

SIT 725:-Software Engineering

Lecture 11



Exam Notes and Review

Unit Assessment Information

Assignment 1 Weight: 20%

Assignment 2 Weight: 20%

Final Examination: Weight: 60%

Final Examination Marks distribution

Section-A: 25 Multiple Choice questions

Each question has 1.2 marks, total=30 Marks

Section-B: Has 5 short answer questions, each has
6 marks, Total 30 Marks

Total Final exam marks=60

Examination is closed book

Two hours final examination.

Short answer Questions (Sample)

1. List the main goals of the requirement analysis of a web application. Week-4, slide-3
2. Explain different analysis models and how they represent the requirements of a web application. Week-3, slide 5,6,7, week-4, 4,10-11,12,13
3. Describe different layers of Web applications , week-1, slide 17-22
4. Describe different types of conventional process models: Iterative, waterfall, parallel. Week-1 slides: 23-27
5. Describe the Web application attributes that gives more complexity to it and requires disciplined and systematic approaches for its development. Week-1 13-15
6. Describe the Web Engineering process framework. Week-2 slides: 3-7
7. Describe the goals of a web application design. Week-5, 5,6
8. List the elements of web application design. W5, 7-8
9. What are the different information structure you will use to structure the information and content of your web application? Explain each of them. (Week-5, slide,18-20)
10. In CRC modelling, explain responsibilities and collaborations. Week-5, 28

Short answer Questions (Sample)

11. Explain entity, boundary and controller class, week-5 slide-32
12. Explain aggregation, composition, week-5 slide-34
13. Describe the steps of navigation design using navigational elements, transformation of multiplicities, aggregation and composition from content model. (Week-6, slide,28-29,31)
14. What is UML profile? Describe its utilization in software analysis and design (week-6, slide 19-26)
15. Define navigation semantic unit (NSU)? Week-6, slide,17-18
16. What are the different types of functionality that a Web-Applications should support? Explain user level and application level functionalities, week-9, slide 6-8
17. Describe the Model View Controller (MVC) architecture and different components of MVC using an appropriate diagram. week-9, slide 9-10
18. What is WAE? Describe WAE model stereotypes with symbols week-9, slide 14-18
19. What is a technical debt in software engineering? List all of the subcategories of technical debt? Give a short description on each categories. Week-10/ slides 5-9,
20. Discuss the consequences of technical debt. Week-10/ slides 10-13,
21. Discuss three principal activities that are adopted to manage the technical debt. Week 10/14-17

Short answer Questions(Sample)

22. What is envisioning session in agile approaches. Describe the activities of envisioning session in agile approach. Lecture -2, 24-28.
23. Explain the difference between epics, features, user story and tasks with appropriate diagram, lecture-2/ 29-30, week-4, slide 24, lecture-6, sprintbacklog,
24. What is backlog grooming in scrum approaches? What are the activities completed in grooming? Week-3, 12-14
25. Explain story map Week-3, 35
26. Explain the planning poker PBI estimation technique. Week-4, slide 28-34
27. Explain the responsibilities of product owner with respect to organizational stakeholders, customers/users and development team. Week-7 slides 4-6
28. Describe the principal responsibilities of Scrum Master role. Explain the essential characteristics of a Scrum Master role in a scrum team Week-7 slides 8-10
29. List different types of planning is accomplished throughout the product development in agile approaches. What are the differences between portfolio planning and product planning?
Week-7 11, 13,17-18

Short answer Questions(Sample)

30. What is product roadmap? How product roadmap is created? Explain the factors that influences release goal in product roadmap. Week-7, 21-24
31. What is a sprint? Define sprint goal. Explain the steps of a two-part sprint planning approach. W-8, 2-3, 8-12
(Described basic steps and flowchart)
32. Explain sprint burn down and burnup chart, week-8, 20-21
33. What is a portfolio planning? In portfolio planning, participants engage in four kinds of activities such as scheduling, managing inflows, managing outflows, and managing in-process products. Discuss the specific strategies that are adopted for each of these activities. Week 7, 13-16

Short answer Questions(Sample)

34. Why testing is more important for web applications? Explain the dimensions of quality for web application testing. Week-10/ 4-6

35. Explain the testing process of an web application with appropriate diagram. Week-10/7-8

36. What are the main objectives of the content testing? W-10/ 9

37. Explain the following testing categories w.r.to web application w-10/10, 16-29

1. unit testing
2. compatibility testing
3. Navigation testing
4. User interface testing
5. Useability testing
6. Performance testing

Sample Final exam Questions: MCQ

Which of the following is not an artifacts of scrum approach?

- A) Product backlog
- B) Sprint Backlog
- C) Shippable product incremental version
- D) Software testing tools

Answer: D

Sample Final exam Questions: MCQ

In scrum, when is the product backlog created?

- A) During sprint execution
- B) At the time of sprint planning
- C) Before sprint planning
- D) None of the above

Answer: C

Sample Final exam Questions: MCQ

Sprint burn down chart is prepared based on which of the following?

- A) Effort-Hours completed per sprint
- B) Effort-hours completed for scheduled tasks per day
- C) Effort-hours remaining per day for scheduled tasks in a sprint
- D) None of the above

Answer: C

Sample Final exam Questions: MCQ

Which of the following is not an activity as part of sprint planning

- A) Decompose a user story into tasks
- B) Determine capacity
- C) Write the code and complete testing the product
- D) Acquire confidence
- E) Plan for testing the server side scripts

Answer: C

Sample Final exam Questions: MCQ

Which one of the following is not an activity of scrum process?

- A) Sprint review
- B) Sprint retrospective
- C) Sprint design and analysis
- D) Product backlog grooming
- E) Envisioning
- F) None of the above

Answer: C

Sample Final exam Questions: MCQ

Which one of the following is not a pre-set keyword of a standard product vision statement?

- A) Our product
- B) Unlike
- C) For
- D) What
- E) That

Answer: D

Resources to Use for Final examinations

- ▶ Questions from the practicals and Web application examples in practical tasks.
- ▶ The theoretical parts in the weekly lecture slides
- ▶ Webb application Examples in lecture slide

Question?

Thank you very much

Good Luck with your exam