

## QUESTION 1

### **Problem Statement: Student Mark Sheet Preparation**

#### **Objective:**

A master has come to the school, and he wants to prepare the mark sheets of some students. He has some data that he uses to create a specific format with which to produce this output.

#### **Task:**

Develop a function named **generateStudentMarkSheets** to process the provided student and subject data, and produce a formatted mark sheet for each student.

#### **Input:**

```
const students = [
  { name: "Dhishan Debnath", Roll: 1 },
  { name: "Animesh Gupta", Roll: 2 },
  { name: "Tapas Sen", Roll: 3 },
  { name: "Misti Dutta", Roll: 4 },
  { name: "Chini Misra", Roll: 5 }
];
```

```
const Details = [
  { Roll: 5, subjects: { math: 35, english: 56, chemistry: 76, computer: 68 } },
  { Roll: 3, subjects: { math: 33, chemistry: 12, computer: 50, english: 35 } },
  { Roll: 1, subjects: { math: 55, english: 75, chemistry: 76, computer: 94 } },
  { Roll: 4, subjects: { english: 12, chemistry: 85, computer: 68, math: 45 } },
  { Roll: 2, subjects: { math: 55, english: 56, computer: 48, chemistry: 12 } }
];
```

#### **Output:**

```
const studentsMarkSheets = [
  { name: "Dhishan Debnath", Roll: 1, math: 55, english: 75, chemistry: 76, computer: 94, total: 300, status: "pass" },
  { name: "Animesh Gupta", Roll: 2, math: 55, english: 56, computer: 48, chemistry: 12, total: 171, status: "fail" },
  { name: "Tapas Sen", Roll: 3, math: 33, chemistry: 12, computer: 50, english: 35, total: 130, status: "fail" },
  { name: "Misti Dutta", Roll: 4, english: 12, chemistry: 85, computer: 68, math: 45, total: 207, status: "pass" },
  { name: "Chini Misra", Roll: 5, math: 35, english: 56, chemistry: 76, computer: 68, total: 235, status: "pass" }
];
```

#### **Requirements:**

Create the **generateStudentMarkSheets** function to process student and subject data.

Calculate total marks for each student.

Determine pass/fail status based on a total marks threshold (e.g., total marks  $\geq 200$  for passing).

Ensure the output follows the specified format.