

Total No. of printed pages = 4

MCA 202103

Roll No. of candidate

--	--	--	--	--	--	--	--	--	--

DINA CHOWDHURY
(GIMT & Gima)
Azara, Hatkhowapara,
Guwahati -781017

24/3/2021

M.C.A. 1st Semester End-Term Examination

PROGRAMMING TECHNIQUES USING PYTHON AND JAVA

(New Regulation & New Syllabus)

Full Marks – 70

Time – Three hours

The figures in the margin indicate full marks
for the questions.

Answer question No. 1 and any *four* from the rest.

1. Answer the following questions : (10 × 1 = 10)
- (i) Is Python case sensitive when dealing with identifiers?
- (a) Yes (b) No
- (c) Machine dependent (d) None of the mentioned
- (ii) Which of the following is not a keyword?
- (a) eval (b) assert
- (c) non local (d) pass
- (iii) Which of the following cannot be a variable?
- (a) `_init_` (b) in
- (c) It (d) on
- (iv) Arrays in Java are implemented as?
- (a) class (b) object
- (c) variable (d) none of the mentioned
- (v) Which of these packages contains all the event handling interfaces?
- (a) `java.lang` (b) `java.awt`
- (c) `java.awt.event` (d) `java.event`

[Turn over

- (vi) Which of these interfaces define a method actionPerformed()?
- (a) ComponentListener (b) ContainerListener
(c) ActionListener (d) InputListener
- (vii) Which of these packages contains abstract keyword?
- (a) java.lang (b) java.util
(c) java.io (d) java.system
- (viii) Which of these keywords is used to define packages in Java?
- (a) pkg (b) Pkg
(c) package (d) Package
- (ix) What type of variable can be defined in an interface?
- (a) public static (b) private final
(c) public final (d) static final
- (x) What will be the output of the following Java code?

```
class A
{
    public int i;
    private int j;
}
class B extends A
{
    void display ()
    {
        super.j = super.i + 1;
        System.out.println(super.i + " " + super.j);
    }
}
class inheritance
{
    public static void main(String args[ ])
    {
        B obj = new B ();
        obj.i=1;
        obj.j=2;
        obj.display();
    }
}
```

BINA CHOWDHURY CENTRAL LIBRARY
(GIMT & GIPS)
Azara, Hatkhowapara,
Guwahati -781017

- (a) 2 2
(b) 3 3
(c) Runtime Error
(d) Compilation Error

2. Answer the following questions

- (a) List the feature of a Python Programming Language. (4)
- (b) What is built-in function in Python? Explain the function of the following built-in function : (1+ (2 × 3)=7)
- (i) bin () function
- (ii) eval () function
- (iii) getattr () Function
- (c) What is the difference between Python List and Tuple. Explain with an example. (4)

BINA CHOWDHURY-CENTRAL LIBRARY
(GINT & GIPS)
Azara, Hatkhowapara,
Guwahati -781017

3. Answer the following questions :

- (a) Explain constructor in terms of Python Programming language. Explain its type with suitable example. (1+5)
- (b) What is a Lambda Functions in Python? What is its use? Explain briefly. (4)
- (c) Explain multiple inheritance with a suitable Python Program. (5)

4. Answer the following questions :

- (a) List the difference between Procedure Oriented Programming and Object Oriented Programming Language (5)
- (b) What is the difference between super and super() ? (3)
- (c) Explain the statement-"Java is Platform Oriented" . (2)
- (d) What is a package? What is the difference between user-defined package and java package? How can we use a user-defined package in a java program? Explain. (5)

5. Answer the following questions :

- (a) Give a comparison between abstract class and concrete (ordinary) class. (5)
- (b) What is the default package name in Java? Explain the difference between "import java.io. *" and "import java.io.DataInputStream". (2)
- (c) What is the default package name in Java? Explain each part of the below line
- System.out.println("Hello"); (3)
- (d) What is an interface in Java? Explain the use of interface in a suitable Java Program. (5)

6. Answer the following questions :

- (a) What is Polymorphism? How it is achieved in Object-Oriented approach of Programming? (2+2)
- (b) Explain method overriding with a suitable Java Program. (5)
- (c) What is an array? How can declare and create an array? (2)
- (d) What are the different types of variable used in Java? Explain with a suitable Java Program. (4)

7. Answer the following questions :

- (a) What are the rules for abstract class? (4)
- (b) Compare and Contrast Overloading and Overriding methods. (3)
- (c) What is a copy constructor? Explain with a suitable program. (4)
- (d) What are access-specifiers? What are the different types of access-specifiers used in Java. Explain their use with a suitable Java Program. (4)

BINA CHOWDHURY CENTRAL LIBRARY
(GINT & GIPS)
Azara, Hatkhowapara,
Guwahati -781017

