PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BCA DEGREE EXAMINATION DECEMBER 2022
(First Semester)

Branch - COMPUTER APPLICATIONS

PRINCIPLES OF COMPUTER PROGRAMMING

Time: Three Hours   Maximum: 50 Marks

SECTION-A (5 Marks)
Answer ALL questions
ALL questions carry EQUAL marks   (5 x 1 = 5)

1   Unsigned integer occupies _____ bytes.
(i) 1   (ii) 2
(iii) 3   (iv) 4

2   Single dimensional array index starts from _____
(i) -1   (ii) 1
(iii) 0   (iv) 2

3   What is the return type of ferror()?
(i) int   (ii) float
(iii) FILE   (iv) char

4   _____ operator cannot be overloaded in c++.
(i) ++   (ii) +
(iii) >   (iv) ::

5   A class can inherit from more than one classes is called _____
(i) Hybrid inheritance   (ii) Multilevel inheritance
(iii) Multiple inheritance   (iv) All the above

SECTION - B (15 Marks)
Answer ALL Questions
ALL Questions Carry EQUAL Marks   (5 x 3 = 15)

6   a. Compare and contrast compiler with interpreter.
OR
b. Explain about constants in C with example.

7   a. How do you use break statements inside switch case? Give an example.
OR
b Develop a C program to find the largest among three numbers.

8   a. Explain about call by value. Give an example.
OR
b Illustrate the use of recursive functions with example.

9   a. Bring out the advantages of OOPs.
OR
b. Describe about access specifiers and its limitations.

10   a. Outline the rules of operator overloading.
OR
b. Summarize the various characteristics of constructors.

SECTION -C (30 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** Marks   (5 x 6 = 30)

11 a. Discuss the different types of operators with example.
OR
   b. Analyze the structure of C program. Give an example.

12 a. Highlight the working principles of any 3 standard functions.
OR
   b. Analyze the working principles of for loop with syntax and flowchart.

13 a. Discuss the characteristics of union with example.
OR
   b. Elucidate about the various file operations with example.

14 a. Discuss the procedure to access class members. Give an example.
OR
   b. Interpret the concept of function overloading with example.

15 a. Discuss single and multiple inheritance with example.
OR
   b. Examine virtual functions with example.

Z-Z-Z   END