

Total No. of Questions – [3]

Total No. of Printed Pages: 4

G.R. No.

PAPER CODE

U123-202A(REG)

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) Compiler is _____? (A) system program that converts instructions to machine language (B) system program that converts machine language to high-level language (C) system program that writes instructions to perform (D) None of the mentioned ii) What will be the output of following C code? <pre>#include<stdio.h> int main() { int x = 10; int y = 70; x = x + y; y = x - y; x = x - y; printf("X : %d\n", x); printf("Y : %d\n", y); return 0; }</pre> (A) 10 70 (B) 70 10 (C) 10 10 (D) Compiled Time Error iii) What will be the output of following C code? <pre>#include <stdio.h> int main() { int a[] = {1, 2, 3, 4}; int sum = 0; for(int i = 0; i < 4; i++) { sum += a[i]; } printf("%d", sum); return 0; }</pre> (A) 4 (B) 1 (C) 20 (D) 10 iv) What will be the output of following C code? <pre>#include <stdio.h> int main() { int a = 5;</pre>	[2]	CO1	
		[2]	CO1	
		[2]	CO1	A
		[2]	CO1	
		[2]	CO1	

	<pre> int b = 5; int sum = -(-a-b); printf("%d",sum); return 0; } </pre> (A) 5 (B) 0 (C) 10 (D) 11 v) What will be the output of following C code? <pre> #include <stdio.h> void add() { int a = 3; int res = a++ + ++a + a++ + ++a + a++; printf("%d", res); } int main() { add(); return 0; } </pre> (A) 12 (B) 24 (C) 20 (D) 27 vi) If p is an integer pointer with a value 1000, then what will the value of p + 5 are? A. 1020 B. 1005 C. 1004 D. 1010 vii) What will be the output of following C code? <pre> #include<stdio.h> int main() { int m=20; int n,n1,n2; n=++m; n1= m++; n++; n1++; n=n+n1; printf("%d", n); return 0; } </pre> (A) 44 (B) 20 (C) 42 (D) 40 viii) How to declare a double-pointer in C? (A) int *ptr (B) int **ptr (C) int&ptr (D) int&&ptr ix) What will be the output of following C++ code? <pre> #include<iostream> using namespace std; int main() { const int a=10; a++ + ++a; cout<<a; return 0; } </pre>	[2]	CO1	
		[2]	CO1	
		[2]	CO1	
		[2]	CO1	
		[2]	CO2	

	(A) compile time error (B) 10 (C) 12 (D) 9 x) What will be the output of following C++ code? <pre> #include <stdio.h> #include<iostream> using namespace std; int main () { int array[] = {0, 2, 4, 6, 7, 5, 3}; int n, result = 0; for (n = 0; n < 8; n++) { if(n==5) break; result += array[n]; } cout << result; return 0; } </pre> (A) 21 (B) 25 (C) 19 (D) 20 xi) What will be the output of following C++ code? <pre> #include<iostream> using namespace std; int main() { int i=0; lbl: cout<<"Welcome to VIIT"<<endl; i++; if(i<5) { goto lbl; } return 0; } </pre> (A) 5 Time Welcome to VIIT (B) 4 Time Welcome to VIIT (C) 6 Time Welcome to VIIT (D) Compiled Time Error xii) What will be the output of following C++ code? <pre> #include <iostream> using namespace std; int fun(int x, int y){ int z; x = 20; y = 10; return x+y; } int main() { int x = 10; fun (x, x); cout << x; return 0; } </pre> (A) Compiled Time Error (B) 11 (C) 10 (D) 20	[2] [2] [2] [2]	CO2 CO2 CO2 CO2	
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	xiii) Identify the scope resolution operator? (A) : (B) :: (C) ? (D) None xiv) What will be the output of following C++ code? <pre>#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; }</pre> (A) 5020--5020-- (B) 5020--7012020--12020-- (C) 5020--70120200--5020 (D) 5020--7050200--5020-- xv) What will be the output of following C++ code? <pre>#include <iostream> using namespace std; int main() { int a = 10; cout<<a++ + --a; return 0; }</pre> (A) 10 (B) 20 (C) 12 (D) Not Defined	[2]	CO2	
		[2]	CO2	
Q.2	Solve any three out of four a) Compare between procedure oriented programming and object oriented programming? b) Explain Constructor and any two types of Constructor in C++ with Suitable examples? c) Write a C++ program for creating an array of an object with correct syntax and output. d) Define the class and object? Write examples for access Data Member and member function using object?	[5] [5] [5] [5]	CO3 CO3 CO3 CO3	A U A R
Q.3	Solve any three out of four a) What is Inheritance? Explain any 2 types of Inheritances with Examples b) Enlist the categories of compile time polymorphism. Write a C++ program for function overloading with correct syntax and output? c) Write a C++ program with correct syntax and output to demonstrate the role of "friend function can become friend to more than one function"? d) Distinguish between C language and C++ language?	[5] [5] [5] [5]	CO4 CO4 CO4 CO4	U A A A