

# PRIYADARSHINI COLLEGE OF ENGINEERING, NAGPUR

Department: Information Technology

Semester: III

Section: A

CAT- II (2023-24)

Subject: <sup>PLDC</sup> ~~Theory of Computation~~  
Duration: 1.5 Hrs

Subject Code: BEIT302T  
Max. Marks: 35

Note:

- 1) All questions are compulsory.
- 2) All questions carry marks as indicated.

Q. No.	Questions	Marks	CO	BL
1. a.1	In 'C', what is a function primarily used for? a) Printing output b) Decision making c) Variable declaration d) Code organization and reusability	1	CO3	1
1. a.2	How many times the program will print "Hello"? int main() { printf("Hello"); main(); return 0; } a) Infinite times b) 32767 times c) 65535 times d) Till stack overflows	1	CO3	1
1. b	Write a program to generate Fibonacci series using recursion.	5	CO3	3
OR				
2. a.1	Union differs from structure in the following way a) All members are used at a time b) Only one member can be used at a time c) Union cannot have more members d) Union initialized all members as structure	1	CO3	1
2. a.2	The operator used to get value at address stored in a pointer variable is a) &      b) *      c) &&      d)	1	CO3	1
2. b	Illustrate call by value and call by reference with suitable example.	5	CO3	2
3. a.1	What does argc and argv indicate in command-line arguments? (Assuming: int main (int argc, char *argv[])) a) argument count, argument variable b) argument count, argument vector c) argument control, argument variable d) argument control, argument vector	1	CO4	1
3. a.2	Which one of the following is correct syntax for opening a file. a) FILE open(const*filename) b) FILE *fopen(const *filename)	1	CO4	1

- c) FILE \*open(const \*filename, const char \*mode)  
d) FILE \*fopen(const \*filename, const char \*mode)
3. b Explain various file opening modes. 5 CO4 2
3. c Write a C program to demonstrate command line argument with suitable example. 7 CO4 3

OR

4. a.1 When fopen() is not able to open a file, it returns  
a) Runtime error b) NULL c) Compiler Dependent d) EOF 1 CO4 1
4. a.2 Which of the following true about FILE \*fp 1 CO4 1  
a) FILE is a structure and fp is a pointer to the structure of FILE type  
b) FILE is a keyword in C for representing files and fp is a variable of FILE type.  
c) FILE is a buffered stream  
d) FILE is a stream
4. b Write a C program which reads the text from one file and copy into another file by using file handling. 6 CO3 3
4. c Explain the following: 6 CO3 1  
i) Bitwise operator ii) Enumerated data types. iii) Typedef.
5. a.1 Which of the following header files must necessarily be included to use dynamic memory allocation functions? 1 CO5 1  
a) memory.h b) stdio.h d) dos.h c) stdlib.h
5. a.2 What is the return type of malloc () or calloc() 1 CO5 1  
a) void\*\* b) void \* c) Pointer of allocated memory type d) int \*
5. b Explain the purpose of following functions. 6 CO5 2  
i) calloc ( ) ii) malloc ( ) iii) realloc ( )
5. c Explain dynamic memory allocation in detail. 6 CO5 2

OR

6. a.1 Which of the following header file must be included in your property if you want to use graphics property? 1 CO5 1  
a) graphics.h b) screen.h c) graph.h d) stdio.h
6. a.2 Which function is used to initialize the graphics drivers in 'C' 1 CO5 1  
a) closegraph b) circle c) initgraph d) line
6. b Explain following standard graphics methods any three. 06 CO5 2  
i) moveto ( ) ii) putpixel ( ) iii) setpixel ( ) iv) initgraph ( )  
v) outtextxy ( )
6. c Write a program using C graphics to print 4 concentric circles. 06 CO5 3