



## 605.601— Foundations of Software Engineering

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### Fall 2020 Mid-Term Examination

Due by 12:00 midnight, October 20, 2020

Please download / or use this document to type your answer. My preference is that you submit it in Microsoft Word format. However, I will accept it in PDF format as well. Please email your answer document to [tkhazra@gmail.com](mailto:tkhazra@gmail.com) or [thazra1@jhu.edu](mailto:thazra1@jhu.edu) as an attachment. Please answer in your own words where possible.

Please answer any five (5) questions. Please type your answers below the question in the corresponding bullet points. Please keep the bullet points separate from each other.

**Name:** **[Please type your name here]**

1. (a) What does “Software Engineering” mean to you? (b) What does “software” mean to you? (c) Please describe a software that you use on a regular basis? (d) Why do you use it? (e) Please list two primary benefits of the software you use?

Answers:

(a):

(b):

(c):

(d):

(e):

2. (a) From your own personal or professional experience, can you distinguish or differentiate a software from a computer program, and if so, how? (b) Please list a difference between the two – software and computer program? (c) Do

you think there is a difference between a computer programmer and a software engineer? Please explain. (d) As a professional, why software engineering is a discipline of your interest?

Answers:

(a):

(b):

(c):

(d):

3. (a) What is software development life cycle or SDLC? (b) What is the primary benefit of software development process? (c) How many different software development processes have you heard of or know of? (d) Please describe one of the processes in your own words (e) List the common phases of a software development process.

Answers:

(a):

(b):

(c):

(d):

(e):

4. (a) How do you describe software project management? (b) What does project management involve? (c) What are the four major components of project management? (d) Which one of the components is most important? And, why? (e,) Why do we need software project management process? (f) Please elaborate on one of the components of software project management process.

Answers:

(a):

(b):

(c):

(d):

(e):

(f):

5. (a) What is a software requirement? (b) What is the fundamental purpose of defining or identifying requirements? (c) What are the basic difficulties you have experienced in gathering requirements for your class project? (d) What would you have liked to do differently and why?

Answers:

(a):

(b):

(c):

(d):

6. (a) What does "object orientation" mean to you? (b) What is the importance of modeling in object-oriented software engineering?? (c) Please present a simple example of object orientation that you are familiar with? (d) Why do you believe object-orientation can provide you a value as a software engineer? (e) Please list two benefits of object-orientation that you may use in your team project?

Answer:

(a)

(b)

(c)

(d)

(e)