Tribhuvan University
Institute of Science and Technology
2072

Bachelor Level/ First Year/ First Semester/ Science   Full Marks: 60
Computer Science and Information Technology (CSc. 111)   Pass Marks: 24
(C-programming)   Time: 3hours.

Candidates are required to give their answers in their own words as for 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