

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc(SS) DEGREE EXAMINATION MAY 2024
(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 Which symbol is used to represent processing that takes place in flowchart?
(i) Diamond (ii) Rectangle
(iii) Ellipse (iv) Arrow
- 2 Which symbol is used for the C-preprocessors?
(i) # (ii) ""
(iii) \$ (iv) &
- 3 Which is valid C expression?
(i) int my_num = 100,000; (ii) int mynum = 1000;
(iii) int \$my_num = 10000; (iv) int my num = 1000;
- 4 Which control structures is used to make decision between two or more alternatives in C?
(i) switch case (ii) For loop
(iii) IF statemnet (iv) While loop
- 5 Among the following, Which function calls itself ?
(i) Self Function (ii) Static Function
(iii) Auto Function (iv) Recursive Function
- 6 What is the highest index of an array with 10 elements in C?
(i) 9 (ii) 11
(iii) 10 (iv) 0
- 7 What does pointer value refers to?
(i) Float value (ii) Any valid address in memory
(iii) Integer value (iv) String value
- 8 Which operator is used to connect structure name to its member name?
(i) dot operator(.) (ii) Pointer operator(&)
(iii) logical operator(&&) (iv) Arrow operator(->)
- 9 What does it indicates,If the mode includes b after the initial letter?
(i) text file (ii) binary file
(iii) big text file (iv) blueprint text
- 10 What is the purpose of fflush(NULL) ?
(i) flushes all input streams (ii) flushes all previous contents
(iii) flushes all output streams (iv) flushes all appended text

Cont...

SECTION - B (25 Marks)

Answer ALL questions

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

- 11 a Write about modular programming design concept with its advantages in detail.
OR
b Sketch a neat flowchart for finding biggest among three numbers & write its algorithm.
- 12 a Write about symbolic constant with example program.
OR
b Show how break and continue statements are used in a C-program, with example
- 13 a What is an array? How a single dimension and two-dimension arrays are declared and initialized?
OR
b Explain string manipulation library functions with their syntaxes and example program.
- 14 a Explain unions in C language? Differentiate structures and unions.
OR
b Write about self-referential structure in C with example program.
- 15 a Discuss in detail about files & its different types. Write the syntax and example program to open a file.
OR
b Explain with example program about Files with binary mode.

SECTION -C (40 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 x 8 = 40)

Question No. 16 is Compulsory

- 16 Develop a C program to find biggest of 3 numbers.
- 17 a Explain if, if-else and nested if-else with examples and syntax.
OR
b Discuss about For statement with its syntax and example program
- 18 a Define functions and explain how to pass arguments to a function.
OR
b Write about different storage classes with example program.
- 19 a What is a pointer? Explain how the pointer variable declared and initialized.
OR
b What is structure? Explain C syntax of structure declaration with example.
- 20 a Outline Enumerated data type in detail with example program.
OR
b Discuss in detail about command line arguments and example program.