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**EXAMINATION PAPER**

**SESSION MARCH – AUGUST 2024**

**BOARD EXAM**

**AUGUST 2024**

**FACULTY : MCS**

**COURSE : SOFTWARE QUALITY ASSURANCE**

**YEAR/SEMESTER : 2nd/ THIRD**

**MODULE TITLE :**

**CODE :**

**TIME ALLOWED: 3 HOURS START: 7:00 AM FINISH: 10:00 AM**

**Instruction to candidates**

1. This question paper has THREE (3).
2. Answer all **7** questions in Section A, VSAQ
3. Answer **7** questions out of 9 in Section B, SAQ.
4. Answer **2** questions out of 3 in Section C, LAQ.
5. No scripts or answer sheets are to be taken out of the Examination Hall.
6. Lengthy answers do not win more marks. Students are advised to write clear and concise answer with valid relevant examples

***Do not open this question paper until instructed***

*(Candidates are required to give their answers in their own words as far as practicable*

**SECTION A**

**Very Short Answer Questions**

**Attempt all seven (7) questions [2 × 7 = 14]**

1. How do you define the Career role as Software Quality Engineer?
2. Write down the code to run the postman collection through Command Prompt with Newman along with its environment file and data file.
3. Illustrate the use of 'Assertions' in JMeter. List out different assertion elements in JMeter?
4. What is a wireframe Document? What do we use Wireframes for?
5. What are some benefits of Software Testing?
6. What do you mean by End-to-End Testing in Quality Assurance?
7. Distinguish Between Severity and Priority.

**SECTION B**

**Short Answer Questions**

**Attempt only seven (7) questions out of nine (9) questions [8 × 7 = 56]**

Q.1 Illustrate with a Diagram and Explain each of the roles of QA in each of the phases of the Software Development Life Cycle (SDLC). **[Chapter 1: Introduction to Software Quality Assurance]**

Q.2 What are the Types of Testing? List and explain at least 4 types for functional and non-functional types of testing each. **[Chapter 3: Types of Testing in Quality Assurance]**

Q.3 What is a Gantt chart Document? What are some Pros and Cons of it? Illustrate Gantt Chart Document with a suitable Diagram. **[Chapter 2: QA Documentation Practices and Types**]

Q.4 When do we use global variables, collection variables, and local variables? **[Chapter 7: API Automation using Postman]**

Q.5 Describe the Different Forms of Software Quality Assurance Documentation. Explain why each of them are essential. **[Chapter 2: QA Documentation Practices and Type]**

Q.6 What is a Defective Life Cycle? Illustrate and explain some of the Defect states of Defect Life Cycle. **[Chapter 4: Defect Reporting and Defect Tracking]**

Q.7 What Tracing Document do we use to make sure all the requirements have been covered? Explain some Types of Traceability Matrix form. What are some advantages of the document? **[Chapter 5: Test plan Document and Testcases]**

Q.8 What is an API? List and explain some of the types of API testing. **[Chapter 6: API Testing]**

Q.9 What is Postman? What are some of the common HTTP methods that we used in Postman to send requests. Explain each of them briefly **[Chapter 7: API Automation using Postman]**

**Group C**

**Long Analytical or Case Question**

**Attempt any two (2) questions out of three (3) questions [15 × 2 = 30]**

Q.1 What are Software Development methodologies? List any Five models of SDLC. Explain Agile Methodology and Waterfall Methodology in detail with a Diagram. **[Chapter 2: QA Documentation Practices and Types] (5 + 10)**

Q.2 List out key differences between Test Scenario and Test Case? List out any 5 Test cases for a Login Scenario of the system that has Email, Password Field and Submit Button on its UI. And present it on a proper Test Case Template with proper for any two of those Test Cases. You can assume the site name as "[www.example.com](http://www.example.com)" to mention on your test case document. **[Chapter 5: Test plan Document and Testcases]** (4+5+6)

Q.3Explain the architecture of Apache JMeter. How does it facilitate performance testing?

Discuss the components such as Samplers, listeners, Config Elements and Processors.

**[Chapter 8: Performance Testing with JMeter]** (2+2+11)

**Good Luck**