

Total No. of Questions – [3]

Total No. of Printed Pages: 04

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PAPER CODE	V111-202A (Bachelary)
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DECEMBER 2021 (INSEM+ ENDSEM) EXAM
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

Q.1 Select the correct option for following questions.

[30]

i) What will be the output of following C code?

[2]

```
#include <stdio.h>
int main()
{
    char ch;
    int i;
    ch='F';
    i=ch-'A';
    printf("%d",i);
}
```

- (A) 6
- (B) 5
- (C) 7
- (D) 8

ii) What will be the output of following C code?

[2]

```
#include <stdio.h>
int main()
{
    char code='K';
    switch(code)
    { case 'A': printf("ANT ");
      case 'K': printf("KING ");
      default: printf("NOKING "); break;
    }
    printf("PALACE");
}
```

- (A) KING PALACE
- (B) KING NOKING
- (C) KING NOKING PALACE
- (D) Compiler time error for using break statement with default

iii) If c is a variable initialized to 1, how many times will the following loop be executed?

[2]

```
#include "stdio.h"
int main()
{
    while ((c > 0) && (c < 60))
```

```

{
    loop body
    c++;
}return 0;}

```

- (A) 60
- (B) 59
- (C) 61
- (D) 0

iv) **Select the correct for loop syntax.**

- (A) for(initialization; condition; increment operation;){//statements}
- (B) for(declaration; condition; increment operation) //{statements}
- (C) for(declaration; increment operation; condition) //{statements}
- (D) for(initialization; condition; increment operation) //{statements}

[2]

v) **What will be the output of following C code?**

```

#include<stdio.h>
int main()
{
    int a[5] = {1,2,3,4,5};
    printf("%d", a[3]++);
}

```

[2]

- (A) 4
- (B) 5
- (C) 6
- (D) Compile time error

vi) **Which one of the following statement is best suitable?**

- (A) Machine Level Language is Hardware independent Language
- (B) Machine Level and Assembly Languages are Hardware Independent Language
- (C) Assembly Languages are platform independent
- (D) Machine Level and Assembly Languages are Hardware Dependent Language

[2]

vii) **What will be the output of following C code?**

```

#include <iostream>
using namespace std;
int main()
{
    int a = 99;
    cout<<a++;
    return 0;
}

```

[2]

- (A) 100
- (B) 99
- (C) 101
- (D) 102

viii) **Select the statements that are syntactically correct**

- (A) /* Is /* this a valid */ comment *
- (B) for (; ;) ;
- (C) return;
- (D) both (B) & (C)

[2]

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

```

#include <iostream>
using namespace std;
int main()
{

```

[2]

```

int m=6;
m= --m + m--;
cout<<"value of m is : "<< m;
int n=3 ;
n = ++n + n++;
cout<<" , value of n is : "<< n<<endl;
return 0;
}

```

- (A) value of m is : 10, value of n is : 8
- (B) value of m is : 10, value of n is : 10
- (C) value of m is : 9, value of n is : 9
- (D) value of m is : 8, value of n is : 9

x) How many times C++ program will be printed here?

```

#include<iostream>
using namespace std;
int main()
{
for(int i=0; i< 10; i++);
cout<<"C++ program";
return 0;
}

```

[2]

- (A) 10
- (B) 1
- (C) 0
- (D) 9

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

```

#include <iostream>
using namespace std;
int a=22;
int main()
{
int a =45;
cout<<a<<::a;
}

```

[2]

- (A) syntax error
- (B) 2222
- (C) 4522
- (D) 2245

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

```

#include <iostream>
using namespace std;
void find()
void find()
{
cout<<"course ";
}
int main()
{
find();
return 0;
}

```

[2]

- (A) course
- (B) course course
- (C) compilation error
- (D) infinite time printing of course

xiii) Which part of 'for' loop is executed only once?

- (A) initializer
- (B) condition
- (C) modifier
- (D) program statements

[2]

xiv) What does pointer variable stores in C++ programming?

- (A) value of another value
- (B) value of another variable
- (C) address of another value
- (D) address of another variable

[2]

xv) What is the output of following code

```
#include <iostream>
using namespace std;
int main()
{
    int a = 0;
    cout<<a++<<"\t"<<++a;
    return 0;
}
```

[2]

- (A) 0 0
- (B) 0 1
- (C) 1 1
- (D) 0 2

Q.2

Solve any three out of four

[15]

a) Compare Procedural Oriented Programming and Object Oriented Programming.

[5]

b) Define access specifier used in class. Enlist different access specifiers used in class and explain each one with example.

[5]

c) Write a C++ program to simulate calculator using class and object.

[5]

d) Explain Constructor and Destructor with suitable example.

[5]

Q.3

Solve any three out of four

[15]

a) Define polymorphism in OOP. Enlist the types of polymorphism. Explain function overloading with suitable example.

[5]

b) Define friend function and inline function? Explain in detail with syntax of friend and inline function.

[5]

c) Define inheritance used in OOP. Enlist the types of inheritance. Explain function overriding.

[5]

d) Write a C++ program to overload decrement operator (--) with correct syntax and output.

[5]