AW–1722

B.Sc. (Part—II) Semester—IV *Examination*

COMPUTER SCIENCE/COMPUTER APPLICATION/INFORMATION TECHNOLOGY

(Old)

(Advanced C++ and Web Designing)

Time : Three Hours] [Maximum Marks : 80

N.B. :— (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 :

(i) _____ provides the concept of reusability.

(ii) An array name followed by two subscripts is called _____.

(iii) DTD stands for _____.

(iv) Namespace is declared with prefix is called as _____ namespace. 2

(B) Choose correct alternative :

(i) A pointer a variable that holds _____ of another variable.

(a) Value (b) Memory address

(c) Data type (d) None of these

(ii) Template provides :

(a) Reusability of code (b) Eliminates redundant coding

(c) Support generic programming (d) All are correct

(iii) If element does not contain any content then such element is called a/an _____.

(a) Root element (b) Empty element

(c) Nested element (d) Sibling element

(iv) _____ defines a class of xml documents.

(a) XML Schema (b) Namespace

(c) DTD (d) CSS 2

(C) Answer in one sentence each :

(i) What is derived class ?

(ii) What is pointer ?

(iii) What is element ?

(iv) What is CSS ? 4

2. (A) What is array ? Explain declaration and initialization of one dimensional array. 6

(B) What is operator overloading ? Explain with suitable example. 6

OR

3. (A) Explain pointer to object with suitable example. 6

(B) Write a program in C++ to overload assignment (=) operator. 6

4. (A) Explain multiple inheritance with suitable example. 6

(B) What is function template ? Explain with suitable example. 6

OR

5. (A) What is class template ? Explain with example. 6

(B) Explain hybrid inheritance with suitable example. 6

6. (A) Explain pointers to derived class with example. 6

(B) Explain opening and closing of file with syntax and example. 6

OR

7. (A) Explain hierarchy of file stream classes. 6

(B) What is virtual function ? Explain with suitable example. 6

8. (A) Explain the basic structure of XML document. 6

(B) Explain the term XML element with example. State the naming rules for XML element. 6

OR

9. (A) Explain document prolog and document instance. 6

(B) State and explain the features of XML. 6

10. (A) What is meant by DTD ? Describe the internal DTD with example. 6

(B) What is entity ? Explain with suitable example. 6

OR

11. (A) Explain element content model with suitable example. 6

(B) What is the need of DTD ? Describe the external DTD with suitable example. 6

12. (A) Explain various features of XML Schema. 6

(B) Explain default and prefix declaration of namespace. 6

OR

13. (A) Compare XML Schema with DTD by giving suitable example. 6

(B) What are the various XML Schema data types ? 6