

POKHARA UNIVERSITY

Level: Bachelor Semester: Spring Year : 2019
Programme: BE Full Marks: 100
Course: Software Testing, Verification, Validation Pass Marks: 45
and Quality Assurance Time : 3hrs.

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

The figures in the margin indicate full marks.

Attempt all the questions.

1. a) Describe, with examples, the way in which a defect in software can cause harm to a person, to the environment or to a company. 8
b) Explain the seven principles in testing. 7
2. a) With proper examples and justification, differentiate between Verification and Validation providing their importance. 7
b) If you are a Project Manager of a company, then how and which techniques would you perform validation to meet the project quality. Describe in details. 8
3. a) What are the different types of Non-functional testing? Write your opinion regarding its importance. 7
b) In what ways, static technique is significant and necessary in testing of any project? 8
4. a) Explain the characteristics, commonalities, and differences between specification-based testing, structure-based testing and experience-based testing. 8
b) Compare experience-based techniques with specification-based testing techniques. 7
5. a) Explain the benefits and drawbacks of independent testing within an organization. 8
b) Describe a risk as a possible problem that would threaten the achievement of one or more stakeholders' project objectives. 7
6. a) Summarize the potential benefits and risks of test automation and tool support for testing. 8

b) Write various challenges while performing web app testing and mobile app testing. 7

7. Write short notes on: (**Any two**) 2×5

- a) Ethics while testing
- b) 6 Sigma
- c) Risk Management in Testing