

**G 5092**

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Reg. No.....

Name.....

**B.TECH. DEGREE EXAMINATION, MAY 2013**

**Seventh Semester**

Branch—Computer Science and Engineering/Information Technology

**OBJECT ORIENTED MODELLING AND DESIGN (RT)**

(Improvement/Supplementary)

Time : Three Hours

Maximum : 100 Marks

**Part A**

*Answer all questions.  
Each question carries 4 marks.*

1. List and explain the functions of object oriented models.
2. Give a brief idea about grouping constructs.
3. Distinguish between events and states.
4. What is constraint ? Explain.
5. What are the methods for identifying concumency ? Explain.
6. Explain how boundary conditions one handled.
7. Explain briefly the design options.
8. Give a brief description about physical packaging.
9. Explain when and where use-cases are applicable.
10. Explain the advantages of using unified modelling language.

(10 × 4 = 40 marks)

**Part B**

*Answer all questions.  
Each question carries 12 marks.*

11. (a) Explain with examples advanced links and association concepts.

*Or*

(b) Write notes on :

- (i) Abstract classes.
- (ii) Candidate keys.

12. (a) Explain with an example a sample dynamic model.

*Or*

(b) Describe the relation of functional to objects and dynamic models.

**Turn over**

13. (a) Explain in detail the analysis in object modelling.

Or

(b) Describe in detail the handling of global resources and boundary conditions in system design.

14. (a) Explain any *two* designing algorithms used in object design.

Or

(b) Write notes on the following :—

(i) Design of association.

(ii) Adjustment of Inheritance.

15. (a) Describe in detail the Booch's methodology.

Or

(b) Write notes on :

(i) Design model.

(ii) Notations.

[5 × 12 = 60 marks]

**G 5102**

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Reg. No.....

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**B.TECH. DEGREE EXAMINATION, MAY 2013**

**Seventh Semester**

Branch : Computer Science and Engineering/Information Technology

**COMPUTER GRAPHICS (RT)**

(Improvement/Supplementary)

Time : Three Hours

Maximum : 100 Marks

**Part A**

*Answer all questions.*

*Each question carries 4 marks.*

1. Compare DVST and refresh CRT point out some of their advantages and disadvantages.
2. List and explain some of the software standards.
3. What are normalised device co-ordinates ?
4. Give an idea about polygon clipping with figures.
5. Explain the properties of Bezier cones.
6. Explain spline representation.
7. What is meant by Dithering ? Explain.
8. What is normal vector interpolation shading ? Explain.
9. What are the classification of fractals ? Explain.
10. Give a brief idea about morphing.

(10 × 4 = 40 marks)

**Part B**

*Answer all questions.*

*Each question carries 12 marks.*

11. (a) Explain with figures the different types of graphical output devices.

*Or*

- (b) With diagram explain a random scan system.

12. (a) Explain DDA line drawing algorithm with an example.

*Or*

- (b) What are the three geometric 2D transformations ? Explain.

13. (a) Describe open uniform B-splines.

*Or*

**Turn over**

(b) Explain three dimensional display methods.

14. (a) Explain Basic illumination method.

Or

(b) Explain phony shading.

15. (a) Describe the Geometric construction of deterministic self-similar fractals.

Or

(b) Give a brief description about design of animation sequences.

(5 × 12 = 60 marks)

**G 5113**

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Reg. No.....

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**B.TECH. DEGREE EXAMINATION, MAY 2013**

**Seventh Semester**

Branch : Information Technology

**MODERN COMMUNICATION SYSTEM (T)**

(Improvement/Supplementary)

Time : Three Hours

Maximum : 100 Marks

**Part A**

*Answer all questions.*

*Each question carries 4 marks.*

1. Name two photodetectors and two light sources used in fiber optics communication.
2. What is meant by dispersion in optical fiber ? What is its units ? List different types of dispersion.
3. What are the reasons for fading in microwave communication ?
4. Name the different frequency bands for microwave communication.
5. Explain LEO, MEO and polar orbits.
6. What is meant by spread spectrum technique ? What are its features ?
7. What are the different types of hand-off mechanism in cellular communication ?
8. What is the reason for interference effects in cellular systems ?
9. List the features of B-ISDN.
10. Write short notes on TCP/IP.

(10 × 4 = 40 marks)

**Part B**

*Answer all questions.*

*Each question carries 12 marks.*

11. (a) (i) Derive an expression for the Numerical aperture of optical fiber.  
(ii) Explain the working of semiconductor laser as source in fiber optics.

*Or*

- (b) (i) Distinguish between single mode and multi mode optical fibers under what circumstances each is suitable.  
(ii) Discuss the advantages of fiber optic communication.

**Turn over**

12. (a) With a block diagram explain the different blocks in a frequency modulated microwave radio system.

*Or*

- (b) Explain the details of a typical microwave terminal station.

13. (a) Explain CDMA with respect to satellite communication. What are its features ?

*Or*

- (b) Sketch the block diagram of a communication satellite and explain the different blocks.

14. (a) Explain the concepts of frequency reuse and cell splitting in cellular communication.

*Or*

- (b) Explain PCSS mobile telephone system.

15. (a) (i) Explain the format of ATM header.

- (ii) List the features of ATM.

*Or*

- (b) (i) Write short notes on WAP.

- (ii) List the functions provided by TCP/IP.

[5 × 12 = 60 marks]

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Reg. No.....

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**B.TECH. DEGREE EXAMINATION, MAY 2013**

**Seventh Semester**

Branch : Information Technology

**MULTIMEDIA TECHNIQUES (T)**

(Improvement/Supplementary)

Time : Three Hours

Maximum : 100 Marks

*Answer all questions.*

**Part A**

*Each question carries 4 marks.*

1. Give the definition of Multimedia.
2. Differentiate between analog video and digital video.
3. What is hypertext ? Explain.
4. Explain the need for compression in multimedia applications.
5. Write notes on CD-I.
6. What are the multimedia components of a modern PC ?
7. Explain what is synchronisation.
8. What is the purpose of the Transform class ?
9. Explain what is virtual reality ?
10. Write notes on multimedia networks.

(10 × 4 = 40 marks)

**Part B**

*Each question carries 12 marks.*

11. Describe some of the basic tools for multimedia in detail.  
*Or*
12. Discuss the various storage media for multimedia applications.
13. Explain fractal and wavelet compression schemes.  
*Or*
14. Write notes on (i) RLE ; (ii) MPEG ; and (iii) JPEG.

**Turn over**

15. Discuss the features of CD-DA and DVI.

*Or*

16. Write notes on (i) Quicktime ; (ii) Microsoft Multimedia Extensions.

17. Explain the various classes for multimedia programming.

*Or*

18. Discuss the problems related to multimedia programming.

19. Discuss in detail the video capturing methods.

*Or*

20. Write notes on (i) future of multimedia ; (ii) image synthesis.

(5 × 12 = 60 marks)



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**B.TECH. DEGREE EXAMINATION, MAY 2013**

**Seventh Semester**

Branch : Computer Science and Engineering/Information Technology

WEB TECHNOLOGIES (RT)

(Improvement/Supplementary)

Time : Three Hours

Maximum : 100 Marks

*Answer all questions.*

**Part A**

*Each question carries 4 marks.*

1. What is JSP?
2. Explain scriplets.
3. List the features of Java Beans.
4. What is EJB?
5. What is a stylesheet?
6. Describe SGML.
7. What are Attributes?
8. List the different types of Bean properties.
9. Explain the features of XML.
10. List the features of Entity Beans.

(10 × 4 = 40 marks)

**Part B**

*Each question carries 12 marks.*

11. (a) Compare XML and HTML.
- (b) Explain the features of SGML.

(6 marks)

(6 marks)

*Or*

12. Explain briefly :
  - (a) Attributes of Tags.
  - (b) Entity References.
  - (c) CDATA section.

(4 marks)

(4 marks)

(4 marks)

**Turn over**

13. (a) Explain document type declaration in XML. (6 marks)  
(b) How can XML data be stored in HTML? (6 marks)
- Or*
14. List the various applications of XML. (12 marks)
15. Explain Java Beans. How can Java Beans be designed? Explain the bound and constrained properties. (12 marks)
- Or*
16. Explain Introspection and customization in detail. (12 marks)
17. Explain how Java Beans can be used in JSP. (12 marks)
- Or*
18. (a) Explain Request and Response objects of JSP. (6 marks)  
(b) Explain Serialized beans. (6 marks)
19. Discuss the steps involved in creating and implementing interfaces. (12 marks)
- Or*
20. Explain the development of a stateful session bean. (12 marks)
- [5 × 12 = 60 marks]

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**B.TECH. DEGREE EXAMINATION, MAY 2013**

**Seventh Semester**

Branch.: Computer Science and Engineering/Information Technology

**MOBILE COMPUTING (Elective I) (RT)**

(Improvement/Supplementary)

Time : Three Hours

Maximum : 100 Marks

*Answer all questions.*

**Part A**

*Each question carries 4 marks.*

1. What is DHCP ?
2. Explain cellular systems.
3. What is WAP ?
4. Discuss the features of IPV6.
5. Distinguish between LEO and HEO system.
6. Compare 802.11 and 802.16.
7. Write the features of WHL.
8. What is Multicarrier modulation ?
9. Explain Handover.
10. What are Broadcast systems ?

(10 × 4 = 40 marks)

**Part B**

*Each question carries 12 marks.*

11. Explain briefly :

(a) Mobile Telephone System.

(6 marks)

(b) Applications of cellular systems.

(6 marks)

*Or*

12. Explain the simplified Reference Model.

(12 marks)

13. Explain briefly the GSM system architecture.

(12 marks)

*Or*

**Turn over**

14. (a) Explain Multimedia object Transfer protocol. (6 marks)  
(b) Write briefly on Broadcast transmission. (6 marks)
15. Explain the architecture of Bluetooth. (12 marks)

Or

16. Explain the services of wireless ATM. Explain its reference model and Handover scenarios. (12 marks)
17. (a) Explain the goals and requirements of Mobile IP. (6 marks)  
(b) Discuss IP pocket delivery in a mobile network. (6 marks)

Or

18. Explain :  
(a) DSDV. (4 marks)  
(b) Hierarchical Routing. (4 marks)  
(c) Mobile TLP. (4 marks)
19. Explain the architecture of WAP. (12 marks)

Or

20. Explain www system architecture. (12 marks)

[5 × 12 = 60 marks]