BC-2878

BCA (Semester-IV) Exam.–2015

Software Engineering

Time : Three Hours
Maximum Marks : **75**

Note :- Attempt questions from all the sections.

SECTION - A

(Short Answer Type Questions)

Note : Attempt **any ten** questions. Each question carries 3 marks. 10×3=30

1. What are the responsibilities of project manager?

2. "Software can not be manufactured" justify it.

3. What are the characteristics of software?

4. Write the definition of software engineering according to IEEE standard.

5. Differentiate validation and verification.

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6. Which process model is most suitable for redefined problem for the system? Explain it.

7. What is SRS? Define its characteristics.

8. What are the requirement felicitation techniques?

9. "In software development life cycle design phase comes before coding." Justify the statement.

10. Give the difference between function oriented and object oriented design.

11. Define association and aggregation.

12. Explain test plan document.

13. Describe software reengineering.

14. What do you understand by reliability of a software?

15. Describe Control Flow Graph with suitable example.

SECTION - B

(Long Answer Type Questions)

Note : Attempt **any three** questions. Each question carries 15 marks. 3×15=45

1. What is Documentation? What is the need of documentation? Also explain the categories of software documentation.

2. Define Modularization. Explain coupling and its types with example.

3. Draw DFD upto first level for college management system. (Use appropriate notations)

4. What is Testing? Explain levels of Testing. Also write the rules for writing Test plan and test cases.

5. Explain the follwing terms :
   (a) DFD
   (b) Flow chart
   (c) Sequence Diagram
   (d) Activity Diagram
   (e) Class Diagram

6. (a) Consider a project with the following functional units :

Number of user inputs = 50

Number of user outputs = 40

Number of user enquiries = 35

Number of user files = 06

Numer of external interfaces = 04

Assume all complexity adjustment factors and weighting factors are average. Compute the function points for the project.

(b) A new project with estimated 400 KLOC embedded system has to be developed. Project manager has a choice of hiring from two pools of developers, very high capable with very little experience in the programming language being used or developers of low quality but a lot of experience with the programming language. What is the impact of hiring all developers from one or the other pool?

(7)

BC/BS/BT-2097/2120/2137

BCA/B.Sc.(CS)/B.Sc.(IT)
(SEMESTER-IV) EXAM.-2016

Software Engineering

Time : Three Hours
Maximum Marks : **70**

Note : Attempt questions from all sections.

SECTION - A

(Short-answer Type Questions)

Note : Attempt **any 7** questions. Each question carries 4 marks. 4×7=28

1. Discuss SDLC in Brief ?

2. What are the Characteristics of SRS? Explain.

3. What do you mean by a DFD? Explain some of the symbols used to draw a DFD.

4. What do you understand by the term 'Software testing'? What are the objectives of testing?

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5. What is the difference between verification and validation.?

6. Explain waterfall model in detail with the help of a diagram?

7. Differentiate between top-down and bottom-up designing techniques.

8. Define cohesion and coupling.

9. Write short note on 4GL's technique?

10. What do you mean by software crisis? Discuss the problems and causes for the software crisis.

SECTION - B

(Long Answer type questions)

Note : Attempt **any two** questions. Each question carries 21marks. (21x2=42)

1. What are different types of maintenance that a software product might need? Why is such maintenance required?

2. What do you understand by software configuration management? How can you manage software configuration.

3. What is meant by the term testing? Explain the different types of testing performed during software development.

4. Explain the following :
   (a) Components of Software
   (b) Software Quality assurance
   (c) Software Reliability
   (d) Components of SRS

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BC–2878

B. C. A. (Fourth Semester)

EXAMINATION, 2019

SOFTWARE ENGINEERING

Time : Three Hours

Maximum Marks : 75

Note : Attempt questions from both Sections as directed.

Section—A

(Short Answer Type Questions)

Note : Attempt any *ten* questions. Each question carries 3 marks. 10×3=30

1. What is software ? List the aesthetic properties of the software.

2. How does DFD, State chart and Z tools help in writing good SRS ?

3. List the formulae to measure correctness and modularity of the software.
4. List the key process activities at primary design.
5. What is walk through ? How is it different from software debugging ?
6. What is software volume metrics ? List the usage of LOC and KDL.
7. Differentiate between platform independency and software compatibility.
8. What is prototype model ?
9. Differentiate between operational and technical feasibility.
10. What is code inspection ? How is it different from logical proofing ?
11. What is software reusability ?
12. Differentiate between unit testing and system testing.
13. What is the difference between edition and version of a software ?

14. What is paralled method of software implementation ?

15. What are the techniques of software maintenance ?

Section—B

(Long Answer Type Questions)

Note : Attempt any *three* questions. Each question carries 15 marks. 3×15=45

1. Represent the format of SRS script of a new software. Explain the usage of the following tools in developing good SRS :

   (a) Structured English

   (b) SADT chart

2. Explain the importance of feasibility analysis of a software. Describe the various types of feasibility study made for a new software.

3. Enumerate the procedure with example to perform COCOMO to evaluate cost, time, effort and man-power requirement to develop a new software.

4. What is glass box testing ? How is it different from black box testing ?

5. Write notes on any *three* of the following :

   (a) Software evaluation

   (b) Software crisis

   (c) Software training

   (d) Software Re-engineering