

[4]

SECTION 'C'

4 × 10 = 40

Long Answer questions (Word limit 400-450 words.)

Q.1. What is register specifier? Explain.

OR

Write short notes on different storage classes.

Q.2. Explain passing pointers as function arguments with example.

OR

Explain the following terms with example –

(i) Pointer Arithmetic (ii) Sorting Algorithm

Q.3. Describe recursion with example.

OR

Explain the following terms –

(i) Conditional compilation (ii) Line Control

Q.4. Write the differences between structure and union.

OR

Write short notes on standard library for Input / Output.

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[1]

ROLL NO.....

MATH. 405/22

IV SEMESTER EXAMINATION, 2022

M. Sc. (MATHEMATICS)

PAPER-V

PROGRAMMING IN C (WITH ANSI FEATURES) II

TIME: 3 HOURS

MAX.- 70

MIN.- 14

Note: The question paper consists of three sections A, B & C. All questions are compulsory.

Section A- Attempt all multiple choice questions.

Section B- Attempt one question from each unit.

Section C- Attempt one question from each unit.

SECTION 'A'

MCQ (Multiple choice questions)

2 × 8 = 16

1. In 'C' language, by making local variable -----, they can retain their values between function calls.

(a) register (b) extern (c) static (d) auto

2. Which of the following is the default storage class for local variable in 'C'?

(a) auto (b) register (c) extern (d) static

3. Library function gatech () belongs to which header file?

(a) stdio.h (b) canio.h (c) stdlib.h (d) string.h

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4. When we mention the prototype of a function?
(a) defining (b) prototyping
(c) declaring (d) calling
5. The keyword used to transfer control from a function back to the calling function is -
(a) switch (b) goto
(c) go back (d) return
6. If a variable is pointer to a structure, then which of the following operator is used to access data member of the structure through the pointer variable?
(a) . (b) \$ (c) & (d) →
7. A pointer is –
(a) A keyword used to create variable.
(b) A variable that stores address of an instruction.
(c) A variable that stores address of other variable.
(d) All of the above.
8. How will you free the allocated memory?
(a) remove (var-name) (b) free (var-name)
(c) delete (var-name) (d) dalloc (var –name)

[3]

SECTION 'B'

4 × 6 = 24

Short Answer Type Questions (Word limit 200-250 words.)

UNIT-I

- Q.1.** Explain Global variable with example.

OR

Write the rules for the syntax and semantics of the storage class.

UNIT-II

- Q.2.** Discuss how to access array elements through pointer.

OR

Write a C program to input a word and check whether it is a palindrome word or not.

UNIT-III

- Q.3.** Write a C program to demonstrate pointer to function.

OR

Write a C program to find the factorial of any inputted number using function.

UNIT-IV

- Q.4.** Discuss the enum declaration with example.

OR

Explain the linked list with example.