

**KAMANI SCIENCE & PRATAPRAI ARTS COLLEGE, AMRELI**  
**(BCA SEM - 5)**

**[Major - 12] CS -30: Programming in Python**  
**UNIT - 3 (Assignment Questions Bank)**

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- Q - 1 How to solve 0/1 knapsack problem using dynamic programming? Explain in detail.
- Q - 2 What is Dynamic Programming? Explain divide and conquer in detail with example. (Merge Sort)
- Q - 3 What is Memoization? Explain with Fibonacci Example.
- Q - 4 Explain Plotting Mortgages in python.(Ex Mortgage Loan)
- Q - 5 Explain pylab.show(), pylab.legend(), pylab.title(), pylab.xlim(), pylab.ylim(), pylab.xlabel(), pylab.ylabel(), pylab.bar(), pylab.pie(), pylab.grid() functions in python.

**OR**

- Q - 5 Explain various methods used to plot graph in Python.
- Q - 6 What is Plotting? Explain plot() function in PyLab with all parameters with example.
- Q - 7 Write a program to draw simple plot and scatter plot with legend with at least five point.
- Q - 8 Explain pylab.savefig() function in python.
- Q - 9 Explain subplot() in Python with example.
- Q - 10 Explain hist() in pylab in detail.
- Q - 11 Explain pylab.bar() and pylab.pie() in python in detail.

**Q - 12 Write the following. (1 Marks)**

- (1) Knapsack problem is also known as \_\_\_\_\_.
- (2) \_\_\_\_\_ method display the graphical window on the computer screen.
- (3) When stores PyLab Figure, Default extension \_\_\_\_\_.
- (4) Which function is used to save plot graph to file?
- (5) png stands for \_\_\_\_\_.
- (6) Dynamic programming was invented by \_\_\_\_\_ in \_\_\_\_\_ year.
- (7) Plotting programming we should install \_\_\_\_\_ package.
- (8) pylab provides many of the facilities of \_\_\_\_\_
- (9) \_\_\_\_\_ method displays the graphical window on the computer screen.
- (10) \_\_\_\_\_ is a python module that provides tools for scientific computing.
- (11) pyLab is embedded with \_\_\_\_\_ module of python.
- (12) \_\_\_\_\_ function is used to display chart/figure.
- (13) Dynamic Programming is mainly an optimization over plain \_\_\_\_\_.
- (14) MATLAB stands for.
- (15) Which function is used to show legends?
- (16) Which function is used to create a histogram?
- (17) Which function is used to create subplot?
- (18) Which Python package is used for 2D graphics?