

Department of Computer Science & IT
The Islamia University of Bahawalpur

Date: Friday, 23 Nov. 2017

MSCS (1st – Fall 2017-19) – Mid-term

Subject: Software Engineering and Formal Specification

Course Instructor: Dr. Nadeem Akhtar

Time: 80 mins

CSIT-31012

Total: 30 Marks

Q. no. 1. Short Questions.

- (a) State briefly the benefits of using Formal approaches in the analysis, design, architecture and implementation of modern software?
- (b) Define a *Formal Language*. Give examples of formal languages.
- (c) Differentiate between *Verification* and *Validation* from formal perspective.
- (d) Differentiate between Software Engineering Method and Methodology.
- (e) Define Robustness.

(4 + 4 + 4 + 4 + 2 = 18)

Q. no. 2.

- a) Briefly define the relationship between quality attributes of Correctness and Reliability? Give examples.
- b) What are the advantages of using the abstraction? What are the disadvantages?

(3 + 3 = 6)

Q. no. 3.

- a) Describe Automated Testing. Name the tools or platforms used for automated testing.
- b) State briefly the relationship between Formality and Rigor. Give an example.

(3 + 3 = 6)