

**2024/FYUG/ODD/SEM/
CADSM-101T/303**

FYUG Odd Semester Exam., 2024

COMPUTER APPLICATION

(1st Semester)

Course No. : CADSM-101T

(Programming with C)

Full Marks : 70

Pass Marks : 28

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

UNIT—I

1. Answer any *two* from the following : 2×2=4

(a) What are the built-in data types in C?

(b) Explain keywords with example.

(c) What is the difference between `i++` and `++i`? Explain with example.

2. Explain 'while', 'do-while' and 'for loop' with suitable examples. What is the difference between 'while' and 'do-while' loop? 10

J25/590

(Turn Over)



OR

- 3. (a) Write a C program to convert temperature from Fahrenheit to Celsius. 5
- (b) What is switch-case? Write a program in C using switch-case. 5

UNIT—II

- 4. Answer any two from the following : 2×2=4
 - (a) What is a function?
 - (b) What do you mean by static variable?
 - (c) What is header file? Write down the purpose of <stdio.h>.
- 5. Write a C program in C to calculate the factorial of a number _____.
 - (a) using recursion and
 - (b) without using recursion. 5+5=10

OR

- 6. (a) What do you mean by function prototype? Explain with example. 2
- (b) What are the actual argument and formal argument? 2
- (c) Explain about storage classes. 6

UNIT—III

- 7. Answer any two from the following : 2×2=4
 - (a) Write down the advantages of using pointer.
 - (b) Are the expressions *ptr++ and ++*ptr same? Justify.
 - (c) What is command line argument?
- 8. What is array? What is the relationship between array name and pointer? Write a C program to add two 2-dimensional arrays. 2+2+6=10

OR

- 9. (a) Write a program using pointers to determine the length of a character string. 5
- (b) What are the advantages and disadvantages of using array of pointers to string instead of an array of strings? Explain with an example. 5

UNIT—IV

- 10. Answer any two from the following : 2×2=4
 - (a) What is union?
 - (b) Write down the difference between structure and union.
 - (c) Define self-referential structure.

11. (a) What is structure? How are the members of a structure variable assigned initial values? What restrictions are applied to the structure's storage class when values are assigned? 2+2+2=6
- (b) Write a C program to store student's information using structure. 4

OR

12. (a) How is union member accessed? In what way does the initialization of a union variable differ from the initialization of a structure variable? For what kinds of applications are unions useful? 5
- (b) Write a C program using union that contains the members : Roll no, Age and Salary. 5

UNIT—V

13. Answer any *two* from the following : 2×2=4
- (a) What do you mean by formatted output statement? Give example.
- (b) What is macro? Give an example.
- (c) What do you mean by enumeration?

14. (a) What do you mean by opening and closing a data file? How is it accomplished? 5
- (b) Summarize different file types that can be specified by fopen function. 5

OR

15. (a) Write the steps to read a data file. 3
- (b) What do you mean by command line preprocessor? Explain with suitable example. 7
