VIDYA JYOTHI INSTITUTE OF TECHNOLOGY

Department of CSE

II B.Tech, I Semester

Python Programming – Question Bank

UNIT – I

Short Answer Questions

1. List the of the features of Python Programming Language.
2. What are the supported data types in Python?
3. Explain standard I/O operations in Python.
4. What are Lists and Tuples in Python?
5. What is the difference between Tuples and Lists in Python?
6. What are dictionaries in Python?
7. List the operators in Python?
8. What are Python Membership and Identity Operators?
9. Define if…else statements in python.
10. Write the syntax for if…elif…else conditionals.
11. What are the different iterative statements?
12. What is range() function? Give its syntax.
13. Write the syntax of for and while loop statements.
14. What are python break and continue statements?
15. What is the scope of a variable?
16. What is a doc string in Python?
17. Define functions in python.
18. Define modules and packages in Python.
19. Explain the procedure to create a package.
20. What are the function arguments used in Python?

Long Answer Questions

1. Explain various types of operators used in Python.
2. Explain in detail about Control flow structures.
3. Discuss function arguments in Python.
4. How do you create a package & import it? Explain it with an example program.
5. What is a recursive function ? Explain with an example program.

UNIT –II

Short Answer Questions

1. Define a String.
2. What is a sequence?
3. List the sequences in python.
4. How do you capitalizes first letter of a string?
5. What is String formatting operator? List the various format symbols in Python.
6. How will you replace all occurrences of a substring in a string with new string?
7. What is the difference between del() and remove() methods of list?
8. What is stride in slicing strings?
9. What are the return values of ord() and chr() functions?
10. List the functions of List and Dictionary data types.
11. List the functions of tuple data type.
12. When a dictionary is used instead of a list?
13. Differentiate between append() and extend() methods?
14. How to merge two dictionaries in Python?
15. Define mutable and immutable data types.
16. List String built-in functions supported in Python.
17. What is a Regular Expression?
18. What is a match() function?
19. Define search() function in regular expressions.
20. What is re module in Python?

Long Answer Questions

1. Explain string built-in methods in detail.
2. Distinguish match() and search() functions in regular expressions.
3. What is a Regular Expression? Explain various regular expression functions in python.
4. Explain Dictionary Operations & Methods in Python.
5. Explain List sequence and methods of List sequence in detail.

UNIT –III

Short Answer Questions

1. List Object Oriented Programming features.
2. Write the advantages of Object Oriented Programming
3. Define class.
4. Define object.
5. Differentiate class variables and object variables with an example program.
6. What is 'self' argument?
7. Give the syntax for defining a class.
8. Give the syntax for creating an object.
9. What is Data abstraction?
10. What is polymorphism?
11. Define a Constructor (__init__())
12. Explain about__del__()
13. Write the difference between public and private members in python
14. List the built-in functions for class attributes
15. List the built-in class attributes
16. What is Garbage Collection in Python
17. Define class methods with syntax.
18. Define static methods with syntax.
19. Write the differences between class methods and static methods?
20. Write the differences between class methods and instance/normal methods?

Long Answer Questions

1. Explain the features of Object Oriented Programming?
2. What is a self argument? Explain in detail with an example.
3. Write a Python program that reads student details: rollno,name and marks in six subjects and computes average marks. Use classes and objects.
4. Explain the Built-in Functions for Class Attributes with example program
5. Explain about public and private members with an example program?

UNIT –IV

Short Answer Questions

1. Define Inheritance?
2. Write the advantages of inheritance.
3. List the types of Inheritances.
4. Define Multiple Inheritance.
5. Define Multilevel Inheritance.
6. Define Hierarchical Inheritance.
7. Define Hybrid or Multipath Inheritance.
8. What is Composition or Containership in OOP?
9. Write the differences between Inheritance and Containership.
10. What is Method Overriding?
11. What is an abstract class?
12. Write brief notes on Meta class.
13. What is Operator Overloading?
14. List the Magic Methods for binary operators.
15. List the Magic Methods for Comparison operators.
16. Define Polymorphism
17. Differentiate static polymorphism and Dynamic Polymorphism?
18. Write the syntax to inherit a class?
19. Write a python program to Implement single inheritance.
20. Write the differences between class and abstract class.

Long Answer Questions

1. What is inheritance? Explain different types of inheritances.
2. Explain Method Overriding with an example program.
3. Define Operator Overloading. Write a Python Program to overload equal operator and less than operator.
4. Explain an abstract class with an example program.
5. Write a Python Program to illustrate Multiple Inheritance.

UNIT –V

Short Answer Questions

1. What is a File?
2. List and define different types of files.
3. Write the Syntax of a method to open a file.
4. List and describe the file opening modes.
5. List and describe file object attributes.
6. List and explain the methods that are used to read data from a file.
7. List and explain the methods that are used to write data to a file.
8. Write the syntax to open a file using **with** keyword
9. List and describe the methods related to File Positions.
10. How to rename and delete files in Python?
11. What is an Exception?
12. Differentiate exception and error.
13. Write the syntax to handle the exceptions.
14. Describe else clause in Exception Handling.
15. Describe finally block.
16. How to Handle Multiple Exceptions in a Single except block?
17. List The Built-in Exceptions.
18. Describe about raise keyword used in Exception Handling.
19. List and describe the directory methods.
20. Explain about the try and except blocks with syntax.

Long Answer Questions

1. List and describe the methods related to files.
2. Write a Python Program to write to and read from a file.
3. Write a Python Program to list the files of a Directory.
4. What is an Exception? Explain Handling Exceptions in python.
5. Explain Handling multiple Exceptions with example program.