Unit I

SHORT MARKS QUESTIONS

1. Difference between programming languages (low level, assembly language, high level) in Computer.
2. write the difference between application software and system software
3. Explain bit and byte?
4. Give the history of computer.
5. List & explain the types of computer.

LONG MARKS QUESTIONS

1. What is an algorithm, how to develop an algorithm (pseudo code and flowchart) and explain its characteristics.
2. Write an algorithm to check whether the given number is prime or not.
3. explain generations of languages(1st gen,2nd gen,3 gen,4th gen)
4. What is flow chart? Give the symbols used for raptor flowchart.
5. List out different conditional and looping symbols in raptor flow chart with example?
6. Discuss the procedure and sub charts in raptor flowchart with example?
7. Draw neat labeled block diagram of computer system& Explain.
8. What is software? Explain System and Application software. Enlist System and Application software.
9. Obtain a raptor flowchart to find Palindrome or not.
10. All raptor flow chart problems at the end of unit-1 (6-7 questions)
11. What is Operating System? Enlist the functions of Operating System
12. What is Operating System? What is the need of Operating System?

Unit –II

SHORT MARKS QUESTIONS

6. Explain about Python's most common applications
7. Explain briefly about variables and assignment in Python
8. Explain briefly the following concepts of Python.
   i) Reserved words or Key words ii) Indentation
9. Explain about the input function of Python with suitable examples
10. Explain about the output function of Python with suitable examples.
11. Explain about the integer and Boolean data types in Python with suitable examples
12. Explain about arithmetic operators in Python with suitable examples
13. Explain about comparison or relational operators in Python with suitable examples
14. Explain about assignment operator in Python with suitable examples
15. Explain about logical operators in Python with suitable examples
16. Explain about bitwise operators in Python with suitable examples
17. Write logical and bitwise operators in detail?
18. Explain about membership and identity operators in Python with suitable examples
19. Explain about expressions, statements and order of evaluation of Python with suitable examples

20. Explain about if, and if-elif-else statements of Python with suitable examples
21. Explain about while statement of Python with suitable examples
22. What are iterators in Python?
23. Write a for loop that prints numbers from 0 to 57, using range function.
24. What is the difference between compiled and interpreted languages?
25. Why is * called string repetition operator?
26. What are membership operators? Give examples for usage
27. Can a Python function return multiple values? If yes, how it works?

LONG MARKS QUESTIONS

1. Write a Python program that prints multiplication table of a given number
2. Write a short note on Python strings?
3. Write a small script to illustrate output formatting?
4. Write a script describing all assignment operators in Python?
5. Give short note on the following?
    i) Python statement
    ii) Multiline statement
    iii) Python Indentation
    iv) Python comment
6. Write in detail about the data types in Python?
7. Write a Python script to check the given string is Palindrome or not?
8. List some of useful math methods/functions?
9. What are the different loop control statements available in Python? Explain with suitable examples.
10. Python variables do not have specific types. Justify this statement with the help of an example
11. Write a Python program to find the given year is leap year or not
12. Write a Python program to convert height in feet and inches to cm. [1 feet = 12 inch and 1 inch= 2.54 cm] (Sample input: 2 feet 7 inch Sample output: 78.74 cm)
13. Write a Python program to print all prime numbers less than 256
14. Explain about iteration statements with examples

Unit –III

SHORT MARKS QUESTIONS

1. Explain how to define and call a function in Python programming with suitable examples
2. Explain how to pass arguments to a function in Python program with suitable examples
3. Explain about key word arguments concept in Python with suitable examples
4. What are lambda functions in Python?
5. How to Write Text with Python Turtle?

LONG MARKS QUESTIONS

1. Write a Python script to find the square root of a number without using built-in functions?

2. List different operators in Python, in the order of their precedence
3. What is lambda function? What are the characteristics of a lambda function? Give an example.
4. Explain about Radiobutton widget in tkinter. How to create two radiobutton sets (one for gender and another for Indian or not) on the same canvas
5. Give examples of commonly used widgets
6. Discuss the basic Tuple operations with examples.
7. Write a Python function that prints all factors of a given number.
8. Describe anonymous functions examples

Unit- IV

SHORT MARKS QUESTIONS

1. Give a short note on indexing and slicing?
2. What is the use of all(), any(), cmp() and sorted() in dictionary?
3. What is a dictionary in Python?
4. Describe has_key( ) method with example
5. What is time tuple ?
6. What is a set? Why sets?

LONG MARKS QUESTIONS

1. Explain about Lists and the various operations on Lists with suitable examples
2. Explain about tuples and the various operations on tuples with suitable examples
3. Explain about sets and the various operations on sets with suitable examples
4. Explain about Dictionaries and the various operations on it with suitable examples
5. Explain about comprehensions and sequences with suitable examples
6. What is a list in Python? How to create nested lists? Demonstrate how to create and print a 3-dimensional matrix with lists
7. Differentiate between lists and tuples in Python?
8. Write a short note on Python sets?
9. Write a Python program that prints the intersection of two lists. (without using list comprehension/sets)
10. Explain the List Accessing Methods and List Comprehension.
11. What is a tuple? How literals of type tuple are written?
12. Explain the Python Dictionary Comprehension with examples.
13. Explain the List Slicing and List Mutability.
14. Give a comparison between lists, tuples, dictionaries and sets
15. Discuss the file operation with example program
16. What are built-in dictionary functions? Explain.
17. Explain about built-in functions of tuple
18. Discuss about list and dictionary comprehensions.
19. Explain about the importance of lists in Python

Unit –V

SHORT MARKS QUESTIONS

1. Explain about classes , self-variables and methods in Python with suitable examples
2. How to declare a constructor method in python? Explain.
3. Explain about constructors in Python with suitable examples
4. Explain about inheritance concept in Python with suitable examples
5. Explain about method overriding in Python with suitable examples
6. Write Data Encapsulation in Python?
7. Differentiate between an error and exception of Python programming with suitable example
8. Explain about the exception handling mechanism in Python with suitable examples
9. Explain about try except block of Python programming with suitable examples
10. Explain about raising and user defined exceptions in Python with suitable examples
11. How to handle multiple exceptions with single except clause?
12. How to make a Python class member variable hidden from outside the class?
13. Explain about self variable with example.
14. Explain user defined exceptions with examples
15. Write a python program to describe different ways of deleting an element from the given List
16. What are the different operations that can be performed on a list? Explain with examples.

LONG MARKS QUESTIONS

1. Give an overview of OOP terminology or OOP principles .
2. Describe the Use of Inheritance in Python?
3. Write a script illustrating multiple inheritance?
4. Elaborate user defined exceptions in Python?
5. What is operator overloading in Python?
6. What are different types of inheritance supported by Python? Explain.
7. What s the difference between else block and finally block in exception handling? Explain with an example program.
8. How to implement method overriding in Python? Explain.
9. Discuss with an example exceptions with arguments in Python.
10. Differentiate between class variables and instance variables
11. Write a Python program that overloads + operator, to add two objects of a class