

Total No. of Questions – [3]

Total No. of Printed Pages: 4

G.R. No.

PAPER CODE

U123-202A(R)

MAY 2023 (INSEM+ ENDSEM) EXAM

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

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	Select the correct option for following questions i) What will be the output of following C code? <pre>#include<stdio.h> int main() { int a = 10/3; printf("%d",a); return 0; }</pre> (A) 3 (B) 3.0 (C) 3.33 (D) 0 ii) What will be the output of following C code? <pre>#include<stdio.h> int main() { int x=21,y=10; int sum = x+y+2 + 4 / 2 + 6 * 2; printf("%d", sum); return 0; }</pre> (A) 47 (B) 16 (C) 46 (D) Compiled Time Error iii) What will be the output of following C code? <pre>#include <stdio.h> void solve() { int first = 10, second = 20; int third = first + second; { int third = second - first; printf("%d ", third); } printf("%d", third); } int main() { solve(); return 0; }</pre> (A) 10 30 (B) 30 10 (C) 10 20 (D) 20 10 iv) What will be the output of following C code? <pre>#include <stdio.h> int main() {</pre>	[2]	CO1	
		[2]	CO1	
		[2]	CO1	A
		[2]	CO1	

<pre> int i; for(i=0; i<5; ++i++) { printf("Welcome to VIIT"); } return 0; } </pre> (A) Hello is printed 5 times (B) Compilation Error (C) Hello is printed 2 times (D) Hello is printed 3 times v) What will be the output of following C Code? <pre> #include <stdio.h> void add() { int a = 10; int b = 20; int res = a++ + ++b + b++ + ++a + printf("%d", res); } int main() { add(); return 0; } </pre> (A) 86 (B) 85 (C) 84 (D) 83		[2]	CO1
vi) What will be the output of following C Code? <pre> #include<stdio.h> int main() { int _ = 10; int __ = 20; int ___ = _ + __; printf("_%d",___); return 0; } </pre> A. 20 B. 10 C. 30 D. Compiled Time Error		[2]	CO1
vii) What will be the output of following C Code? <pre> #include <stdio.h> int main() { int four=1; switch(four) { case 1: printf("One ");break; case 2: printf("Two "); case 3: printf("Three "); default: printf("Four "); break; } return 0; } </pre> (A) One (B) One Two Three Four (C) One Two Three (D) Compiled time Error		[2]	CO1
viii) Which of the following is the part of system software (A) Browser Software (B) Operating System (C) Utility Software (D) Both B and C		[2]	CO1
ix) What will be the output of following C++ Code? <pre> #include<iostream> using namespace std; int main() </pre>		[2]	CO2

```
{
int a=10;
a++ + ++a;
cout<<a+1;
return 0;
}
```

- (A) compile time error
(B) 11
(C) 12
(D) 13

x) What will be the output of following C++ code?

```
#include <iostream>
using namespace std;
int main()
{
int a=12, b=12, c=12;
b=a++;
c=++a;
cout<<a++<<++b<<b<<c;
return 0;
}
```

- (A) 13141314
(B) 14131314
(C) 13131414
(D) 14131413

xi) What will be the output of following C++ code?

```
#include<stdio.h>
int main()
{
int x;
for(x=10;x>=1;x--)
{
if(x==15)
{continue;}
printf("%d ",--x);
}
return 0;
}
```

- (A) 9 7 5 3 1
(B) 7 5 3 1
(C) 1 3 5 7 9
(D) Compiled Time Error

xii) Which of these type is provided by C++ but not by C?

- (A) int
(B) bool
(C) char
(D) float

xiii) C++ language was developed by___?

- (A) Dennis Rechar
(B) Dennis M. Ritchie
(C) BjarneStroustrup
(D) Anders Hejlsberg

xiv) What will be the output of following C++ code?

```
#include<iostream>
using namespace std;
void Execute(int&x, int y = 200)
{
int TEMP = x + y;
x+= TEMP;
if(y!=200)
cout<<TEMP<<x<<y<<"--";
}
int main()
{
int A=50, B=20;
cout<<A<<B<<"--";
Execute(A,B);
cout<<A<<B<<"--";
return 0;
}
```

[2]

C02

[2]

C02

[2]

C02

[2]

C02

[2]

C02

	(A) 5020--5020— (B) 5020--7012020--12020-- (C) 5020--70120200—5020 (D) 5020--7050200--5020-- xv) What will happen after the Execution of the C++ Code? <pre>#include <iostream> using namespace std; int main() { int a = 100, b=200; int *p=&a, *q=&b; p=q; return 0; }</pre> (A) b is Assigned to a (B) p now point to b (C) a is Assigned to b (D) q now point to a	[2]	CO2	
Q.2	Solve any three out of four a) What is OOP and explain the Feature of OOP with Examples? b) Define Constructor? Enlist types of Constructor and explain parameterized constructor in C++ with Suitable examples? c) Write a C++ program with correct syntax and output and discuss memory allocation for object? d) Explain Three Access specifier in OOP? Write a Separate Examples for 3 access Specifier	[5] [5] [5] [5]	CO3 CO3 CO3 CO3	U R A A
3	Solve any three out of four a) Identify the role of 'mode of inheritance' in C++ programming. Write a program for 'protected' mode of inheritance with correct syntax and output b) Define polymorphism? Enlist the categories of polymorphism. Write a C++ program for function overloading with correct syntax and output? c) Define Inheritance and list the types of Inheritance? Write a C++ Program with correct Syntax and output for single Inheritance? d) Identify the role of 'static data members' in C++. Write a C++ program for static data member with correct syntax and output?	[5] [5] [5] [5]	CO4 CO4 CO4 CO4	U A U A