

BAL BHARATI PUBLIC SCHOOL, NAVI MUMBAI

SUB: COMPUTER SCIENCE ANSWER KEY (2020-21)

CLASS -XII

Chapter: Using Python Libraries

Q.1 Define the following terms:

- a) Module b) Package c) PYTHONPATH variable d) Namespace

Ans: a) Module: Every Python program file is a module that contains objects, attributes and functions related to a particular task.

b) Package: A Python program folder is a package that contains various related modules within it.

c) PYTHONPATH variable: Variable that tells the interpreter where to locate module files imported into a program. It includes the Python source library directory as well as other directories.

d) Namespace: A collection of names mapped to corresponding objects used to define scope.

Q.2 Discuss the different ways of importing Python modules into the program.

Ans: Python modules can be imported into other modules using the following methods:

- i) Import statement: It gives access to all attributes like variables, constants etc.
- ii) from statement: Lets us import specific

Q.3 Name the three types of Namespaces used in Python.

Ans: The three types of Namespaces used in Python are: Global, local and built-in.

Q.4 What is the significance of LEGB rule?

Ans: LEGB rule is used for name resolution of variables, modules etc. in Python in the following order:

Local-> Enclosed-> Global-> Built-in

Q.5 What is module and member aliasing?

Ans: An alias name created for a module or a specific member using “as” keyword is called as module or member aliasing. It makes the programming environment more user friendly.
e.g. `import test_module as TM`

Q.6 What is the role of `_init_.py` file?

Ans: `_init_.py` is a file that is used to initialize the Python packages.

Q.7 What do you understand by local and global scope of a variable? How can you access a global variable if the function has a local variable with the same name?

Ans: A global variable is accessed globally, whereas a local variable is accessible within the current scope(usually a function), We can access the global variable by using the keyword “global” before the variable name.

Q.8 What is dot notation of referring to objects inside a module?

Ans: To use , access or invoke a function , the module name and name of the function -separated by a dot.

e.g random.randint

Q.9 What is the role of today() and now() from datetime module ?

Ans: today()- returns the current system date

now()- returns current date and time using datetime library

Q.10. What possible outputs are expected to be displayed on screen at the time of execution of the program from the following code?

```
import random
AR=[20,30,40,50,60,70]
FROM=random.randint(1,3)
TO=random.randint(2,4)
for K in range (FROM, TO+1):
    print ( AR[K], end= “#”)
```

- i) 10#40#70# ii) 30#40#50# iii) 50#60#70# iv) 40#50#70#

Q.11 Name the Python library modules which need to be imported to invoke the following functions:

- a) pow() ii) lower() iii) randrange() iv) month()

Ans: a) pow()- math b) lower()- string iii) randrange()- random iv) month()- datetime