



केन्द्रीय जनजातीय विश्वविद्यालय आन्ध्रप्रदेश  
**Central Tribal University of Andhra Pradesh**

(A Central University Established by an act of Parliament)

II midterm Examinations

SEMESTER – III

Subject: Object oriented Programming using C++

Subject Code : BAI2021

Program of Study: B.Sc.(A.I.) 2<sup>ND</sup> Year 1<sup>st</sup> Semester

Part-A

Answer all the questions. Each Carries 1 mark.

1 M x5=5

1. What is the output of the following program?

```
#include <iostream>
#include <string>
using namespace std;
class A
{
    int a, b;
    float d;
public:
    void change(int i){
        a = i;
    }
    void value_of_a(){
        cout<<a;
    }
};
class B: private A
{
};
int main(int argc, char const *argv[])
{
    B b;
    cout<<sizeof(B);
    return 0;
}
```

2. Ambiguity Resolution in Inheritance?

3. Observer and identify the error in the given C++ program:

```
#include <iostream>
using namespace std;
double division(int a, int b) {
    if( b == 0) {
```



```

        throw "Division by zero condition!";
    }
    return (a/b);
}
int main () {
    int x = 50;
    int y = 0;
    double z = 0;
    try {
        z = division(x, y);
        cout << z << endl;
    } catch (const char* msg) {
        cerr << msg << endl;
    }
}

```

4. Name some throw built-in exception types?
5. What is diamond problem in C++?

### Part-B

Answer either A or B short answer question. Question carries 5 marks 5 M x1=5

6 A). How to perform Error handling during file operations in C++?

(OR)

B). Explain in detail about the C++ Standard Exceptions and its hierarchy?

### Part-C

Answer either A or B long answer question. Question carries 10 marks 10 M x1=10

7 A) Briefly demonstrate about the various types of Inheritance in C++ with suitable example for each ?

(OR)

B). Write the following programs in C++ ?

- i) Program to Access the Private Members of the Base Class in Derived Class
- ii) A program on how to define C++ User-Defined Exceptions in C++?