ourdiu.com | Shared by MD. SOUROV HASAN

Daffodil International University

Faculty of Science & Information Technology

Department of Information Technology & Management

Course Code: ITM323 ; Course Title: Software Quality Assurance and Testing

Time: 30 minutes **26 /10/2026** **Marks: 15**

Question 01: Define Independent Testing. Compare Developer Testing and Independent Testing. Analyze how test independence improves defect detection effectiveness in software testing. (3 marks)

Question 02: A university develops a CGPA processing module that accepts a student's CGPA as a numeric input. The system follows these rules:

- CGPA must be within the range 0.00 to 4.00, inclusive.
- The input must contain at most two decimal places.
- If the CGPA is valid, the system assigns a category:
  - Below 2.00: Probation
  - 2.00 to below 3.00: Satisfactory
  - 3.00 to below 3.75: Merit
  - 3.75 to 4.00: Dean's List
- Inputs outside the permitted range, non-numeric inputs, and values with more than two decimal places must be rejected.

a) Identify all valid and invalid equivalence classes for this system. (2 marks)

b) construct a test case table for the given scenario. (3 marks)

Question 03: Explain the major goals of software testing with suitable real-life examples for each goal. (3 marks)

Question 04: Draw and **explain** the ISTQB fundamental test process and identify which phase is most critical, justifying your answer with proper reasoning. (4)

ourdiu.com