CMSE-201 problem session 11.02.2022

Ch 1. Introduction

1. What are the five indicators that a project goes wrong?
2. What is software?
3. What are the attributes of good software?
4. What is software engineering?
5. What are the five fundamental software engineering activities?
6. What is the difference between software engineering and computer science?
7. What is the difference between software engineering and system engineering
8. What are the three key challenges facing software engineering?
9. What are the three main contributors to the cost of software engineering?
10. What are the best software engineering techniques and methods?
11. What are challenges of web-oriented software engineering?
12. What is the difference between generic and custom software?
13. What software maintainability is?
14. What software dependability and security is?
15. What software efficiency is?
16. What software acceptability is?
17. What are the four reasons for software change?
18. What are the eight types of software systems?
19. What are the eight ACM/IEEE ethical principles?

Ch 2-A. SDLC models

1. What are the four characteristics of a software process?
2. What are the ten SDLC activities?
3. What waterfall model is? Its benefits? Deficiencies?
4. What incremental development model is? Its benefits? Deficiencies?
5. What integration and configuration model is? Its benefits? Deficiencies?
6. What are the three types of reusable software?
7. What V-shaped model is? Its benefits? Deficiencies?
8. What are the four phases of rapid application development (RAD) model? RAD benefits? Deficiencies?
9. What is spiral development model? Its benefits? Deficiencies?
10. What are the features of Agile development SCRUM model?

Ch 2-B SW development processes

1. What are the three activities of the requirements engineering?
2. What are the four design activities?
3. What is programming and debugging?
4. What is software verification? Validation?
5. What are the three test types?
6. What prototyping is? Its benefits? Deficiencies?
7. What process improvement is? What are its three activities?

Ch 3. Requirements engineering

1. What are functional, non-functional and domain requirements?
2. What are user and system requirements?
3. What is use-case diagram? What are its elements?
4. What are four types of system stakeholders?
5. What are the three types of non-functional requirements?
6. What is verifiable non-functional requirement?
7. What are the four phases of requirements elicitation and analysis process?
8. What are the five problems of requirements elicitation?
9. What are the two types of interview? Explain them
10. What are the five parts of a scenario description?
11. What are the five ways of writing requirements?
12. What are the problems with natural languages?
13. What a structured specification is?
14. What are the seven parts of a function description?
15. What a tabular specification is? Give an example
16. What a software requirement specification is?
17. What requirements validation is?
18. What five checks are to be used in requirements validation?
19. What is traceability of a requirement?
20. What are the four steps of requirements change?