10. (a) Outline the characteristics of basic COCOMO MODEL. 7½

(b) Give detail of various design components which are used to prepare DFD of a system. 7½

11. Explain the following: 5×3=15

(1) Line of Code

(2) Function points

(3) Decision Tree

12. With a neat diagram explain the building blocks of CASE tool for software engineering. 15

13. Differentiate between the following:

(1) E-R diagram and DFD 5×3=15

(2) Dynamic modeling and Functional modeling

(3) Waterfall model and Spiral model

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B.C.A. Examination, May 2017

Information System Analysis Design and Implementation

(BCA-602)

(New)

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

Note: Attempt questions from all Sections as per instructions.

Section-A

(Very Short Answer Questions)

Note: Attempt all the **five** questions. Each question carries **3** marks. Very short answer is required not exceeding **75** words.

3×5=15

P.T.O.

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1. What do you mean by system analysis and system design? 3

2. Explain the importance of software requirements analysis. 3

3. Discriminate between risk analysis and feasibility analysis. 3

4. Define the benefits of object oriented analysis over structured analysis. 3

5. Define software process with suitable example. 3

Section- B

(Short Answer Questions)

Note: Attempt **all** the **two** questions out of the following three questions. Each question carries **7½** marks. Short answer is required not exceeding 200 words.

7½×2=15

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6. Explain the key attributes of a system analyst for software development. 7½

7. Determine the advantage of using Prototype software development model instead of Waterfall model? 7½

8. Discuss the size and cost estimation methods of a software project. 7½

Section- C

(Detailed Answer Questions)

Note: Attempt **all** the **THREE** questions out of the following **five** questions. Each question carries **15** marks. Answer is required in detail. 15×3=45

9. (a) Differentiate between Cohesion and Coupling. 7½

   (b) With a suitable diagram explain the working of Spiral model. 7½

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P.T.O.

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10. What do you mean by project scheduling ? Assume that a software development group has been asked to build a real-time controller for a medical diagnostic instrument that is to be introduced to the market in nine months. After careful estimation and risk analysis, the software project manager comes to the conclusion that the software, as requested, will require 14 calendar months to create with available staff. How does the project manager proceed ?   15

11. Discuss the various levels of classical waterfall model.   15

12. How is software design different from software coding ?   15

13. Answer the following :   15
   (a) Line of code
   (b) Function points
   (c) Egoless programming
   (d) CASE tools
   (e) Decision tree.

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BCA - VI Sem.

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B. C. A. Examination, May 2018

Information System Analysis Design &

Implementation

(BCA-602)

(New)

Time : Three Hours]   [Maximum Marks : 75

Note : Attempt questions from all Sections as per instructions.

Section-A

(Very Short Answer Questions)

Attempt all the *five* questions. Each question carries 3 marks. Very short answer is required not exceeding 75 words. $3 \times 5 = 15$

1. List the advantages of prototype model of software development.   3

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2. Mention the importance of requirement analysis in a software development life cycle. 3

3. State the benefits of E-R diagram. 3

4. Describe the disadvantages of Waterfall model. 3

5. List the different software size estimation techniques. 3

Section-B

(Short Answer Questions)

Attempt any *two* questions out of the following three questions. Each question carries 7½ marks. Short answer is required not exceeding 200 words.

7½×2=15

6. Answer the following : 7½

(a) Describe the key concept of object oriented programming.

Or

(b) Estimate the responsibilities of a software project manager.

7. Answer the following : 7½

(a) What do you mean by size of software ? Why does a project manager need to estimate the size of a project ?

Or

(b) Determine the advantage of using Spiral software development model instead of waterfall model.

8. Explain the following : 7½

(i) Class

(ii) Object

(iii) Attribute.

Section-C

(Detailed Answer Questions)

Attempt any *three* questions out of the following five questions. Each question carries 15 marks. Answer is required in detail. 15×3=45

9. What is the significance of structure analysis in software development life cycle ? 15

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Total Questions : 13]   [Printed Pages : 3

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B.C.A. VIth Semester Examination, May-2019

INFORMATION SYSTEM ANALYSIS DESIGN AND IMPLEMENTATION

(BCA–602)

Time : 3 Hrs.]   [M.M. : 75

Note :– Attempt all the Sections as per instructions.

Section–A

(Very Short Answer Type Questions) 3×5=15

Note :– Attempt all the *five* questions. Each question carries 3 marks. Very short answer is required not exceeding **75** words.

1. What are the various duties performed by DBA ?

2. What are the feasibility analysis check points in the development cycle ?

3. Explain various characteristics of a system.

4. State the benefits of E-R diagram.

5. What is project scheduling ?

Section–B

(Short Answer Type Questions) 7½×2=15

Note :– Attempt any *two* questions out of the following three questions. Each question carries 7½ marks. Short answer is required not exceeding 200 words.

6. Explain the SDLC with diagram.

7. Explain the software, product and process quality with example.

8. Describe the key concept of object oriented model.

Section–C

(Long Answer Type Questions) 15×3=45

Note :– Attempt any *three* questions out of the following five questions. Each question carries 15 marks. Answer is required in detail.

9. What is structured system analysis and design ? Explain the process of SSAD.

10. (a) What do you mean by Joint Application Design (JAD) ?

    (b) What are the various advantages and disadvantages of waterfall model ?

11. Differentiate between :

    (i) Direct and Indirect Costs

    (ii) Fixed and Variable Costs

    (iii) Opportunity and Sunk Costs.

12. (a) Differentiate between PERT and CPM.

    (b) Differentiate between project planning and project monitoring.

13. Write short notes on the following :

    (i) Decision tree

    (ii) Sequence diagram

    (iii) Line of code

    (iv) Function point metrices

    (v) Attribute.

13. Write short notes on :

    (i)   Process Design

    (ii) Decision Tree

    (iii) Line of code

    (iv) Polymorphism

    (v) Attribute

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B.C.A. VIth Semester Examination,

June-2020

INFORMATION SYSTEM ANALYSIS

DESIGN AND IMPLEMENTATION

(BCA-602)

(NEW)

Time : Two Hours]   *[Maximum Marks : 75*

Note : Attempt **all** the Sections as per instructions.

Section - A

(Very Short Answer Type Questions)

Note: Attempt **any four** questions. Each question carries 3.75 marks. Very Short Answer is required not exceeding 75 words.   3.75×4=15

P.T.O.

1. Define the characteristics of a system.

2. Explain 'Analysis' and 'Design' phases of SDLC.

3. Explain the concept of RAD model.

4. Mention various steps in drawing DFD.

5. What do you mean by Feasibility study?

Section - B

(Short Answer Type Questions)

Note : Attempt any **one** question out of the following **three** questions. Each question carries 15 marks. Short answer is required not exceeding 200 words. $1 \times 15 = 15$

6. What are the various techniques used in SSADM?

7. What is Prototyping? Why do we need such a technique.

8. Explain various steps used in object oriented analysis.

Section - C

(Long Answer Type Questions)

Note : Attempt any **Two** questions out of the following **Five** questions. Each question carries 22.5 marks. Answer is required in detail. $2 \times 22.5 = 45$

9. What are CASE tools? How does CASE support in software life cycle.

10. Explain the different categories of maintenance in the SDLC.

11. What is Risk analysis? What are the various risk that can result in project failure?

12. (a) What do you mean by Joint Application Design (JAD)?

    (b) What are the various advantages and disadvantages of waterfall model?

3. Explain the benefits of CASE tools.

4. Differentiate between CMM and ISO.

5. What do you mean by DFD?

Section - B

(Short Answer Type Questions)

Note : Attempt any **one** question out of the following three questions. Each question carries 15 marks. Short answer is required not exceeding 200 words. $1 \times 15 = 15$

6. What do you mean by Feasibility study? Explain.

7. What do you mean by Information Engineering? Explain.

8. Explain the process of software project management.

Section - C

(Long Answer Type Questions)

Note : Attempt any **two** questions out of the following five questions. Each question carries 22.5 marks. Answer is required in detail. $2 \times 22.5 = 45$

9. Explain the concept of waterfall model with the help of suitable diagram.

10. What is Prototyping? Why do we need such a technique?

11. Draw a diagram of the architecture of a CASE environment and explain how different tools are integrated.

12. What are the various steps in object oriented design? Explain.

P.T.O

13. What is structured system analysis and design? Explain the process of SSAD.

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BCA-VI Sem.

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B.C.A. Examination, June-2021

INFORMATION SYSTEM ANALYSIS

DESIGN AND IMPLEMENTATION

(BCA-602)