

QP CODE: 26019126



Reg No :

Name :

M.Sc DEGREE (CSS) EXAMINATION, MARCH 2026

Fourth Semester

M Sc PHYSICS

ELECTIVE - PH820403 - COMPUTER APPLICATIONS IN PHYSICS

2019 Admission Onwards

9CA4CCEC

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

Weight 1 each.

1. Describe Debugging in MATLAB.
2. How will you generate multiple plots in MATLAB ?
3. How will you perform Symbolic Summation in MATLAB ?
4. Write a note on MATLAB tools for Wavelet Analysis.
5. What is the use of partial differential equation toolbox in MATLAB?
6. Write the syntax of if statement in Python.
7. Write about read() method in Python.
8. How an array is created in Python?
9. How can you plot a mathematical function $y = f(x)$ in Python?
10. What is least square fitting?

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

Weight 2 each.

11. Describe the construction of real and complex variables using MATLAB.
12. Write down the MATLAB syntax for finding maximum and minimum points.
13. Why instrument control tool box is used ?





14. Discuss the Basics of Artificial Neural Network.
15. List and explain various datatypes available in Python.
16. Explain exception handling in Python with examples.
17. What is Pie chart? How is it useful? How can you create it in Python?
18. Write a program in Python to find and display the sum and product of two given polynomials.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

Weight 5 each.

19. Describe the datatypes available in MATLAB.
20. Write MATLAB script for solving Ordinary Differential Equation , by choosing an example.
21. Explain user defined functions in python. What is the use of default arguments?
22. Explain the procedure with examples in Python for:
 - 1.Solving a system of linear equations.
 2. Finding the roots of a nonlinear equation.

(2×5=10 weightage)

