D–1736

Sub. Code
41221

DISTANCE EDUCATION

P.G.D.C.A. EXAMINATION, DECEMBER 2023.

Second Semester

SOFTWARE ENGINEERING

(CBCS 2018 – 2019 Academic Year Onwards)

Time : Three hours Maximum : 75 marks

PART A — ($10 \times 2 = 20$ marks)

Answer ALL the questions.

1. Define Software myths.
2. What is CMMI model?
3. What is object oriental anlaysis?
4. Define Data modeling concepts.
5. What is software architecture?
6. Define Software design.
7. What is debugging?
8. Why we need software metrics.
9. List out the type of risk strategies.
10. What is quality management?

PART B — ($5 \times 5 = 25$ marks)

Answer ALL the questions, choosing either (a) or (b).

11. (a) Describe roll and myths of software.

Or

(b) Write short note on personal and team process models.

12. (a) Illustrate the concepts of software requirement engineering process with example.

Or

(b) Explain about flow-oriented modeling.

13. (a) What is structured design? Explain structured design process in software design.

Or

(b) Describe user interface analysis in design.

14. (a) Difference between verification and validation in software testing.

Or

(b) Explain the process of unit testing.

15. (a) What is risk? Explain the various types of risks.

Or

(b) Explain about software reviews and technical reviews.

PART C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

16. Explain in detail about Evolutionary process model.

17. Discuss the various modeling in requirement engineering in detail.

18. Explain the component level design with suitable examples.

19. Describe in detail about object oriented in software testing .

20. Discuss about risk protection and risk mitigation.

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D–1737

Sub. Code
41222

DISTANCE EDUCATION

P.G.D.C.A. EXAMINATION, DECEMBER 2023.

Second Semester

RELATION DATABASE MANAGEMENT SYSTEMS

(CBCS 2018 – 2019 Academic Year Onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. Define Data Abstraction.

2. What is the function of Query Processor?

3. What do you mean by Joins?

4. Define views.

5. What is Union operation?

6. What are the problems of redundancy?

7. How will you define NULL values?

8. What is BCNF?

9. Define Atomicity.

10. Expand ISAM.

PART B — ($5 \times 5 = 25$ marks)

Answer ALL the questions, choosing either (a) or (b).

11. (a) Write a brief note on Schema.

Or

(b) Explain DML commands with examples.

12. (a) Explain about Integrity Constraints.

Or

(b) Discuss Join Operation in brief.

13. (a) Explain in brief about Nested Queries.

Or

(b) Describe Lossless Join Decomposition.

14. (a) Discuss about Serializability.

Or

(b) Discuss about Remote Backup Systems.

15. (a) Write about Cluster Indexes.

Or

(b) Explain Performance Tuning.

PART C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

16. Explain in detail about ER model with examples.

17. Discuss in detail about Tuple Relational Calculus.

18. Elaborate in detail about Normal Forms.

19. Describe about Validation based protocols.

20. Compare various file organization methods in detail.

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D–1738

Sub. Code
41223

DISTANCE EDUCATION

P.G.D.C.A. EXAMINATION, DECEMBER 2023.

Second Semester

COMPUTER GRAPHICS

(CBCS 2018 – 2019 Academic Year Onwards)

Time : Three hours Maximum : 75 marks

SECTION A — ($10 \times 2 = 20$ marks)

Answer ALL questions.

1. Define resolution and aspect ratio.

2. What is horizontal and vertical retrace?

3. What is an output primitive?

4. What is the need of homogeneous coordinates?

5. Define 2D translation. List the basic 2D transformations

6. Define Homogeneous coordinates.

7. Differentiate between interpolation spline and approximation spline.

8. What is the use of control points?

9. What are the two common sources of textures?

10. Define frame.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Explain about random scan and raster scan display devices.

Or

(b) Write short notes on any two input devices with diagram.

12. (a) Write a detailed note on the basic two dimensional rotation transformations.

Or

(b) Explain in detail about window to viewport coordinate transformation.

13. (a) Write short notes on quadric surfaces.

Or

(b) Briefly explain about B-Spline surfaces.

14. (a) Write short notes on Reflection in 3D with example diagram.

Or

(b) Discuss the color models define with primary colors.

15. (a) Briefly explain about Depth sorting method.

Or

(b) What is key frame and how it will work in animation explain in detail.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions

16. Write down and explain the midpoint circle drawing algorithm with example.

17. Explain Cohen-Hodgeman polygon clipping algorithm with neat diagram..

18. Discuss in detail about polygon rendering methods

19. Write notes on: 3D viewing pipeline and volume.

20. Explain in detail about Octree method for visible surface detection.

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