



PBB-003-1043002

Seat No. _____

B. Sc. (I.T.) (Sem. III) (CBCS) Examination

November / December - 2018

CS - 14 : C++ & Object Oriented Programming

Faculty Code : 003

Subject Code : 1043002

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- 1 (a) Objective type questions : 4
- (1) C++ provides various types of tokens that include _____, _____, _____ and _____.
 - (2) State briefly why is it necessary to include the file iostream in all our programs ?
 - (3) List out operators in C++.
 - (4) Define input output operators.
- (b) Attempt any **one** out of two : 2
- (1) What is C++ ? List out application of it ?
 - (2) Explain cout and cin with example.
- (c) Attempt any **one** out of two : 3
- (1) Difference between structure and class with example.
 - (2) Differentiate OOP and POP.
- (d) Attempt any **one** out of two : 5
- (1) Explain structure of C++ program ?
 - (2) Explain tokens in C++.
- 2 (a) Objective type questions : 4
- (1) It is possible to reduce the size of your program by calling and using _____ at different place in the program.
 - (2) A class is an extension to the _____ data type. A class can have both _____ and _____ as member.
 - (3) Distinguish between the following two statements :
T1 and T2 are objects of class time
time T2(T1); time T2 = T1;
 - (4) List out access specifier.

- (b) Attempt any **one** out of two : 2
- (1) Explain class visibility level (public,private, protected) ?
 - (2) Explain default argument with example.
- (c) Attempt any **one** out of two : 3
- (1) What is friend function ? Explain with example.
 - (2) What is function overloading ? Explain with example.
- (d) Attempt any **one** out of two : 5
- (1) What is call by reference? Explain it with example.
 - (2) Explain static member variable and function with example ?
- 3** (a) Objective type questions : 4
- (1) We have two classes X and Y. If A is an object of X and B is an object of Y and we want to say A=B; what type of conversion should be used ?
 - (2) Difference between constructor and destructor.
 - (3) Define purpose of operator overloading.
 - (4) 3 Identify the error in the following program :
- ```

class space{
 int mcount;
 public:
 space(){
 mcount=0;
 }
 space operator ++(){
 mcount ++;
 }
};

void main(){
 space objspace;
 objspace++;
}

```
- (b) Attempt any **one** out of two : 2
- (1) Which operator may be used for string concatenation.
  - (2) List out different methods of type conversion.

- (c) Attempt any **one** out of two : **3**
- (1) Explain copy constructor with example.
  - (2) Define characteristics of constructor.
- (d) Attempt any **one** out of two : **5**
- (1) What is type conversion ? Explain any one type conversion with example.
  - (2) Explain parameterize constructor with example.
- 4 (a) Objective type questions : **4**
- (1) State whether the following statements are TRUE or FALSE. A base class is never used to create objects.
  - (2) When the properties of \_\_\_\_\_ class are inherited by \_\_\_\_\_ class. It is called hierarchical inheritance.
  - (3) When do we make a class abstract ?
  - (4) What does THIS pointer point to ?
- (b) Attempt any **one** out of two : **2**
- (1) Define polymorphism and List out types of polymorphism.
  - (2) Explain this pointer.
- (c) Attempt any **one** out of two : **3**
- (1) Differentiate constant pointer and pointer to constant.
  - (2) Difference between virtual function and pure virtual function.
- (d) Attempt any **one** out of two : **5**
- (1) What is inheritance and Explain All type of inheritance with example ?
  - (2) What is virtual function explain with example ?

- 5 (a) Objective type questions : 4
- (1) A programmer can define own manipulator that could represent a set of format function. (TRUE or FALSE)
  - (2) Explain use of width( ).
  - (3) The ios::ate mode allow us to write data anywhere in the file. (TRUE or FALSE)
  - (4) Explain use of seekg( ).
- (b) Attempt any **one** out of two : 2
- (1) Explain the use of manipulator.
  - (2) Define need of exception handling.
- (c) Attempt any **one** out of two : 3
- (1) List out all formatted and unformatted I/O function with syntax ?
  - (2) Explain file pointer and briefly explain function for manipulating file pointer ?
- (d) Attempt any **one** out of two : 5
- (1) Explain exception handling mechanism with example ?
  - (2) What is Generic programming (template) ? How is it implemented in C++ ? Explain with example.
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