

Paper Code: ICT-101 (I Sem)

Subject: Programming for problem solving

Time: 1:30 hrs

Max Marks: 30

Note: All questions are compulsory.

Q1. Answer the following questions.

(2 × 5 = 10 Marks)

- What are preprocessor directives?
- What are the advantages of high level languages over machine language?
- Write a program using while loop to find sum of digits of a number entered by the user.
- What is output of `printf("%d");` ?
- What is the difference between the priority and associativity in the operators?

Q2.

- WAP to multiply two matrices and draw its flowchart. (6 Marks)
- WAP to print the following pattern. User should be able to enter the number of rows to generate given pattern (4 Marks)

```
*****
*   *
*   *
*   *
**
*
```

Q3.

- Predict output of following code

(2.5 × 2 = 5 Marks)

<pre>i. #include <stdio.h> int main() { int x=20, y=35; x= y++ + x++; y=++y + ++x; printf("%d %d \n", x, y); return 0; }</pre>	<pre>ii. #include <stdio.h> int main() { int x=2, y=5; y=2*y+x; y=2*x+y; printf("%d \n", x); return 0; }</pre>
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b) Find the error in following code and correct the error

(2.5 × 2 = 5 Marks)

i.

```
#include <stdio.h>;
int main()
{
int integer1, integer2, sum;           /*declaration*/
printf("enter first integer\n")      /*prompt for first input*/
scanf("%d", integer1);              /*read integer value into integer1*/
printf("Enter second integer\n");    /*prompt for second input*/
scanf("%d", &integer2);             /*read integer value into integer2*/
sum = int1 + int2;                   /*add inputs and assign to sum*/
printf("Sum is %d\n", sum);         /*print sum*/
return 0;                             /*normal termination of program
}
```

ii.

```
main( )
{
int size ;
scanf ( "%d", &size );
int arr[size] ;
for ( i = 1 ; i <= size ; i++ )
{
scanf ( "%d", arr[i] ) ;
printf ( "%d", arr[i] ) ;
}
}
```