

Code : 1G463

R11

III B.Tech II Semester Regular & Supplementary Examinations May 2015

***Human Computer Interaction***  
***( Informaiton Technology )***

**Time: 3 hours**

**Max Marks: 70**

*Answer any FIVE of the following*  
*All questions carry equal marks (14 Marks each)*

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- |       |   |     |
|-------|---|-----|
| 1. a) | What is a user interface? What is the importance of user interface?         | 07M |
| b)    | Discuss in detail about importance and benefits of good design?             | 07M |
| 2. a) | What is meant by extranet? How it is different from internet?               | 07M |
| b)    | Distinguish between printed pages and web pages?                            | 07M |
| 3. a) | Explain about user mental model?  | 07M |
| b)    | What are the responses to poor design?                                      | 07M |
| 4. a) | Briefly discuss about the organizing of screen data and content?            | 07M |
| b)    | Explain about design goals?   | 07M |
| 5.    | Briefly discuss about various navigation schemes?                           | 14M |
| 6.    | What is message? Classify message and give a detailed note about a message? | 14M |
| 7.    | Write about interface building tools?                                       | 14M |
| 8.    | Give a detailed note about direct control pointing devices?                 | 14M |

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Code :1G164

R-11

III B.Tech. II Semester Regular Examinations, May 2015

*Object Oriented Analysis and Design*

( Common to CSE & IT)

Max. Marks: 70

Time: 03 Hours

Answer any five questions

All Questions carry equal marks (14 Marks each)

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- 1 a) What are the common mechanisms that apply consistently throughout the language? Explain them in detail. 8M  
b) List and explain the artifacts of the unified modeling language. 6M
2. a) Explain the role of adornments, stereotypes and tagged values in unified modeling language. 9M  
b) How can we model the non-software things? Explain 5M
3. a) What is a package? How can we import and export them. Explain in detail. 7M  
b) With respect to unified modeling language, explain the role of visibility and scope. 7M
4. a) In what way an interaction diagram differs from sequence diagram. Explain with example. 7M  
b) Explain in detail about the sequencing. 7M
5. a) Enumerate the steps to model the behavior of an element. 7M  
b) Explain about the common properties, contents and common uses of a use case diagram. 7M
6. a) Comment on Real time systems are, by their very name, time – critical systems. 7M  
b) Describe the role of synchronization in modeling of a system. 7M
7. a) Write and explain the steps in modeling a physical database. 7M  
b) Discuss in detail about the binary replaceability and standard elements of a components. 7M
8. a) List the various classes involved in typical library management system. Describe what relationship exists between them 9M  
b) Draw the sequence diagram for withdrawing the money from ATM. 5M

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III B.Tech. II Semester Regular Examinations, May 2015

***Software Testing Methodologies***  
( *Information Technology* )

**Max. Marks: 70**

**Time: 03 Hours**

Answer *any five* questions

All Questions carry equal marks (14 Marks each)

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1. a) Compare and contrast Testing and Debugging. 5M  
b) Sketch the model for the testing process and explain how various aspects are considered for testing using this model. 9M
2. a) Explain the proper way to test multi-entry or multi-exit routines. 7M  
b) Explain Heuristics for Sensitizing paths. 7M
3. a) Explain transaction flow usage and implementation with a neat sketch. 7M  
b) Differentiate between static and dynamic anomaly detection. 7M
4. a) Explain how different bugs result in domain errors. 7M  
b) Explain Nice two-dimensional domain and its properties complete and systematic. 7M
5. a) Discuss Path products with relevant examples. 7M  
b) Describe Data-Flow Testing example with appropriate flow-graph. 7M
6. a) Decision Tables as a basis for test case design. Justify. 7M  
b) Draw KV maps for functions of Two variables. 7M
7. a) Define State and explain One-Time ZCZC Sequence Detector state graph. 7M  
b) Define Equivalent state and explain the procedure to identify Equivalent states. 7M
8. Discuss the partition algorithm with a case study and also represent its relation, transitive closure and intersection matrices. 14M

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ANNAMACHARYA INSTITUTE OF TECHNOLOGY & SCIENCES :: RAJAMPET  
(AUTONOMOUS)

III B.Tech II Semester Regular & Supplementary Examinations May 2015

**Web Technologies**  
(Information Technology)

Time: 3 hours

Max Marks: 70

Answer any FIVE of the following  
All questions carry equal marks (14 Marks each)

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1. a) Explain about image-map with an example 6M  
b) Describe the following terms related to HTML Table  
i. cellpadding and spacing    ii. colspan and rowspan  
iii. thead and tfoot    iv. align and valign 8M
2. a) JavaScript is event driven. What are events? What events can JavaScript handle? 8M  
b) Design a page which demonstrates the use of the different types of popup window that are available in JavaScript 6M
3. a) How XML documents are composed? Explain? 8M  
b) Specify the advantages of XML Schemas over DTDs (Document Type Definition) 6M
4. a) Describe the following  
i. Bound Properties    ii. Customizers    iii. Persistense    iv. BeanInfo 8M  
b) How to create and configure an instance of the Molecule Bean in BDK Tool 6M
5. a) What is Servlet? Explain the life cycle of a Servlet. 6M  
b) How to handle HTTP GET and POST requests? Illustrate with an example 8M
6. a) Discuss about JSP Processing. List out the JSP elements 8M  
b) Explain about JSP application design with MVC 6M
- 7 Explain about implicit JSP Objects 14M
8. a) What are the differences between AJAX and PHP 6M  
b) Write about PHP Regular Expressions 8M

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III B.Tech II Semester Regular & Supplementary Examinations May 2015

**Computer Graphics**  
( *Information Technology* )

**Time: 3 hours**

**Max Marks: 70**

*Answer any FIVE of the following  
All questions carry equal marks (14 Marks each)*

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1. a) Discuss the application areas of computer graphics. 7M  
b) Explain Raster-Scan systems in detail. 7M
2. a) What are the steps involved in mid-point circle algorithm. 7M  
b) What is antialiasing? Explain it. 7M
3. a) Explain shear transformation with an example. 7M  
b) Explain composite transformation with an example. 7M
4. a) Explain the stages involved in 2-D viewing pipeline. 7M  
b) Explain the Sutherland-Hodgeman polygon clipping algorithm. 7M
5. a) Discuss Bezier curve and its properties. 7M  
b) Briefly explain polygon rendering methods. 7M
6. a) Explain 3-D rotation transformation with an example. 7M  
b) Explain 3-D Projection. 7M
7. a) Explain how the BSP-tree method is implemented for visible surface detection. 7M  
b) List the common uses of Octree. 7M
8. a) Explain the design of animation sequence. 7M  
b) Briefly Discuss about motion specifications. 7M

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III B.Tech II Semester Regular &amp; Supplementary Examinations May 2015

***Data Warehousing and Mining***  
(*Information Technology*)

Time: 3 hours

Max Marks: 70

*Answer any FIVE of the following*  
*All questions carry equal marks (14 Marks each)*

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|----|---|----|
| 1. | a) Write about the Origin of Data Mining                                    | 7M |
|    | b) <b>Explain the following terminologies</b>                               |    |
|    | i. Data Mining  |    |
|    | ii. Data Quality  |    |
|    | iii. Data Attributes  | 7M |
| 2. | a) Discuss about the similarities between Data Objects                      | 8M |
|    | b) Discuss the following  |    |
|    | i. Cosine Similarity  |    |
|    | ii. Correlation   | 6M |
| 3. | a) How OLAP queries can be done efficiently, explain                        | 7M |
|    | b) Discuss about data cube computation                                      | 7M |
| 4. | a) Write and explain any one algorithm for Decision Tree Induction          | 7M |
|    | b) What is the general approach to solve a classification problems, explain | 7M |
| 5. | <b>Write short notes on</b>   |    |
|    | a) Bayes Theorem  | 7M |
|    | b) Naïve Bayes Classifier   | 7M |
| 6. | a) Write about the Apriori Principle and Algorithm in brief                 | 7M |
|    | b) Write a detail notes on candidate generation and pruning                 | 7M |
| 7. | a) What is Bisecting K-Means, Discuss                                       | 7M |
|    | b) Write and Discuss about K-Means algorithm                                | 7M |
| 8. | <b>Write short notes on</b>   |    |
|    | a) Agglomerative and Divisive Hierarchical Clustering with example          | 7M |
|    | b) DBSCAN Algorithm   | 7M |

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