Hall Ticket No | | | | | | | | | | | Question Paper Code: ACSC05

INSTITUTE OF AERONAUTICAL ENGINEERING
(Autonomous)
Dundigal, Hyderabad - 500 043

MODEL QUESTION PAPER-II

B.Tech II Semester End Examinations, January–2023

Regulations: IARE - UG 20

Programming for Problem Solving using C Laboratory

COMPUTER SCIENCE AND ENGINEERING (cyber security)

Time: 3 hour Maximum Marks: 70

Answer any ONE Question from the following
All parts of the question must be answered in one place only

1. (a) Explain bit fields in C. [BL:Understand — CO:1 — Marks: 5m]

   (b) Problem Statement: Ash Ketchum wants to train many Pokemons, each of which can be performed in a given time. So, he asked his friend Misty to train those Pokemons which takes minimum time to train among the remaining Pokemons. Ash will train those Pokemons which will take maximum time to train among the remaining Pokemon's. You will be given the time of training.
   Example:
   Input:
   2
   4
   5 6 2 1
   3
   6
   2 3 4 5 6 7
   13
   Output:
   0 2
   2 3 [BL:Apply — CO:2 — Marks: 10m]

   (c) Develop a C program to read a set of arguments and display all arguments given through command line.
   [BL:Apply — CO:2 — Marks: 5m]

2. (a) List the decision making statements in C. [BL:Understand — CO:4 — Marks: 5m]

   (b) Write a program in C to check whether a number is a prime number or not using the function.
   Example :
   Input a positive number : 5
   Expected Output :
   The number 5 is a prime number
   [BL:Apply — CO:4 — Marks: 10m]

   (c) Predict the output of the following code.

```
void main()
{
char s1[7] = "1234", *p;
p = s1 + 2;
```

p = “”;
printf(“%s”, s1);
}

[BL:Apply — CO:2 — Marks: 5m]

****END OF EXAMINATION****

COURSE OBJECTIVES:

The course should enable the students to:

I	IDE(Integrated Development Environment) to create, edit, compile, run and debug C programs.
II	Various steps in program development.
III	The structural programming paradigms to build efficient programs in C language.
IV	The files handling concepts like create read from and write to text and binary files.

I COURSE OUTCOMES:

After successful completion of the course, students should be able to:

CO 1	**Develop** the algorithms and draw flowcharts for solving Mathematical and Engineering problems.	Apply
CO 2	**Identify, compile and debug** programs in C language to analyze the results of experiments	Apply
CO 3	**Construct** programs involving decision structures and loops for specifying iteration, which allows code to be executed repeatedly.	Apply
CO 4	**Compare** the difference between call by value and call by reference to provide appropriate communication between functions.	Analyze
CO 5	**Apply** the working of arrays to implement mathematical vectors and matrices, as well as other kinds of rectangular tables.	Apply
CO 6	**Organize** the dynamics of memory by the use of pointers.	Apply

QUESTION PAPER 1: MAPPING OF SEMESTER END EXAMINATION QUESTIONS TO COURSE OUTCOMES

Q.No		All Questions carry equal marks	Taxonomy	CO's	PO's
1	a	Explain bit fields in C.	Understand	CO 1	PO 1

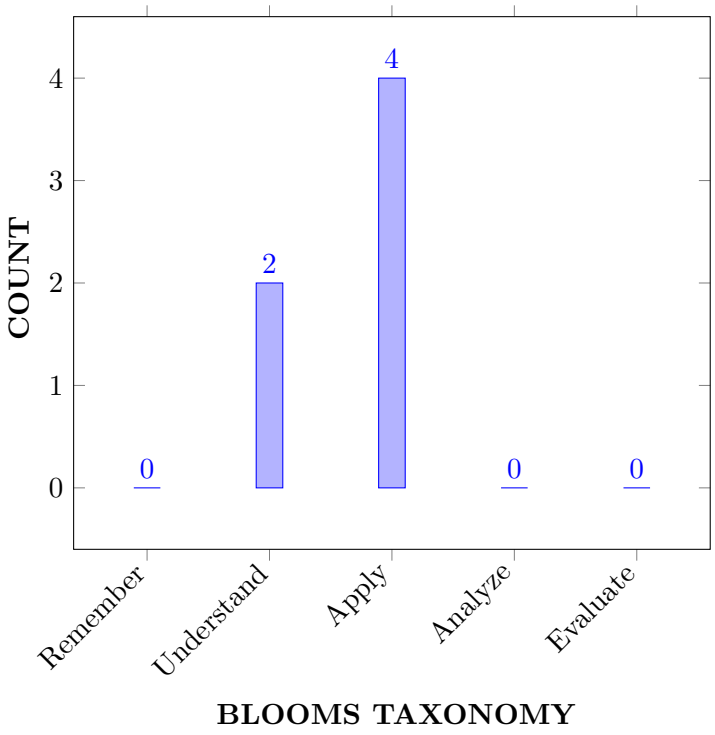
	b	Problem Statement: Ash Ketchum wants to train many Pokemons, each of which can be performed in a given time. So, he asked his friend Misty to train those Pokemons which takes minimum time to train among the remaining Pokemons. Ash will train those Pokemons which will take maximum time to train among the remaining Pokemon's. You will be given the time of training. Example: **Input:** 2 4 5 6 2 1 3 6 2 3 4 5 6 7 13 **Output:** 0 2 2 3	Apply	CO 2	PO 1

	c	Predict the output of the following code.
		void main()
		{
		char s1[7] = "1234", *p;
		p = s1 + 2;
		p = "";
		printf("%s", s1);
		}
			Apply	CO 2	PO 1

2	a	List the decision making statements in C.	Understand	CO 4	PO 1,2 ,3
	b	Write a program in C to check whether a number is a prime number or not using the function. Example : Input a positive number : 5 Expected Output : The number 5 is a prime number	Apply	CO 4	PO 1,2

	c	Predict the output of the following code.
		void main()
		{
		char s1[7] = "1234", *p;
		p = s1 + 2;
		p = "";
		printf("%s", s1);
		}
			Apply	CO 2	PO 1

COURSE KNOWLEDGE COMPETENCY LEVEL



Signature of Course Coordinator **HOD,CSE(CS)**
Ms. J Alekhya, Assistant Professor