

Department of Computer Science & IT
The Islamia University of Bahawalpur

Date: Thursday, 06 April 2017

MSCS (1st – Spring 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 the term “*Separation of Concerns*”. Give examples.**
- (c) Differentiate between *Efficiency* and *Performance* 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) What is meant by the term “formal specifications”? Give examples**
- b) State briefly the relationship between Formality and Rigor. Give examples.**

(3 + 3 = 6)