



Roll No																			
---------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**PRESIDENCY UNIVERSITY  
BENGALURU**

**SCHOOL OF INFORMATION SCIENCE**

**MID TERM EXAMINATION**

**Winter Semester:** 2021-22

**Course Code:**BSD 1002

**Course Name:** Programming in C

**Program &Sem:**BSD & 2<sup>nd</sup>

**Date:**13/May/2022

**Time:** 01:30 PM – 3:00 PM

**Max Marks:**50

**Weightage:**25%

---

**Instructions:**

(i) Read the all questions carefully and answer accordingly.

---

**Part A[Memory Recall Questions]**

**Answer all the Questions. Each question carries THREE marks.**

**(5Qx 3M=15M)**

1. Differentiate between break and continue statements.
2. Explain nested if() statement.
3. Explain do-while() and while() loops.
4. What is the output of the following code segment

```
main ()
{
  int i=1,n;
  long fact=1;
  printf("enter a number"); //consider 5 is entered
  scanf("%d",&n);
  do
  {
    fact=fact*i;
    i++;
  }
  while (i<=n);
  printf("Value is=%ld", n, fact);
  return;
}
```

5. What is the output of the following code segment:

```
main()
{
int sum=0, i=1,n;
printf("enter value of n:"); //consider 4 is entered
scanf("%d",&n);
while(i<=n)
{
sum=sum+i;
i++;
}
printf("Value=%d",sum);
return;
}
```

### Part B [Thought Provoking Questions]

**Answer all the Questions. Each question carries TEN mark. (2Qx10M=20M)**

6. a. Write a program to print multiplication table of a given number using do-while statement.
- b. Write a program to check whether the number is prime or not using for loop.
7. Write a program to simulate for arithmetic operations using switch statements.

### Part C [Problem Solving Questions]

**Answer all the Questions. Each question carries FIFTEEN mark. (1Qx15M=15M)**

8. A manufacturer produces three products x, y, z which sells in two markets. Annual sales are indicated below:

Products	X	Y	Z
Market 1	10000	2000	18000
Market 2	6000	20000	8000

If the unit sales of the above products are \$3, \$2 and \$1 respectively, help the manufacturer to develop the application in which he can find revenue for Market 1 and Market 2 (Hint: using matrix multiplication)



Roll No																			
---------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**PRESIDENCY UNIVERSITY  
BENGALURU**

**SCHOOL OF INFORMATION SCIENCE**

**END TERM EXAMINATION**

**Winter Semester:** 2021 - 22

**Course Code:** BSD1002

**Course Name:** PROGRAMMING IN C

**Program & Sem:** BSD– II Sem

**Date:** 1<sup>st</sup> July 2022

**Time:** 01:00 PM to 04:00 PM

**Max Marks:** 100

**Weightage:** 50%

**Instructions:**

- (i) *Read the all questions carefully and answer accordingly.*

**Part A [Memory Recall Questions]**

**Answer all the Questions. Each question carries 4 marks.**

**(5Qx 4M= 20M)**

1. Define fgets() and fputs() function (C.O.No.2) [Knowledge]
2. Define function definition with example (C.O.No.3) [Knowledge]
3. Describe how to declare and initialize two dimensional array explain with example (C.O.No.2) [Knowledge]
4. Define looping and explain the syntax of do while loop with example. (C.O.No.1) [Knowledge]
5. Define pointer. Explain how to declare and initialize a pointer variable. (C.O.No.3) [Knowledge]

**Part B [Thought Provoking Questions]**

**Answer all the Questions. Each question carries 10 marks.**

**(5Qx10M=15M)**

6. Class Coordinator of the section 2BSD1 want to select the student class representative. A student is eligible to become class representative if he/she has scored minimum of 75% in 12th Standard or less than 15K ranking in the entrance test. A software need to be developed to help Class coordinator to select the class representative translate the same in the form of C application.

(C.O.No.1) [Comprehension]

7. Mr. Sundar work as helpdesk in HDFC bank. Customers approach him frequently to enquire the Interest for the loan taken. A software need to automate the job of Mr. Sundar with following requirements

a. Software will answer any number of customer. The number of customer to be

answered is decided by manager and it should be captured.

b. For each customer Principle amount, rate of interest and period of loan need to be

captured.

c. Compute the Simple interest for each customer.

d. Display the interest of each customer. (C.O.No.1) [Comprehension]

8. Hari wants to buy 10 items from the shop. He want to store the price of all the items. Help Hari to store the price list of all ten items by converting into C program.

Requirements

i: Declare an array of size 10.

ii. Read the price of all ten items.

iii. Display the price of all ten items.

(C.O.No.2) [Comprehension]

9. A mini project is assigned to students where they have to create an application of simple calculator using suitable conditional construct. Write a program to perform simple calculator.

(C.O.No.1) [Comprehension]

10. Explain how to read and print strings using formatted and unformatted input output statements

(C.O.No.3) [Comprehension]

### **Part C [Problem Solving Questions]**

**Answer both the Questions. Each question carries 15 marks.**

**(2Qx15M=30M)**

11.As there is lock down everywhere, and the time allocated for shopping is restricted, Mr. Umar goes for shopping in the specified time, He went to vegetable super market, He purchased some vegetables and fruits the total bill was “m” Rs. and he got a discount of 10% there. Next he went to Buy n Save shop and purchased the groceries and the bill amount generated there was “n” Rs and here he got a discount of 12.5%. Later he went to buy medicine and there the bill was “p” Rs. and there also he got a discount of 18%. His mother asked the bill details and the total amount he spent today. Help to create a C application for the same. (C.O.No. 1) [Application]

12. A student database has to be created which stores the following details student name, sem and cgpa. Create an application for storing the details of n students using appropriate datatype.

(C.O.No. 3) [Application]