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Code: 5G16C

III B.Tech. II Semester Supplementary Examinations July/Aug 2021

Internet of Things
(Common to CSE & IT)

Max. Marks: 70

Time: 3 Hours

Answer all five units by choosing one question from each unit (5 x 14 = 70 Marks)

UNIT-I

1. a) Define Internet of Things? Explain about things/objects in Internet of Things with example? 8M
b) Explain in detail IoT architecture with neat diagram? 6M

OR

2. a) Define RFID? Explain principles of RFID? 7M
b) Discuss various components of RFID system? 7M

UNIT-II

3. a) With neat sketches, demonstrate enterprise IoT stack and its role in designing of IoT applications. 7M
b) Demonstrate Solutions Layer and its roles and responsibility in enterprise IoT stack. 7M

OR

4. Discuss the following in detail 14M
a) IoT security
b) Cognitive Platform Layer
c) Communication Layer
d) Analytics Platform Layer

UNIT-III

5. Explain in detail application areas of IoT in different industry manufacturing domains with example? 14M

OR

6. a) With an example explain the general connectivity pattern which allows devices to communicate to the core platform? 7M
b) Explain about the role of IoT in connected car solutions? 7M

UNIT-IV

7. a) Illustrate Wireless Radio Frequency Identification (RFID) Infrastructure for wireless embedded internet in IoT. 7M
b) Write in detail about ZigBee compact application protocol. 7M

OR

8. a) With neat sketches explain The 6LoWPAN Architecture. 7M
b) Write short note on:
i. 6LoWPAN Format
ii. 6LoWPAN Addressing 7M

UNIT-V

9. a) What are the factors considered when you choosing your platform? 7M
b) Write short note on:
i) Microcontrollers
ii) System-on-chips. 7M

OR

10. a) Discuss Why Arduino is most preferable IoT Kit for many applications justify your answer with example? 7M
b) Create a Program for LED blinking in Arduino IDE? 7M

Hall Ticket Number :

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R-15

Code: 5G469

III B.Tech. II Semester Supplementary Examinations July/August 2021

Unix and Shell Programming

(Information Technology)

Max. Marks: 70

Time: 3 Hours

Answer all five units by choosing one question from each unit (5 x 14 = 70 Marks)

UNIT-I

1. a) Explain structure of UNIX 8M
- b) Discuss the various modes in vi editor with examples 6M

OR

2. a) Write about a UNIX file system 6M
- b) What would be the effect of the following commands?
i) date ii) mkdir xyz iii) ls -la iv) rm myfile 8M

UNIT-II

3. a) write a shell program to count number of lines and spaces in a given file 8M
- b) Discuss about any three filter commands with examples 6M

OR

4. a) What is meant by pipe in UNIX? Explain any two commands with pipe 8M
- b) Define an alias. Which shell(s) support aliases? Can an alias be used to rename a file? If it can, how? 6M

UNIT-III

5. a) Define an atom. Explain about different types of atoms with examples? 6M
- b) Explain, how remote access can be performed in Unix? 8M

OR

6. a) What are various types of editors available in Unix and explain them - 6M
- b) Explain grep command with various options 8M

UNIT-IV

7. a) Give brief description about the variables present in korn shell? 6M
- b) Draw and explain flowchart for korn shell startup process? 8M

OR

8. a) What are various file operators available in KORN shell 6M
- b) write a shell script to Take 3 numbers input and find out largest number 8M

UNIT-V

9. a) Write about features C shell in UNIX 6M
- b) What is an on-off variable? List some of these variables and their use in C Shell? 8M

OR

10. a) Explain how the C Shell executes a command with an example? 8M
- b) Describe mathematical expressions of C Shell Program? 6M

Hall Ticket Number :

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R-15

Code: 5G46A

III B.Tech. II Semester Supplementary Examinations July/Aug 2021

Web Technologies
(Information Technology)

Max. Marks: 70

Time: 3 Hours

Answer all five units by choosing one question from each unit (5 x 14 = 70 Marks)

UNIT-I

1. a) Define table. Explain table attributes and table tags with example.
b) Discuss the various list tags in html.

OR

2. a) Explain the different cascading style sheets with examples.
b) Describe different elements of objects in Java script.

UNIT-II

3. a) Give a brief note on the Java Beans API.
b) List all the classes and interfaces in JavaBeans API.

OR

4. a) Define XML. What are the advantages of XML? Explain.
b) Design an XML schema for hospital information management. Include every feature available with schema.

UNIT-III

5. a) Describe how an HTTP servlet handles its client request
b) Explain the life cycle of a servlet.

OR

6. a) How to use Cookies and session for session tracking? Explain with an example program.
b) Give a brief note on the javax. Servlet Package.

UNIT-IV

7. a) Explain about JSP application designing with MVC.
b) How to use Scripting Elements in JSP? Explain

OR

8. a) Write a JSP program to implement database connectivity.
b) Give a brief note on Anatomy of a JSP Page.

UNIT-V

9. a) Explain about the components of JSP
b) Describe the data sharing process between JSP's.

OR

10. a) List and explain the JSP implicit objects.
b) Write the working procedure for working with XML Data in JSP.
