ASSIGNMENT 11 OOPS

IN THIS ASSIGNMENT YOU WILL FIND QUESTIONS RELATED TO OOPS

* Required

1. **Email address** *

_____

2. **CERTIFICATION BATCH NO** *
Mark only one oval.

- ◯ 1
- ◯ 2
- ◯ 3
- ◯ 4
- ◯ 5
- ◯ OTHER

3. **1. _____ represents an entity in the real world with its identity and behaviour** *
Mark only one oval.

- ◯ A method
- ◯ An object
- ◯ A class
- ◯ An operator

4. **2. _____ is used to create an object.** *
Mark only one oval.

- ◯ class
- ◯ constructor
- ◯ User-defined functions
- ◯ In-built functions

5. **3. What will be the output of the following Python code?** *

```
class test:
    def __init__(self,a="Hello World"):
        self.a=a

    def display(self):
        print(self.a)
obj=test()
obj.display()
```

Mark only one oval.

- The program has an error because constructor can't have default arguments
- Nothing is displayed
- "Hello World" is displayed
- The program has an error display function doesn't have parameters

6. **4. What is setattr() used for?** *

Mark only one oval.

- To access the attribute of the object
- To set an attribute
- To check if an attribute exists or not
- To delete an attribute

7. **5. What will be the output of the following Python code?**

```
class change:
    def __init__(self, x, y, z):
        self.a = x + y + z

x = change(1,2,3)
y = getattr(x, 'a')
setattr(x, 'a', y+1)
print(x.a)
```

Mark only one oval.

- 6
- 7
- ERROR
- 0

8. **6. Which of the following best describes inheritance?**

Mark only one oval.

- Ability of a class to derive members of another class as a part of its own definition
- Means of bundling instance variables and methods in order to restrict access to certain class members
- Focuses on variables and passing of variables to functions
- Allows for implementation of elegant software that is well designed and easily modified

9. **7.Which of the following statements is wrong about inheritance?**
Mark only one oval.

- Protected members of a class can be inherited
- The inheriting class is called a subclass
- Private members of a class can be inherited and accessed
- Inheritance is one of the features of OOP

10. **8.What is the output of the following piece of code?** *

```
class Test:
    def __init__(self):
        self.x = 0
class Derived_Test(Test):
    def __init__(self):
        self.y = 1
def main():
    b = Derived_Test()
    print(b.x,b.y)
main()
```

Mark only one oval.

- 0 1
- 0 0
- Error because class B inherits A but variable x isn't inherited
- Error because when object is created, argument must be passed like Derived_Test(1)

11. **9. What is the output of the following piece of code?**

```
class A():
    def disp(self):
        print("A disp()")
class B(A):
    pass
obj = B()
obj.disp()
```

Mark only one oval.

- Invalid syntax for inheritance
- Error because when object is created, argument must be passed
- Nothing is printed
- A disp()

12. **10. All subclasses are a subtype in object-oriented programming. Is the statement true or false?**

Mark only one oval.

- ◯ True
- ◯ False
- ◯ BOTH
- ◯ NONE OF THE ABOVE

13. **11. Which of the following best describes polymorphism?**

Mark only one oval.

- ◯ Ability of a class to derive members of another class as a part of its own definition
- ◯ Means of bundling instance variables and methods in order to restrict access to certain class members
- ◯ Focuses on variables and passing of variables to functions
- ◯ Allows for objects of different types and behaviour to be treated as the same general type

14. **12.What is the biggest reason for the use of polymorphism?**

Mark only one oval.

- ◯ It allows the programmer to think at a more abstract level
- ◯ There is less program code to write
- ◯ The program will have a more elegant design and will be easier to maintain and update
- ◯ Program code takes up less space

15. **13. What is the use of duck typing?**

Mark only one oval.

- ◯ More restriction on the type values that can be passed to a given method
- ◯ No restriction on the type values that can be passed to a given method
- ◯ Less restriction on the type values that can be passed to a given method
- ◯ Makes the program code smaller

16. **14. What will be the output of the following Python code?**

```
class A:
    def __str__(self):
        return '1'
class B(A):
    def __init__(self):
        super().__init__()
class C(B):
    def __init__(self):
        super().__init__()
def main():
    obj1 = B()
    obj2 = A()
    obj3 = C()
    print(obj1, obj2,obj3)
main()
```

Mark only one oval.

- 1 1 1
- 1 2 3
- '1' '1' '1'
- An exception is thrown

17. **15. What will be the output of the following Python code?**

```
class Demo:
    def __init__(self):
        self.x = 1
    def change(self):
        self.x = 10
class Demo_derived(Demo):
    def change(self):
        self.x=self.x+1
        return self.x
def main():
    obj = Demo_derived()
    print(obj.change())

main()
```

Mark only one oval.

- 11
- 2
- 1
- An exception is thrown

18. **16.Which of these is not a fundamental features of OOP?**

Mark only one oval.

- ◯ Encapsulation
- ◯ Inheritance
- ◯ Instantiation
- ◯ Polymorphism

19. **17. Which of the following is the most suitable definition for encapsulation?**

Mark only one oval.

- ◯ Ability of a class to derive members of another class as a part of its own definition
- ◯ Means of bundling instance variables and methods in order to restrict access to certain class members
- ◯ Focuses on variables and passing of variables to functions
- ◯ Allows for implementation of elegant software that is well designed and easily modified

20. **18.What will be the output of the following Python code?**

```
class Demo:
    def __init__(self):
        self.a = 1
        self.__b = 1

    def display(self):
        return self.__b
obj = Demo()
print(obj.a)
```

Mark only one oval.

- ◯ The program has an error because there isn't any function to return self.a
- ◯ The program has an error because b is private and display(self) is returning a private member
- ◯ The program runs fine and 1 is printed
- ◯ The program has an error as you can't name a class member using __b

21. **19. What will be the output of the following Python code?**

```
class Demo:
    def __init__(self):
        self.a = 1
        self.__b = 1

    def display(self):
        return self.__b

obj = Demo()
print(obj.__b)
```

Mark only one oval.

- The program has an error because there isn't any function to return self.a
- The program has an error because b is private and display(self) is returning a private member
- The program has an error because b is private and hence can't be printed
- The program runs fine and 1 is printed

22. **20. Methods of a class that provide access to private members of the class are called as _____ and _____**

Mark only one oval.

- getters/setters
- __repr__/__str__
- c) user-defined functions/in-built functions
- __init__/__del__