Total No. of Questions – [3] Total No. of Printed Pages: IV

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F.Y. B. TECH. (SEMESTER - I)

COURSE NAME: Fundamentals of Programming

COURSE CODE: CS10202A

(PATTERN 2020)

Time: [2Hr] [Max. Marks: 60]

(*) Instructions to candidates:

1) **Figures to the right indicate full marks.**
2) **Use of scientific calculator is allowed**
3) **Use suitable data where ever required**
4) **Write correct syntax while writing program**

Question No.	Question Description	Marks	CO mapped	Blooms Taxonomy Level
Q.1	i) Which of the following is the part of system software? (A) Operating system (B) Utility software (C) Browser software (D) both a and b	[2]	CO1	A
	ii) Which one of the following statement is best suitable? (A) Low level language is hardware independent language (B) Assembly level language is hardware independent language (C) High level language is hardware dependent language (D) High level and scripting level languages are hardware independent language	[2]	CO1	A

	iii) What will be the output of following C code?
	`#include <stdio.h>`
	`int main()`
	`{`
	`int four=1;`
	`switch(four)`
	`{`
	`case 1: printf("One ");`
	`case 2: printf("Two ");`
	`case 3: printf("Three ");`
	`default: printf("Four "); break;`
	`}`
	`return 0;`
	`}`
	(A) One Two Three Four
	(B) Two Three Four
	(C) Three Four
	(D) Four
		[2]	CO1	A

	iv) What will be the output of following C code?
	`#include <stdio.h>`
	`int main()`
	`{`
	`int variable;`
	`switch(variable);`
	`{`
	`printf("Welcome to C Programming, ");`
	`}`
		[2]	CO1	A

```
            printf("Thank You.");
            }
```

(A) Compile time error
(B) Thank You.
(C) Welcome to C Programming,
(D) Welcome to C Programming, Thank You.

v) What will be the output of following C code? [2] CO1 A

```
#include "stdio.h"
int main()
{
    int a = 0;
    int b = 10;
    a=b++;
    printf("%d %d %d %d ",b++,a,b++,a++ );
    return 0;
}
```

(A) 10 11 11 11
(B) 11 11 11 12
(C) 12 11 11 10
(D) 12 11 11 13

vi) What will be the output of following C code? [2] CO1 A

```
#include<stdio.h>
int main()
{
    int x;
    for(x=20;x>=1;x--)
    {
        if(x==13)
        {continue;}
        printf("%d ",--x);
    }
        return 0;
}
```

(A) 19 17 15 13
(B) 19 17 15 13 11 9 7 5 3 1
(C) 19 17 15 13 11 9 7 5 1
(D) 19 17 15

vii) What will be the output of following C code? [2] CO1 A

```
#include <stdio.h>
int main()
{
    int a=20, b=30, c=40;
    b=a++;
    c=++a;
    printf("%d %d %d ",b++,a,++c);
    return 0;
}
```

(A) 20 22 23
(B) 20 22 22
(C) 30 22 41
(D) 31 22 41

viii) Which one of the following statement is best suitable? [2] CO1 A

(A) Machine level language are platform independent language
(B) High level language are platform independent language
(C) Scripting level language are platform independent language
(D) Assembly level languages are platform independent Language

ix) What will be the output of following C++ code? [2] CO2 A

```
#include <iostream>
using namespace std;
```

```
int main()
{
 int x = 4;
 if(x++ == 5)
cout<<"Five - "<<endl;
 else
 if(x++ == 6)
cout<<"Six - "<<endl;
cout<<"Welcome to C++ Programming";
 return 0;
}
```

(A) No Output
(B) Welcome to C++ Programming
(C) Five - Welcome to C++ Programming
(D) Six - Welcome to C++ Programming

x) What will be the output of following C++ code? [2] CO2 A

```
#include <iostream>
using namespace std;
int main()
{
 int p=10;
 p = ++p + p;
cout<<"value of p is : "<<p;
 int q=4 ;
 q = q++ + q;
cout<<", value of q is : "<<q<<endl;
 return 0;
}
```

(A) value of p is : 21, value of q is : 9
(B) value of p is : 22, value of q is : 9
(C) value of p is : 21, value of q is : 10
(D) value of p is : 21, value of q is : 9

xi) What is the correct syntax to access any variable of namespace? [2] CO2 A

(A) Namespace.a
(B) Namespace->
(C) namespace::a
(D) namespace:a

xii) What will be the output of following C++ code? [2] CO2 A

```
#include <iostream>
using namespace std;
int main()
{
   int friend = -20;
cout<<"friend is: "<<friend++;
   return 0;
}
```

(A) friend is: -10
(B) friend is: 11
(C) Compiler Error
(D) friend is: 09

xiii) In which direction assignment operation will take place? [2] CO2 A

(A) Left to right
(B) Right to left
(C) Both
(D) Undefined

xiv) What will be the output of following C++ code? [2] CO2 A

```
#include <iostream>
using namespace std;
int a=21;
int main()
{
```

	int a =21;
	cout<<++a<<::a++;
	}
	(A) 2221
	(B) 2222
	(C) 2122
	(D) 2121			

	xv) What will be the output of following C++ code?
	#include <iostream>
	int main()
	{
	for(int i=10; i< 15; i++);
	std::cout<<"Welcome to C++ programming";
	return 0;
	}
	(A) Welcome to C++ programming will print 10 times
	(B) Welcome to C++ programming will print 15 times
	(C) Welcome to C++ programming will print 5 times
	(D) Welcome to C++ programming will print once only
		[2]	CO2	A

Q2	**Solve any three out of four**			
	a) Identify the role of 'access specifier' in C++ programming using simple program with correct syntax and output. Enlist the category of access specifier.	[5]	CO3	A
	b) Compare between procedure oriented programming and object oriented programming.	[5]	CO3	A
	c) Write a C++ program with correct syntax and output and discuss memory allocation for object.	[5]	CO3	A
	d) Define destructor. Comment on destructor overloading. Enlist the properties of destructor.	[5]	CO3	A
Q.3	**Solve any three out of four**			
	a) Define inheritance. Enlist the category of inheritance. Write a C++ program with correct syntax and output for 'multiple inheritance'.	[5]	CO4	A
	b) Identify the role of 'inline function' in C++. Write a C++ program for 'inline function' using class with correct syntax and output.	[5]	CO4	A
	c) Recognize the role of virtual function in function overriding along with C++ program for virtual function with correct syntax and output.	[5]	CO4	A
	d) Write a C++ program with correct syntax and output to determine the role of friend function in C++.	[5]	CO4	A