Question Bank - Python Programming (S.Y.B.Sc. I.T. SEM III 2023-2034)

Unit 1

1) Describe features of Python Programming Language.
2) Elaborate uses/applications/implementation of Python programming.
3) Explain braces, brackets, and parenthesis in python.
4) Explain the concept of nested loops.
5) Explain the execution process of the Python program.
6) Discuss order of operations in Python.
7) How do we implement the " if-else" condition. Explain with an example.
8) Describe control statements of Python Programming Language
9) Illustrate types of error in python programming.
10) Explain different data types available in Python Programming Language.
11) Explain the nested "if-else " statement with the help of an example.
12) What is python programming?.
13) Define keywords .Explain the following pass ,break ,continue, def and lambda.
14) Describe any five type conversion in python programming.
15) What are membership and identity operators in Python?
16) Explain the types of comments in python.
17) Explain input and output statements in python.
18) What is the condition statement and state its importance?

Unit 2

1) How to declare a user defined function in a Python program?
2) What are built in and user defined functions?
3) Illustrate any five functions of the math module
4) Describe any five boolean functions.
5) Explain the concept of fruitful function and void function.
6) What is a recursive function? Elaborate with the help of an example.
7) Define funcion.Give advantages and disadvantages of recursive function
8) Explain different operations of a string.
9) Explain slicing of strings in Python.
10) How to invoke a user defined function? Explain.
11) Explain various functions with arguments in python programming.
12) Explain the importance of functions.
13) Illustrate any five methods of a string in Python Programming Language.
14) Explain the following i) capitalize() ii)find() iii) replace() iv)split() v)join()
15) Describe slicing and indexing of a string in python programming.
16) Explain string operations in python programming
17) Explain string comparison in python programming
18) Explain the use of concatenating(+) and repeating (*)operators in python programming.

Unit 3

1) How to create and access a list in Python.
2) Explain any five methods of a list.
3) Explain use IN and NOT IN operator in list

4) Describe concatenation and repeat operation tuple with an example.
5) Describe functions of a tuple with an example.
6) Elaborate on Dictionary with examples in python program.
7) Explain various operators available for dictionary in Python.
8) Differentiate between tuple list and dictionary.
9) How to convert a list into a dictionary? Explain with the help of a suitable example.
10) Define an exception. Describe its type.
11) Explain procedure to create user defined exception.
12) Elaborate with syntax or structure for handling exception.
13) Describe " exception handling method" used in a Python Program.
14) Describe any 5 built in exception in python
15) Illustrate the following :i)ZeroDivisionError ii)EOFError iii) importError
16) Explain various file operation in python
17) Discuss various mode in file handling
18) Write Short note on File object attributes and file methods in file handling.

Unit 4

1) Define regular expressions? Explain its concept with the help of an example
2) Explain any five special sequences used in regular expression formation
3) What is a constructor? How is it created in a Python Program?
4) How to define a class in Python?
5) How to create an object in a class? Explain with the syntax and example.
6) What are module and explain various types of modules
7) State advantages of using modules
8) Explain import time module with any 5 functions
9) Explain random module with any5 function
10) How to define a class in Python? Explain
11) How to create an object in a class? Explain with the syntax and example
12) Discuss in brief inheritance and multiple inheritance in Python.
13) What is method overriding in python?
14) Explain the syntax to implement the inheritance in Python Program.
15) Define a thread. Explain any four methods of the thread module.
16) Explain procedure to create a thread in a Python Program.
17) Explain types of threads in python.
18) Describe various object oriented features.

Unit 5

1) What is GUI? Give its advantages.
2) Explain Button widget along with its method and implementation.
3) Explain various layout management methods of tkinter.
4) Describe and list various GUI libraries available in Python
5) What are widgets in Tkinter?
6) Describe with syntax any 5 widgets classes.
7) Discuss geometry management methods with syntax.
8) Elaborate the procedure to connect from python to MySQL database

9) How to design a python GUI database
10) Give syntax and example for Text, Entry RadioButton CheckButton in python GUI.
11) Illustrate the insert query is executed using MySql Connector.
12) Explain how the select query is executed using MySql Connector.
13) Explain how to work with color and font in tkinter.
14) Discuss the cursor object of MySql Connector.
15) Explain the following fetchone() and fetchall() methods
16) Explain how to read values from the database.
17) Explain the following methods
commit(), execute(), mysql.connect(), mainloop() and Tk()
18) Describe standard attributes and properties of widgets.