Practicals: Minimum 16 practicals based on

A. Unit - I, II, III (Minimum 8 practicals)

B. Unit - IV, V, VI (Minimum 8 practicals)