BTECH
(SEM-7) SOFTWARE TESTING 2021-22

TIME:3 HOUR   *Total Marks: 100*

Instruction: Attempt the questions as per the given instructions. Assume missing data suitably.

SECTION - A		
Attempt *All Parts* in Brief		**2*10 = 20**
Q1	**Questions**	**Marks**
(a)	What is the difference between alpha testing and beta testing ?	2
(b)	What is the need of software validation after a change ?	2
(c)	What is software testing ?	2
(d)	What are drivers and stubs ?	2
(e)	What is the difference between testing techniques and testing tools ?	2
(f)	What is the difference between QA and testing?	2
(g)	How can you do black box testing of a database ?	2
(h)	What is website testing?	2
(i)	Write the tools for test data generation.	2
(j)	What is the difference between software testing and debugging?	2

SECTION - B

Attempt _Any Three_ of the following   **3*10 = 30**

Q2	Questions	Marks
(a)	How object oriented testing is different from procedural testing ?	10
(b)	How do you measure software quality? Discuss correctness versus reliability pertaining to programs.	10
(c)	Explain the various data flow testing criteria.	10
(d)	How reusability features can be exploited by object-oriented testing approach ?	10
(e)	Explain cyclomatic complexity, its properties and meaning in tabular form.	10

SECTION - C

Attempt _Any One_ of the following   **5*10 = 50**

Q3	Questions	Marks
(a)	What are the categories to evaluate regression test selection techniques ? Why do we use such categorization?	10
(b)	What is the difference between equivalence partitioning and boundary value analysis methods ?	10

Q4	Questions	Marks
(a)	What is software quality ? What are three dimensions of software quality ? Explain briefly.	10
(b)	Explain equivalence class partitioning and boundary value analysis. Compare the two.	10

Q5	Questions	Marks
(a)	What are the various types of errors detected in black-box testing ?	10
(b)	Differentiate between top down and bottom up integration testing.	10

Q6	Questions	Marks
(a)	What is the difference between system testing and acceptance testing ?	10
(b)	What is structured programming ? Why it is important ?	10

Q7	Questions	Marks
(a)	Explain how risk matrix can be used to prioritize the test cases ?	10
(b)	What do you mean by Big-bang' integration strategy ?	10