

**Hall Ticket Number:**

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**III/IV B.Tech (Supplementary) DEGREE EXAMINATION****April, 2017****Sixth Semester****Time:** Three Hours**Computer Networks****Maximum :** 60 Marks*Answer Question No.1 compulsorily.*

(1X12 = 12 Marks)

*Answer ONE question from each unit.*

(4X12=48 Marks)

1. Answer all questions

(1X12=12 Marks)

- a. Differentiate WAN & MAN.
- b. What is meant by Packet Switching?
- c. How multicasting is different from Broadcasting?
- d. Define a subnet.
- e. What is the need of tunneling?
- f. Define VirtualCircuit.
- g. List out Berkeley Socket primitives..
- h. What is RPC?
- i. Which layer is responsible for physical addressing?
- j. Expand POP3 and IMAP.
- k. List the elements of Transport protocol
- l. What is DNS?

**UNIT I**

- 2.a What is the principle difference between Connectionless communication and Connection-oriented communication? 6M
- 2.b Compare and contrast OSI & TCP/IP models 6M

**(OR)**

- 3.a Explain about Ethernet and flooding. 6M
- 3.b Compare virtual –circuit and datagram subnets. 6M

**UNIT II**

4. Explain about QoS of network layer. 12M

**(OR)**

- 5.a What is Internetworking? Explain its concept. 6M
- 5.b Describe OSPF interior Gateway Routing protocol. 6M

**UNIT III**

- 6.a List and explain Transport service primitives. 6M
- 6.b What is multiplexing? Explain its functionality. 6M

**(OR)**

- 7.a Describe TCP and its header format with a neat sketch. 6M
- 7.b Explain about TCP connection Establishment and Release. 6M

**UNIT IV**

- 8.a What is a Name space? Explain its concept with example. 6M
- 8.b Explain i) User Agent ii) Electronic Mail Architecture 6M

**(OR)**

9. Explain the following.
  - i) Domain Name System 6M
  - ii) WWW 6M

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**III/IV B.Tech (Supplementary) DEGREE EXAMINATION****April, 2017****Computer Science & Engineering****Sixth Semester****Introduction to Data Analytics & Cyber Security****Time:** Three Hours**Maximum :** 60 Marks*Answer Question No.1 compulsorily.*

(1X12 = 12 Marks)

*Answer ONE question from each unit.*

(4X12=48 Marks)

1 Answer all questions

(1X12=12 Marks)

- a) Define Data Science
- b) How do set the path for current working directory in R?
- c) How can you load and use csv file in R?
- d) What are the different ways to call a function in R?
- e) What is Regression Analysis?
- f) What is Business Intelligence?
- g) List out types of attacks
- h) Define virus
- i) What is SQL injection?
- j) What is the difference between malware and trojan
- k) What is audit?
- l) List out key elements of Network

**UNIT I**

- 2 a) Write calculator and vector operations in R with examples? 6 M
  - b) Explain in detail about data frames and matrices? 6 M
- (OR)**
- 3 a) Explain the process of Importing & Exporting CSV files and excel files in R? 6 M
  - b) Explain Probability distribution and Normal distribution in detail? 6 M

**UNIT II**

- 4 a) Differentiate SQL vs NOSQL 6 M
  - b) The Business Analysis(BA) process can solve problems and identify opportunities to improve business performance-Justify 6 M
- (OR)**
- 5 What is Regression Model? How an OLS regression model constructed in 'R', illustrated with suitable example. 12 M

**UNIT III**

- 6 a) Explain about types of attacks and information security threats 6 M
  - b) Explain briefly types of trojans 6 M
- (OR)**
- 7 a) Explain about information security measures 6 M
  - b) What is SQL injection. Explain about phishing attack 6 M

**UNIT IV**

- 8 a) Explain about information security roles and responsibilities 6 M
  - b) Explain about security Laws 6 M
- (OR)**
- 9 a) Explain about feedback loops of Risk management 6 M
  - b) Explain security policy management 6 M

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**III/IV B.Tech (Supplementary) DEGREE EXAMINATION****April, 2017****Sixth Semester****Time:** Three Hours**Common for CSE & IT****Software Engineering****Maximum : 60 Marks***Answer Question No.1 compulsorily.*

(1X12 = 12 Marks)

*Answer ONE question from each unit.*

(4X12=48 Marks)

**1. Answer all questions**

(1X12=12 Marks)

- a) Differentiate personal software process and team software process.
- b) What are the merits of incremental model?
- c) List the task regions in the Spiral model?
- d) What is system engineering?
- e) What is the software crisis from programmers point of view.
- f) Calculate the effort required for the project and line of code if functional point involve in the project 650 based on productivity parameter 8.5 FP/month & if the project is developed FORTAN language with LOC/FP is 105.
- g) Calculate the cyclomatic complexity of a system with 8 edges & 6 nodes.
- h) Calculate number of test cases need to prepare for the evaluation of Square with has four points in construction based on boundary value analysis :generic case.
- i) What are the attributes of good software?
- j) Define Formal Technical Reviews?
- k) List the process maturity levels in SEIs CMM?
- l) What are the umbrella activities of a software process?

**UNIT I**

- 2 a) Explain the significance of the project planning and control 6M
- b) What is legacy system? Explain components of legacy system. 6M

**(OR)**

- 3 a) What is Software process model ? Explain the types of Software process models 6M
- b) What is pair programming? Highlight its advantages 6M

**UNIT II**

- 4 a) Describe briefly the phase of the system engineering process, with a neat diagram. 6M
- b) What is requirement elicitation and analysis. 6M

**(OR)**

- 5 a) Identify the stake holders of ATM system and classify them according to view points. 6M
- b) List out the core principles of software engineering practices 6M

**UNIT III**

- 6 a) Explain client-server architecture with example? 6M
- b) Consider to design a system for the inventory and billing operations of a “retail medical outlet”. Draw the context level data flow diagrams(DFDs) for the system and also prepare a SRS document. 6M

**(OR)**

- 7 a) What is software prototyping ? Give the benefits of software prototyping 6M
- b) Describe the Design Interface steps 6M

**UNIT IV**

- 8 a) Write about size-oriented and function-oriented metrics. 8M
- b) Difference between black box testing and white box testing 4M

**(OR)**

- 9 a) . What are the steps for top down integration? 4M
- b) Different types of software testing 8M

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## III/IV B.Tech (Supplementary) DEGREE EXAMINATION

April, 2017

Sixth Semester

Time: Three Hours

Common for CSE & IT  
Enterprise Programming

Maximum : 60 Marks

Answer Question No.1 compulsorily.

(1X12 = 12 Marks)

Answer ONE question from each unit.

(4X12=48 Marks)

1 Answer all questions

(1X12=12 Marks)

- a) What are the Standard Services provided by J2EE?
- b) List the rules to define well formed XML document.
- c) Compare Applet and Servlet.
- d) What is the purpose of Deployment Descriptor?
- e) Write the syntax for variable declaration in JSP.
- f) What are the types of Session Bean?
- g) What are the disadvantages of RMI?
- h) List the components of Java Mail.
- i) Define Distributed Object Model.
- j) Describe WSDL.
- k) What are the advantages of Web services?
- l) List any two tools for web services.

## UNIT I

- 2 a) Define XML. Describe how to create an XML Schema with an example. 6M
  - b) Explain Servlet Life Cycle methods with simple example. 6M
- (OR)
- 3 a) Discuss about Service tier patterns. 6M
  - b) Explain how to read the Servlet initialization parameters with an example. 6M

## UNIT II

- 4 a) Explain anatomy of JSP page and JSP Page Processing. 8M
  - b) Discuss about scalability and performance issues of EJB. 4M
- (OR)
- 5 a) Write about JSP Implicit Objects. 6M
  - b) Explain EJB Container Framework. 6M

## UNIT III

- 6 a) Explain about Java Messaging Service. 6M
  - b) Explain CORBA and Java IDL mapping. 6M
- (OR)
- 7 a) Explain RMI Architecture with a neat diagram. 6M
  - b) Explain the classes available in JNDI. 6M

## UNIT IV

- 8 a) Explain SOAP Message Architecture. 6M
  - b) Explain Web Services in Service Oriented Architecture. 6M
- (OR)
- 9 a) What is UDDI? Discuss UDDI architecture. 6M
  - b) Write short notes on Electronic Business XML. 6M

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**III/IV (Supplementary) B.Tech DEGREE EXAMINATION****April, 2017****Sixth Semester****Time:** Three Hours**Common for CSE & IT****.NET Technologies****Maximum : 60 Marks***Answer Question No.1 compulsorily.**(1X12 = 12 Marks)**Answer ONE question from each unit.**(4X12=48 Marks)**(1X12=12 Marks)*

1 Answer all questions

- What is Common Language Runtime?
- What is logging?
- What is the need for State Management?
- Write the syntax for creating Calendar control
- What is validation group
- What is Graphics class
- What is the need of SiteMap
- What is a Menu
- What is FormView
- What is LINQ?
- What is MVC Model
- What is the need for a Webservice?

**UNIT I**

- Discuss about the .NET framework with a neat diagram 6M
  - Create an application in ASP.NET that accepts the Username, Password from the user. Also Create a Submit button to handle the event? 6M

**(OR)**

- Explain about the exception handling mechanism in ASP.NET with an example? 6M
  - Discuss about the usage of Session Tracking in state management in ASP.NET 6M

**UNIT II**

- Illustrate with an example the process of validating a control in ASP.NET 6M
  - Discuss about MultiView Control 6M

**(OR)**

- Discuss about Themes in ASP.NET 6M
  - Explain about TreeView Control 6M

**UNIT III**

- Discuss about Direct Data Access with ADO.NET 6M
  - Discuss about GridView control with an example 6M

**(OR)**

- Discuss about Data Binding. 6M
  - Discuss about the LINQ feature in .NET Framework 6M

**UNIT IV**

- Discuss about Internet Information Services for deploying ASP.NET applications 6M
  - Explain the process of building a XML Web Service 6M

**(OR)**

- Explain about the Architecture of MVC 6M
  - Create a Simple Data-Entry Application with the use of Model View controller 6M