



Midterm Examination Cover Sheet
Second Semester: 1436-1437 / 2015-2016

Course Title:	<u>Software Engineering</u>	Course Code:	<u>IT242</u>
Exam Duration:	<u>60 Minutes</u>	Number of Pages: (including cover page)	<u>6</u>

The table below is to be filled by the student

Student Name:	_____	Student ID:	_____
Class Day & Time:	_____	CRN:	_____
Instructor Name:	_____	Exam Date:	<u>9/3/2016</u>

Exam Guidelines

- Mobile phones are not permitted.

Marking Scheme

Questions	Score
Q1	/ 10
Q2	/ 10
Q3	/ 4
Q4	/ 4
Q5	/ 4
Q6	/ 8
Exam Score / 40	/ 40
Final Score / 25	/ 25



Q1: For each of the following multiple choice questions, choose one correct answer.

1. A software product line is a set of software-intensive systems that share a common, managed _____.
a) Set of problems Answer: c
b) Set of products
c) Set of features
d) Set of lines

2. Which of the following did not belong to the process umbrella activities?
a) Software project tracking and control Answer: d
b) Risk management
c) Technical reviews
d) None of the above

3. Which of the following is not a software life cycle?
a) Spiral model Answer: b
b) Capability maturity model
c) Prototype model
d) Waterfall model

4. The team member who is assigned the boundary spanning role that crosses the team boundaries to collect information is called:
a) Ambassador Answer: c
b) Sentry
c) Scout
d) Coordinator

5. Requirement models depict software in which three domains? Answer: c
a) Architecture, interface, component
b) Cost, risk, schedule
c) Information, function, behavior
d) None of the above



6. The last task of the Requirements Engineering process is:

- a) Negotiation
- b) Validation
- c) Management
- d) Specification

Answer: c

7. Which model in requirements modelling depicts how data are transformed inside the system?

- a) Scenario-based
- b) Class-oriented
- c) Behavioral
- d) Flow-oriented

Answer: d

8. One way to identify analysis classes in requirements modeling is:

- a) Ask the customer to define the classes that he/she wants.
- b) Perform "Grammatically Parse"
- c) Approach the project manager for answers
- d) Conduct CRC review meetings

Answer: b

9. All of the following are class types except:

- a) Dependency classes
- b) Entity classes
- c) Boundary classes
- d) Controller classes

Answer: a

10. The _____ is simply the current status of all of an object's attributes.

- a) passive state
- b) active state
- c) event
- d) state transition

Answer: a

[10 Marks]



Q2: For each of the following statements, answer with True or False.

1.	Software is a product and can be manufactured using the same technologies used for other engineering artifacts.	F
2.	A concerted effort should be made to understand the problem before a software solution is developed.	T
3.	Agile methods seem to work best when team members have a relatively high skill level.	T
4.	Software engineering team structure is independent of problem difficulty and size of resultant program(s) in lines of code.	F
5.	The design model should be traceable to the requirements model.	T
6.	Non-functional requirements can be safely ignored in modern software development projects.	F
7.	A Use-case actor is always a person having a role that different people may play.	F
8.	In class based requirement modeling, CRC stands for Cyclic-Redundancy-Check.	F
9.	The most basic element in the description of a requirements model is the software pattern.	F
10.	Interaction Analysis is the description of the manner in which the user interacts with the WebApp.	T

[10 Marks]

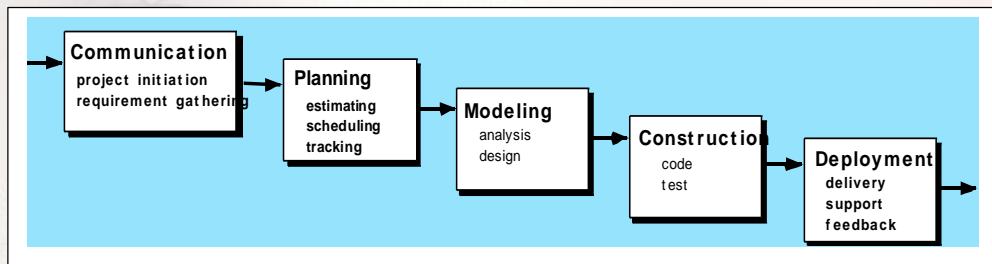


Q3: How do software characteristics differ from hardware characteristics?

Software is developed, not manufactured. Software does not wear out.
Most software is custom built, not assembled out of components.

[4 Marks]

Q4: List out the stages of Waterfall Model.



[4 Marks]

Q5: Explain the meaning of software domain analysis?

The identification, analysis, and specification of common requirements,
reuse on multiple projects within that application domain

[4 Marks]



Q6: Requirements monitoring encompasses set of tasks. Explain four of these tasks.

- **Distributed debugging** – uncovers errors and determines their cause.
- **Run-time verification** – determines whether software matches its specification.
- **Run-time validation** – assesses whether evolving software meets user goals.
- **Business activity monitoring** – evaluates whether a system satisfies business goals.
- **Evolution and codesign** – provides information to stakeholders as the system evolves.

[8 Marks]

End of the Exam ... Good Luck