

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2018  
(First Semester)

Branch -**SOFTWARE SYSTEMS**  
(Five year integrated)

**PROGRAMMING IN C**

Time: Three Hours

Maximum: 75 Marks

**SECTION-A (10 Marks)**

Answer **ALL** questions

**ALL** questions carry **EQUAL** marks

(10 x 1 = 10)

- 1 Choose the conditional operator.  
(i) && (ii) ||  
(iii) == (iv) ?:
- 2 Which is not a keyword?  
(i) void (ii) case  
(iii) main (iv) break
- 3 Which is not a jump statement?  
(i) goto (ii) break  
(iii) continue (iv) default
- 4 The keyword 'label' is available for \_\_\_\_\_ statement.  
(i) goto (ii) break  
(iii) continue (iv) default
- 5 Name the function used to find the string length.  
(i) strcpy() (ii) strlen()  
(iii) strcmp() (iv) strcon()
- 6 Name the function is sued to compare two strings.  
(i) strcpy() (ii) strlen()  
(iii) strcmp() (iv) strcon()
- 7 Function does not return any value for \_\_\_ data type.  
(i) void (ii) int  
(iii) float (iv) char
- 8 Which operator is used to access structure members?  
(i) \* (ii) .  
(iii) -> (iv) ? :
- 9 What mode of the file is used to open for write the content with existing data?  
(i) r (ii) w  
(iii) a (iv) e
- 10 What mode of the file is used to open the file for reading the data?  
(i) r (ii) w  
(iii) a (iv) e

**SECTION - B (25 Marks)**

Answer **ALL** questions

**ALL** questions carry **EQUAL** Marks (5 x 5 = 25)

- 12 a Classify jump statements with examples.  
OR  
b Prepare a C program to find the factorial using recursive functions.
- 13 a Discuss about multidimensional array with examples.  
OR  
b Explain about functions with examples.
- 14 a Prepare a program to swap two numbers using call by reference.  
OR  
b State the string functions with examples.
- 15 a Prepare a program to copy the content of one file into another.  
OR  
b Explain the different types of file operations with examples.

**SECTION -C (40 Marks)**

Answer **ALL** questions  
**ALL** questions carry **EQUAL** Marks (5 x 8 = 40)  
***Question no. 16 is compulsory***

- 16 What is the need of Structure? Does structure bring additional overhead to program? Justify for the following scenario :  
Define a structure called, student that contains name, regno and 5 subject marks and write a program to find the total and average marks of a student.  
(1 + 3 + 4)
- 17 a Explain the types of if... else statements with examples.  
OR  
b Construct a C program to find the biggest number among the given three numbers.
- 18 a Construct a C program for matrix addition, subtraction and multiplication.  
OR  
b Explain the various types of functions with examples.
- 19 a Construct a C program to prepare the pay bill of an employee using Structure.  
OR  
b Explain in detail about dynamic memory allocation with examples.
- 20 a Explain the types of input / output file operations with examples.  
OR  
b Construct a C program to count the number of words given as a input in the command line arguments.