LAB # 11

Modules and packages

**EXERCISE**

1. **Point out the errors, if any, and paste the output also in the following Python programs.**
2. Code:

|  |
| --- |
| import sys as s  print(sys.executable)  print(sys.getwindowsversion()) |

Output:

|  |
| --- |
| Sys is written instead of s. |

1. Code:

|  |
| --- |
| import datetime  from datetime import date  import times  # Returns the number of seconds  print(time.time())  # Converts a number of seconds to a date object  print(datetime.datetime.now()) |

Output:

|  |
| --- |
| Times is written instead of time. |

1. Code:

From math import math

# using square root(sqrt) function contained

print(Math.sqrt(25) )

print(Math.pi)

# 2 radians = 114.59 degreees

print(Math.degrees(2))

Output:

|  |
| --- |
| Math is causing error in line 1 |

1. **What would be the output of the following programs:**
2. Code:

|  |
| --- |
| import calendar  yy = 2017  mm = 11  # display the calendar  print(calendar.month(yy, mm)) |

Output:

|  |
| --- |
|  |

1. Code:

|  |
| --- |
| import sys  print(sys.argv)  for i in range(len(sys.argv)):  if i==0:  print("The function is",sys.argv[0])  else: print("Argument:",sys.argv[i]) |

Output:

|  |
| --- |
|  |

1. Code:

|  |
| --- |
| import numpy as np  # Creating array object  arr = np.array( [[ 1, 2, 3],  [ 4, 2, 5]] )  # Printing array dimensions (axes)  print("No. of dimensions: ", arr.ndim)  # Printing shape of array  print("Shape of array: ", arr.shape)    # Printing size (total number of elements) of array  print("Size of array: ", arr.size) |

Output:

|  |
| --- |
|  |

1. **Write Python programs for the following**:

1. Write a NumPy program to create an 1D array of 10 zeros, 10 ones, 10 fives

**CODE**:

|  |
| --- |
| import numpy as npy  Ones=npy.ones(10)  Zeros=npy.zeros(10)  Fives=npy.ones(10)\*5  print("10 Ones Of 1 Dimension Arrays \n ",Ones,'\n')  print("10 Zeros Of 1 Dimension Arrays \n",Zeros,'\n')  print("10 Fives Of 1 Dimension Arrays \n",Fives,'\n') |

**OUTPUT:**

|  |
| --- |
|  |

2. Write a NumPy program to create a 3x3 matrix with values ranging from 2 to 10.

**CODE**:

|  |
| --- |
| import numpy as npy  Mat=npy.arange(1,10).reshape(3,3)  print("A Matrix of 3x3 Matrix")  print(Mat) |

**OUTPUT:**

|  |
| --- |
|  |