

G 6926

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Reg. No.....¹¹.....

Name.....

B.TECH. DEGREE EXAMINATION, APRIL 2011

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. Justify why inheritance should be used with caution in OOA.
2. Explain briefly the various kinds of relationship among objects.
3. Discuss the relationship of object and dynamic model.
4. Explain the terms event, states and concurrency.
5. What is meant by handling boundary condition ?
6. Write notes on managing of data stores.
7. Explain about design optimization.
8. Explain about adjustment of inheritance.
9. What are the major advantages of UML ?
10. Write short note on sequence diagram and activity diagram.

(10 × 4 = 40 marks)

Part B

Answer all questions.

Each question carries 12 marks.

11. (a) Discuss the concepts in advanced object modelling with example.

Or

(b) Write notes on :

(i) Metadata and constraints.

(6 marks)

(ii) Multiple inheritance.

(6 marks)

12. (a) Write short notes on :

(i) Data flow diagram.

(6 marks)

(ii) Nested state diagram.

(6 marks)

Or

- (b) Discuss the process of analysis with respect to object model, dynamic and functional model.

Turn over

13. (a) Write a short note on the following :—

- (i) Breaking system into subsystem. (6 marks)
- (ii) Allocating subsystems to processors and tasks. (6 marks)

Or

(b) Describe dynamic modelling with respect to any application.

- 14. (a) (i) Discuss in detail about design of association. (6 marks)
- (ii) Compare different object design methodologies. (6 marks)

Or

(b) Discuss in detail about designing algorithms.

15. (a) Discuss in detail about Jacobson methodology with example.

Or

- (b) (i) List out the difference between implementation model and test model. (6 marks)
- (ii) With an example, show how sequencing in time is represented in UML. (6 marks)

[5 × 12 = 60 marks]

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Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, APRIL 2011

Seventh Semester

Branch : Information Technology

MODERN COMMUNICATION SYSTEMS (T)

(Improvement/Supplementary)

Time : Three Hours

Maximum : 100 Marks

Answer all questions.

Part A

Each question carries 4 marks.

1. List the features of Avalanche Photo diode.
2. Distinguish between Single mode and Multimode Optical fibers.
3. What are the reasons for losses in microwave communication ?
4. List the advantages of Microwave Communication.
5. What is the height of the geosynchronous orbit ? Prove the same.
6. Distinguish between active and passive satellites.
7. Distinguish between soft and hard hand-off in cellular communication.
8. What is the difference between GSM and CDMA schemes in cellular communication ?
9. How is B-ISDN different from ISDN ?
10. Explain any *two* types of LAN topology.

(10 × 4 = 40 marks)

Part B

Each question carries 12 marks.

11. (a) Explain the advantages and limitations of fiber optic communication systems.

(4 marks)

- (b) Explain any *two* types of detectors used in Optical Communication.

(8 marks)

Or

12. (a) Explain the different types of dispersion in optical fibers.

(6 marks)

- (b) Sketch the block diagram of a fiber optic communication system and explain.

(6 marks)

Turn over

13. With a block diagram, explain a frequency modulated microwave radio system.

(12 marks)

Or

14. With the help of a suitable block diagram, explain the working of a microwave repeater station.

(12 marks)

15. With an example explain frequency allocation schemes for satellite uplink and downlink transmission.

(12 marks)

Or

16. Sketch the block diagram of a satellite transponder and explain.

(6 marks)

17. (a) Compare analog and digital Cellular Communication Schemes.

(6 marks)

(b) Sketch the block diagram for the transceiver of any *one* type of cellular communication system and explain.

(12 marks)

Or

18. (a) Explain the significance of signal to interference ratio in Cellular Communication.

(6 marks)

(b) What is the need of cell Splitting ? How is it done ?

(6 marks)

19. Explain WAP in detail.

(12 marks)

Or

20. Write short notes on :

(i) ATM.

(6 marks)

(ii) TCP/IP .

(6 marks)

[5 × 12 = 60 marks]

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Reg. No.....

Name.....

B.Tech. DEGREE EXAMINATION, APRIL 2011

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. Discuss the common storage media for multimedia.
2. What are the applications of multimedia ?
3. Compare Lossy compression and Lossless compression.
4. What is hypermedia ? Explain.
5. Describe Quicktime.
6. Explain what is CD-I.
7. What is the purpose of format class in multimedia programming ?
8. Explain what is synchronisation. Discuss the issues.
9. What is full motion video ? Explain.
10. Write notes on multimedia networks.

(10 × 4 = 40 marks)

Part B

Each question carries 12 marks.

11. What is Computer Animation ? Discuss its potential as a powerful multimedia element.

Or

12. Discuss multimedia authority tools.
13. Discuss image capturing and rendering methods.

Or

14. What is MIDI ? What are its benefits and drawbacks ?
15. Discuss DVI in detail.

Or

Turn over

16. Explain the encoding method used in audio CD. How does it help fight read errors ?
17. What is meant by synchronisation ? What are the hurdles in proper synchronisation ? How are they tackled ?

Seventh Semester

18. Explain the problems in multimedia programming.
19. What is virtual reality ? How is it realized ? What are the applications ?

Or

20. Explain some of the video capturing methods in detail.
Maximum : 100 Marks

Time : Three Hours
(marks) 08 = 12 x 5

Answer all questions.

Part A

Each question carries 4 marks.

1. Discuss the common storage media for multimedia.
2. What are the applications of multimedia ?
3. Compare Lossy compression and Lossless compression.
4. What is hypermedia ? Explain.
5. Describe Quicktime.
6. Explain what is CD-I.
7. What is the purpose of format class in multimedia programming ?
8. Explain what is synchronization. Discuss the issues.
9. What is full motion video ? Explain.
10. Write notes on multimedia networks.

(10 x 4 = 40 marks)

Part B

Each question carries 12 marks.

11. What is Computer Animation ? Discuss its potential as a powerful multimedia element.
12. Discuss multimedia authoring tools.
13. Discuss image capturing and rendering methods.
14. What is MIDI ? What are its benefits and drawbacks ?
15. Discuss DVI in detail.

Turn over

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Reg. No.....

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B.TECH. DEGREE EXAMINATION, APRIL 2011

Seventh Semester

Branch : Computer Science and Engineering/IT

WEB TECHNOLOGIES (RT)

(Improvement/Supplementary)

Time : Three Hours

Maximum : 100 Marks

Part A

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

1. Write the features of XML.
2. Explain JSP.
3. Write the principle of designing Java Beans.
4. Discuss the Attribute types.
5. Write a note on Serialized beans.
6. What are entity beans ?
7. Explain about the views of an XML document.
8. What are the types of beans ?
9. Write about bean info clauses.
10. Write the applications of XML.

(10 × 4 = 40 marks)

Part B

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

11. Explain the features of SGML. Explain how XML forms a subset of SGML. (12 marks)
- Or
12. (a) Discuss about Entity References. (8 marks)
- (b) Write a brief note on CDATA section. (4 marks)
13. Explain the principle of displaying XML data in HTML browser as HTML tables. (12 marks)
- Or
14. Write a brief note on :
 - (a) Attribute defaults.
 - (b) Attribute type declaration and element type declaration.

(6 + 6 = 12 marks)

Turn over

15. (a) Discuss the features of Java Beans. (6 marks)
- (b) Discuss about (i) bound and constrained properties of Java Beans ; (ii) creating properties of Java Beans. (3 + 3 = 6 marks)
- Or*
16. Explain about :
- (a) Creating and using Bean info clauses. (6 marks)
- (b) Customisation. (6 marks)
17. Explain the loops and execution handling in JSP with scriptlets. (12 marks)
- Or*
18. Explain about :
- (a) Using Java Beans in JSP. (6 marks)
- (b) Reading properties of Java Beans. (6 marks)
19. Explain the steps involved in the development of Session Beans. (12 marks)
- Or*
20. Explain the features of Entity Beans in detail. (12 marks)
- [5 × 12 = 60 marks]

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Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, APRIL 2011

Seventh Semester

Branch—Computer Science and Engineering/IT

MOBILE COMPUTING (RT) (Elective I)

(Improvement/Supplementary)

Time : Three Hours

Maximum : 100 Marks

Answer all questions.

Part A

Each question carries 4 marks.

1. What are cellular systems ?
2. Write the applications of Bluetooth.
3. What is Handover ?
4. Explain GEO satellite system.
5. What is WAP ?
6. What are the requirements of Mobile IP ?
7. What is WML ?
8. Discuss briefly about ACP.
9. What is Mobile computing ?
10. Discuss about Multimedia Object Transfer Protocol.

(10 × 4 = 40 marks)

Part B

Each question carries 12 marks.

11. Write briefly about :
 - (a) Multicarrier Modulation. (6 marks)
 - (b) Advantages of Mobile computing. (6 marks)
- Or*
12. Explain Mobile Telephone system in detail. (12 marks)

Turn over

13. Explain the system architecture of a DECT system.

(12 marks)

Or

14. Describe the different satellite systems LEO, GEO and MEO in detail.

(12 marks)

15. Explain the architecture of Bluetooth.

(12 marks)

Or

16. Discuss :

(a) the services of wireless ATM.

(4 marks)

(b) Reference model of ATM.

(4 marks)

(c) Handover scenarios of ATM.

(4 marks)

17. Explain DSDV, DSR and Hierarchical algorithms.

(12 marks)

Or

18. Explain the steps involved in the packet delivery process from end to a mobile node. (12 marks)

19. (a) Explain the features of WML.

(6 marks)

(b) Explain the concept of WAP using its architecture.

(6 marks)

Or

20. (a) What is HTTP ?

(3 marks)

(b) Explain www system architecture.

(9 marks)

[5 × 12 = 60 marks]