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| **SCHOOL OF COMPUTER SCIENCE AND ARTIFICIAL INTELLIGENCE** | | | | | **DEPARTMENT OF COMPUTER SCIENCE ENGINEERING** | | | | |
| **ProgramName:**B. Tech | | | | **SET-A** | | | **AcademicYear:**2025-2026 | | |
| **Roll No.** | | | |  | | | | | |
| **Instructor(s)Name** | | | | 1. Dr. Venkataramana 2. Dr. Ch. Sridhar 3. Mr. Kundan | | | | | |
| **CourseCode** | | | 24CS002PC215 | **CourseTitle** | | AI Assisted Coding | | | |
| **Year/Sem** | | | II/I | **Regulation** | | R24 | | | |
| **Date and Day**  **of Assignment** | | | 22.08.2025 | **Time(s)** | | 01.00PM To 03.00PM | | | |
| **Duration** | | | 2 Hours | **Applicableto**  **Batches** | | 24BTCAIAIB09, 24BTCAIAIB10 | | | |
| **Lab Test :1**(Present test number)/**4**(Total number of tests) | | | | | | | | | |
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|  | **Q.No.** | **Question** | | | | | | ***ExpectedTime***  ***to complete*** |  |
|  | 1 | **Task Description#1**   * Write Python function with the help of GitHub Copilot and VS Code to classify the people based on Age Group. And explain the code with required comments     **Expected Output#4**   * Age\_Classifies function   **Prompt:** Write a python function to classify the people on Age Group and eplain the code with comments.  **Code:**      **Output:**  **Explaination:**   * **Function purpose: classify\_age(age) returns a label describing the person’s age group.** * **Validation:** * **Checks the input is a number (int or float). Otherwise raises TypeError.** * **Disallows negative ages. Raises ValueError if age < 0.** * **Normalization:** * **Converts the input to int (age = int(age)) so values like 17.9 are treated as 17, preventing float edge cases.** * **Classification logic:** * **Uses ordered checks with inclusive upper bounds:** * **<= 12 → "Child"** * **<= 17 → "Teen"** * **<= 24 → "Young Adult"** * **<= 44 → "Adult"** * **<= 64 → "Middle Aged"** * **Else → "Senior"** * **Docstring:** * **Documents the groups, arguments, return value, and possible exceptions to make the function self-explanatory.** * **Interactive usage (if \_\_name\_\_ == "\_\_main\_\_":):** * **Prompts the user for input, converts it to float, calls classify\_age, and prints the result.** * **Wraps the process in a try/except to show any error messages cleanly (e.g., non-numeric input or negative age).**     **Task Description#2**   * Write Python program in cursor AI for **student class** with attributes like Name, Roll no, Marks and also construct a method i.e., **display\_details** to display name, rollno and marks   **Expected Output#5**   * Student Class and Display Details   **Prompt:** Write a python program for Student class with attributes like Name, Roll no, Marks and also construct a method i.e., **display\_details** to display name, rollno and marks.print it with user input.  **Code:**    **Output:**    **Explaination:**   * **We made a class Student that stores three things: name, roll\_no, and marks.** * **When we create a student, we pass these three values, and it saves them inside the object.** * **display\_details method just prints the name, roll number, and marks of that student.** * **read\_marks\_input function:** * **Asks the user to enter marks.** * **You can type marks separated by commas or spaces (like 90, 85 78).** * **It tries to convert each value to a number.** * **If something isn’t a number, it skips it and shows a warning.** * **It returns a list of numbers.** * **Main part of the program (runs when you execute the file):** * **It asks for name, roll number, and marks.** * **It creates a Student object using those values.** * **It prints the details using display\_details**   **Note: Report should be submitted a word document for all tasks in a single document with prompts, comments & code explanation, and output screenshots**  **Evaluation Criteria:**   | **Criteria** | **Max Marks** | | --- | --- | | Factorial Function (Task#1) | 5 | | Sorting Function (Task#2) | 5 | | Viva | 5 | | **Total** | **15 Marks** | | | | | | | 22.08.2025 03.00PM |  |