

**Tribhuvan University**  
**Institute of Science and Technology**  
**2072**

Bachelor Level/ First Year/ First Semester/ Science  
**Computer Science and Information Technology (CSc. 111)**  
(C-programming)

Full Marks: 60  
Pass Marks: 24  
Time: 3hours.

Candidates are required to give their answers in their own words as far as practicable.  
The figures in the margin indicate full marks.

**Attempt all questions**

1. Draw a flow chart and write an algorithm to find a number is divisible by either 5 or 7? (6)
2. Discuss logical operators along with the truth table. Write a program using switch statement to display EXCELLENT, VERY GOOD, GOOD, SATISFACTORY, or FAIL if the user enters A, B, C,D,E respectively. (3+3)
3. What do you mean by entry-controlled and exit-controlled loop? Write a program to print the following output.(2+4)

```
1
01
101
0101
10101
```

4. Differentiate break statement with continue statement. What is the output if the following program ?(2+4)

```
#include<stdio.h>
#include<conio.h>
#include<math.h>
```

```
Void main()
{
int x=2, n=5, sum=0, i;
clrscr();
for(i=1; i<=n; i++)
{
If(i%2==0)
Sum+=sum-pow(x,i);
else
```

```
sum=sum+pow(x,1);  
}  
Printf("sum=%d",sum);  
Getch();  
}
```

5. Explain pass by value and pass by reference with suitable example of each. (6)
6. What is array? Write a program to find the sum of each row of 3\*2 matrix.
7. What is dynamic memory allocation? Write a program to find sum and average of n numbers entered from the keyboard using dynamic memory allocation to create array to store these n numbers.(2+4)
8. Discuss different file openings modes. Write a program to read all the numbers from the input file "value.dat" and store only even numbers in an output file named as "result.res".(2+4)
9. Discuss with example any five graphics function used in c-programming. (6)
10. Write short notes on:
  - a) Documentation
  - b) structure