



**PBQ-0030011007**

Seat No. \_\_\_\_\_

**B. Sc. (Sem. I) (CBCS) Examination**

**November / December - 2018**

**CS - 101 : Programming Fundamentals  
using C & C++  
(New Course)**

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

[Total Marks : 70

- 1 (a) Answer the following questions. 4
- (1) Which symbol is used for single line comment ?
  - (2) Define scope of variables.
  - (3) POP stands for .....
  - (4) What is header files ?
- (b) Answer the following questions : (any one) 2
- (1) What is comment in program ? Explain different ways to write it.
  - (2) What is formatted output ?
- (c) Answer the following questions : (any one) 3
- (1) Explain any two functions from <conio.h>.
  - (2) Define global variable and local variable.
- (d) Answer the following questions : (any one) 5
- (1) List out and explain all details about data types available in C.
  - (2) Write a short note on operators.
- 2 (a) Answer the following questions. 4
- (1) A switch case without break in any of the case is a compilation error. True or False ?
  - (2) \_\_\_\_\_ loop occurs at least once.
  - (3) A function that does not return any value is called \_\_\_\_\_ function.
  - (4) Which unary operator is used to increase value of a variable by 1 ?
- (b) Answer the following questions : (any one) 2
- (1) What is command line arguments ?
  - (2) List out limitations of switch case.

- (c) Answer the following questions : (any one) **3**
- (1) Write a program to generate Fibonacci series for N-Terms.
  - (2) Differentiate entry control loop and exit control loop.
- (d) Answer the following questions : (any one) **5**
- (1) Write a short note on UDF.
  - (2) Explain all conditional statements.
- 3** (a) Answer the following questions. **4**
- (1) malloc() returns \_\_\_\_\_ if it fails to allocate memory.
  - (2) Member of structure can be accessed using \_\_\_\_\_ operator using variable of type structure.
  - (3) What is EOF ?
  - (4) \_\_\_\_\_ keyword is used to allocate memory dynamically in C++.
- (b) Answer the following questions : (any one) **2**
- (1) Differentiate call by value and call by reference.
  - (2) What is structure ? Explain with example.
- (c) Answer the following questions : (any one) **3**
- (1) Differentiate union and structure.
  - (2) Explain use of #define and # include.
- (d) Answer the following questions : (any one) **5**
- (1) Explain file handling functions of C language.
  - (2) Write a short note on DMA.
- 4** (a) Answer the following questions. **4**
- (1) A pointer occupies \_\_\_\_\_ bytes.
  - (2) A \_\_\_\_\_ pointer refers to an object that currently invokes a member function.
  - (3) We can overload all the operators of C++. True or False ?
  - (4) Binary operator overloaded through a member function, the left hand operand must be \_\_\_\_\_ of the relevant class.
- (b) Answer the following questions : (any one) **2**
- (1) Define compile time polymorphism.
  - (2) Explain pointer to pointer.

- (c) Answer the following questions : (any one) **3**
- (1) Write a program to create a pointer to an array of size 10, get values for array and display all values given both using pointer.
  - (2) Differentiate pointer and reference.
- (d) Answer the following questions : (any one) **5**
- (1) Explain pointer to structure with an example.
  - (2) Explain operator overloading with an example.
- 5** (a) Answer the following questions. **4**
- (1) What is encapsulation ?
  - (2) A class can have more than one destructor. True or False ?
  - (3) A “do-nothing” function means \_\_\_\_\_.
  - (4) \_\_\_\_\_ is a special member function having same as class name and it is invoked whenever an object is created.
- (b) Answer the following questions : (any one) **2**
- (1) Define inheritance and list out its types.
  - (2) What is destructor ?
- (c) Answer the following questions : (any one) **3**
- (1) Explain constructor overloading with example.
  - (2) Explain try, catch and throw.
- (d) Answer the following questions : (any one) **5**
- (1) What is polymorphism ? Explain with an example of pure virtual function.
  - (2) Write a short note on friend function.
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