**Birla Institute of Technology & Science, Pilani**

**Work Integrated Learning Programmes Division**

**First Semester 2022-2023**

**Mid-Semester Test**

**(EC-2 Regular)**

Course No. : SE ZG552

Course Title : Software Testing Methodologies

Nature of Exam : Open Book

Weightage : 35%

No. of Pages = 1

# No. of Questions = 7

Duration : 2 Hours

Date of Exam : 25/09/2022 (FN)

Note to Students:

1. Please follow all the *Instructions to Candidates* given on the cover page of the answer book.
2. All parts of a question should be answered consecutively. Each answer should start from a fresh page.
3. Assumptions made if any, should be stated clearly at the beginning of your answer.
4. You are building a web application which can be used globally. You need to validate a web page which takes Name (only alphabets), mobile number, Gender, DOB(DD/MM/YYYY) as input to fetch employee records from the application server. Design at least 10 different test cases to validate all the above-mentioned input fields. Please use Boundary value analysis and Equivalence partitioning techniques while designing/writing test cases. (5 marks)
5. Build a decision table and simplify the same. Customer can withdraw money from ATM. ATM machine pays out the amount if the customer enters correct pin and if customer has sufficient funds in their account or if the customer has the credit granted. ATM should also have enough funds to dispense the cash as per the customer request. (5 marks)
6. Using decision table, identify all the Rules and Action stubs. Construct decision table for the give scenario. If customer buys any car of price more than 5Lakh, they will get 5% discount (festive offer). Repeat/loyal customer gets an additional discount 2% cash back irrespective of the car model/cost as per the policy. If the mentioned vehicle is not in stock and expected to be delivered July 1st, additional 4% service tax is added in the form of GST if the vehicle price is more than 5L and only 2% service tax added if the price is less than 5L. Customer pays using the credit card, additional 2.5% will be charged as bank service tax. (5 marks)
7. Explain the various testing techniques available? Mention the purpose/intention/objective of each testing technique? Who does the testing? At what stage of SDLC, which type of testing can be done?

(5 marks)

1. Explain how change in the project requirements can be accommodated? Which software development life cycle model can be chosen when change in the requirements are inevitable as business is so dynamic? Justify? (5 marks)
2. Describe the various differences between black box, white box and Grey box testing techniques in a tabular format with right examples (5 marks).
3. Explain any 5 important benefits of Software Testing Life Cycle (STLC). Explain Entry Criteria and Exit Criteria in STLC (5 marks).

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