

7. (A) State the rules for Virtual Functions. 6  
 (B) Explain the file I/O functions write () and read ().  
 Give program example. 6

8. (A) What is XML element ? Explain with example. Also  
 state the naming rules for them. 6  
 (B) Create XML document to show the information of  
 three films such as Filmname, Director, Language  
 and Category. 6

**OR**

9. (A) Explain the design goals and features of XML. 6  
 (B) What is CSS with XML ? Explain. 6
10. (A) What is DTD ? Describe the internal DTD with  
 example. 6  
 (B) What is an attribute ? Explain the various types of  
 attributes. 6

**OR**

11. (A) Explain various element content models. 6  
 (B) Explain the entities along with their types. 6
12. (A) State the differences between XML Schema and  
 DTD. 6  
 (B) Explain the XML Schema Data Types. 6

**OR**

13. (A) Explain the various element types and attributes. 6  
 (B) Explain the terms default and prefix name space.  
 Give example. 6

**AQ-706**

**B.Sc. Part – II (Semester – IV) Examination**  
**4S : COMPUTER SCIENCE/COMPUTER APPL./**  
**INFORMATION TECHNOLOGY**  
**(Advanced C++ & Web Designing)**

Time—Three Hours]

[Maximum Marks—80

- Note :—** (1) All questions are compulsory.  
 (2) Question No. 1 carries 8 marks and all  
 other questions carry 12 marks each.  
 (3) Assume suitable data wherever necessary.

1. (A) Fill in the blanks and rewrite the following : 2  
 (i) \_\_\_\_\_ keyword is used to define the operator  
 function.  
 (ii) \_\_\_\_\_ members of a class do not participate  
 in the inheritance process.  
 (iii) PCDATA stands for \_\_\_\_\_.  
 (iv) CSS stands for \_\_\_\_\_.  
 (B) Select the correct alternative and rewrite the  
 following : 2  
 (i) The process of creating a specific class from a  
 class template is called as \_\_\_\_\_.  
 (a) Initialisation  
 (b) Declaration  
 (c) Instantiation  
 (d) None of the above

(ii) Which of the following operators can not be over loaded ?

- (a) Insertion (<<)
- (b) New Operator
- (c) Modular Division (%) Operator
- (d) Scope Resolution Operator (::)

(iii) The attribute used to define a new namespace is \_\_\_\_\_.

- (a) XMLNS
- (b) XmlNameSpace
- (c) Xmlns
- (d) XmlNs

(iv) XML schema defines \_\_\_\_\_.

- (a) Elements
- (b) Attributes
- (c) Data types
- (d) All of the above

(C) Answer the following in one sentence : 4

- (i) What is a Function Template ?
- (ii) What is a two Dimensional Array ?
- (iii) What is a well formed XML document ?
- (iv) What is XML namespace ?

2. (A) Explain the concept of "this" pointer with appropriate program example. 6

(B) What is Operator Overloading ? Write a program to overload unary minus (-) operator. 6

**OR**

3. (A) Explain Array of pointers to objects with program example. 6

(B) Write a program to overload the lessor equal to (<=) operator to compare two strings. 6

4. (A) What is inheritance ? Explain Single Inheritance with appropriate program example. 6

(B) What is a Class Template ? Explain with appropriate program example. 6

**OR**

5. (A) Explain Hybrid Inheritance with appropriate program example. 6

(B) Explain overloading of template functions. Give program example. 6

6. (A) What is a Virtual Function ? Explain with program example. 6

(B) Explain the file I/O functions put( ) and get( ). Give program example. 6

**OR**