

Reg. No. :

Name :

Third Semester B.Sc. Degree Examination, October 2019

Career Related FDP under CBCSS

Group 2 (b) – Computer Science

Core Course

CS 1342 : SOFTWARE ENGINEERING

(2018 Admission)

Time : 3 Hours

Max. Marks : 80

PART – A

Answer all questions. Each question carries 1 mark.

1. Define software Engineering.
2. Define build and fix style.
3. Name the phases in water fall model.
4. Name the project estimation techniques.
5. SRS stands for _____.
6. Define modularity.
7. What is DFD?

P.T.O.

8. What is the objective of code walkthrough?
9. Define Unit Testing.
10. Define corrective maintenance.

PART – B

(10)

Answer any **eight** of the following. Each question carries **2** marks.

11. Explain advantages and disadvantages of agile methods.
12. Differentiate functional and nonfunctional requirements.
13. Differentiate product and process.
14. Explain basic COCOMO.
15. What is decision tree? Explain.
16. What are the characteristics of a good SRS Document?
17. What do you mean by coupling and cohesion?
18. Define structured design.
19. What are the characteristics of a good user interface?
20. Distinguish between an error and a failure in the context of program testing.
21. What are the advantages of client-server software development?
22. What do you mean by the term software reverse engineering?

(8 × 2 = 16)

PART – C

Answer any **six** questions. Each question carries **4** marks.

23. Explain spiral model.
24. Write a note on project planning.
25. Explain risk management.
26. Write a note on important uses of SRS document for a project.
27. Draw a Data Flow Diagram for railway reservation system.
28. What are the types of user interfaces?
29. How to compute the cyclomatic complexity? Explain with an example.
30. What are the characteristics of software maintenance?
31. Write a note on service-oriented architecture.

(6 × 4 = 24 Marks)

PART – D

Answer any **two** questions. Each question carries **15** marks.

32. Explain water fall model in detail.
33. Briefly explain requirement analysis and specification.
34. Explain in detail about functional oriented design.
35. Write short notes on black box and white box testing.

(2 × 15 = 30 Marks)



Reg. No. : 32017295010

Name : Harish S. Nair

Third Semester B.Sc. Degree Examination, January 2019
Career Related FDP Under CBCSS
Group 2 (b) : COMPUTER SCIENCE
Core Course - CS 1342 : Software Engineering
(2014 Admission Onwards)

Time : 3 Hours

Max. Marks : 80

SECTION - A
(Very Short Answer Type)

Answer all questions.

(10×1=10 Marks)

1. An object oriented software component is made of _____
2. UMLs are used for _____
3. The output of system design stage is represented by _____
4. The term used to refer to the checking of outputs of a computer with the corresponding documents is called _____
5. _____ implementation of software does not involve source coding and compiling.
6. Running the system under a live environment using Live data in order to find errors is known as _____
7. The testing of software against SRS is called _____
8. _____ is hidden in Black box testing.
9. Classification of software maintenance include/includes _____
10. Software maintenance takes inputs from _____

P.T.O.

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SECTION - B

Not to exceed **one** paragraph. Answer **any eight** questions. **Each** question carries **two** marks. (8x2=16)

11. Comment on the various phases of SDLC.
12. How can we derive the size of software product ?
13. List out the software requirements.
14. What is concurrency and how it is achieved in software ?
15. List the purposes of Data Flow diagrams, Entity - Relationship diagrams.
16. Discuss the different steps involved in prototyping.
17. Comment on what verification represents ?
18. Write out the reasons for the failure of water fall model.
19. Explain the merits of incremental model.
20. Discuss the challenges in software.
21. What are the steps followed in testing ?
22. List out the objectives of Requirement Analysis.

SECTION - C
(Short Essay)

Not to exceed **120** words. Answer **any six** questions. **Each** question carries **4** marks. (6x4=24 Marks)

23. Define the following :
 - i) Software Product
 - ii) Software Engineering.
24. State 6 Core Principles of Software engineering and give their specific meaning.
25. Differentiate between Software Verification and Software Validation.
26. Explain the concept of "functional independence" used in software design.



27. State four characteristics of Software.

28. What do you understand by horizontal and vertical partitioning ?

29. Explain cohesion and coupling, make a classification of cohesion and coupling.

30. Explain briefly upon software maintenance activities and how do you estimate the cost incurred.

31. Comment upon White Box and Black Box Testing in detail.

**SECTION – D
(Long Essay)**

Answer **any two** questions. **Each** question carries **15** marks.

(2×15=30 Marks)

32. Explain about the software life cycle process.

33. Comment on the different types of software testing.

34. Explain in detail about SCM process.

35. Comment on SRS in detail.



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Reg. No. :

Name :

Third Semester B.Sc. Degree Examination, December 2017

Career Related FDP Under CBCSS

Group 2(b) : Computer Science

Core Course

CS1342 : SOFTWARE ENGINEERING

(2014 Admission Onwards)

Time : 3 Hours

Total Marks : 80

SECTION – A

Answer **all** questions. **Each** question carries **one** mark.

(10×1=10 Marks)

1. To produce good quality product, process should be
2. SRS stands for
3. For a function of n variables, boundary value analysis yields _____ test cases.
4. _____ are semantic connection between classes in an object oriented system.
5. _____ are used to quantify the attributes of software development process and environment.
6. A design notation used for representing function oriented design is
7. UML is
8. Level.0 DFD is similar to
9. Cyclomatic complexity is denoted by $V(G) =$
10. The objective of testing is

P.T.O.

SECTION - B

Answer any eight questions. Each question carries two marks. (8x)

11. What is software engineering? What are the components of software?
12. Write short note on "status of development team" for the selection of a life model.
13. What are structure charts?
14. What are the objectives of using DFD?
15. What is system testing?
16. Differentiate between conceptual and technical design.
17. What is meant by module coupling?
18. Explain error, mistake, fault and failure.
19. Define software reliability.
20. Define Control Flow Graph.
21. Differentiate between verification and validation.
22. What is the primary goal of coding phase?

SECTION - C

Answer any six questions. Each question carries four marks. (6x4=24 Marks)

23. Explain the limitations of waterfall model.
24. Explain the different phases of project management process.
25. Explain the various steps in requirement analysis.
26. Explain the various concepts behind object oriented design.
27. What is prototyping in problem analysis? What are the various approaches in prototyping?

- 28. Explain the various program verification methods.
- 29. What is test plan ? What are its components ?
- 30. Explain the development steps in ERD of a system.
- 31. Explain equivalence class partitioning.

SECTION - D

Answer **any two** questions. **Each** question carries **15** marks.

(2×15=30 Marks)

- 32. What are software life cycle models ? Explain various evolutionary process models.
 - 33. Explain the structured design methodology for developing system designs. Explain how a detailed design is different from system design.
 - 34. Explain the characteristics of a good SRS.
 - 35. Write notes on :
 - a) Object oriented design using UML
 - b) Design walkthroughs
 - c) Critical design reviews
 - d) Consistency checkers.
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