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PRESIDENCY UNIVERSITY BENGALURU

Department of Research & Development

Mid - Term Examinations - September 2024

Odd Semester: Ph.D. Course Work

Course Code: ECE848

Course Name: Application of python to image processing

Department: ECE

Date: 27/09/2024

Time: 10:00am – 11:30am

Max Marks: 50

Weightage: 25%

Instructions:

- (i) Read the all questions carefully and answer accordingly.
 - (ii) Do not write any matter on the question paper other than roll number.
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PART A (THOUGHT PROVOKING)

Answer any 4 Questions. Each question carries 5 marks.

(4Qx 5M= 20M)

1. Student A is having a digital data in register X and another data in register Y. He want to know thr relation between two data (=,>,<).How will you do the above operation using python. (CO1 understand)
2. What is a variable in Python? Explain with an illustration the way in the variables are declared. (CO1 understand)
- 3.You are having the output of two sensors in integer form a and b which are connected with output X with the equation $X=(b+(a+b^5))*a^7$. Bring out a python program to calculate X
4. What do you mean by classification in image processing? Bring out the importance of binary classification in image processing
5. You are having an array of 10 datas which are the output of 10 sensors, you want to normalize them which is nothing but dividing each data with largest value. Write a python program for the above situation.

PART B (PROBLEM SOLVING)

Answer all the Questions. Each question carries 10 marks.

(3Qx 10M= 30M)

6. What are Modules in Python? How to import modules?

7. Write a Python Program to accept Student Name, Student ID and 6 subjects Marks. Find the total Marks and percentage. If total Marks ≥ 60 , display "Student got INR 5000 scholarship". If total Marks < 60 , display "Student must read well to get scholarship".

8. Vinod is having data in the form of strings. He wants to add two data. Write a Python program for the same. Which are the other operations that can be performed using the same data.