

Hall Ticket Number :

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**R-11/R-13**

**Code : 1G461**

III B.Tech. II Semester Regular & Supplementary Examinations May 2016

**Computer Graphics**

( 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) Explain about Random-Scan System. 7M  
b) Explain the attributes of SRGP. 7M
2. a) Explain about Mid-Point Circle Drawing Algorithm. 7M  
b) Explain about Scan line Algorithm for Polygon Filling. 7M
3. a) Explain about 2D Composite Transformations. 8M  
b) What is Affine Transformation? Give the examples of Affine Transformation 6M
4. a) What is Line Clipping? Explain Cohen-Sutherland line clipping Algorithm. 7M  
b) Explain about viewing coordinate reference frame. 7M
5. a) Explain about Hermit Curves. 7M  
b) Explain specular reflection in illumination 7M
6. a) Explain about 3D Translation and Rotation transformations 7M  
b) Explain the process of generating a view of a 3D Object. 7M
7. a) Explain about Back-Face Detection Method. 7M  
b) What is the need of Area Subdivision Method explain. 7M
8. a) Define the term Computer Animation. Explain general computer animation functions. 7M  
b) What is Morphing? Explain how it is used in Key Frame Systems. 7M

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<b>R-11/R-13</b>
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**Code : 1G462**

III B.Tech. II Semester Regular & Supplementary Examinations May 2016

***Data Warehousing and Mining***  
( *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) Explain the various types of data attributes 7M  
b) What are the different data mining tasks 7M
2. a) What is the advantage of extended Jaccard coefficient 7M  
b) Narrate the process of computing the Correlation between the data objects 7M
3. a) Explain the Architecture of data ware house with neat diagram 7M  
b) What are the various OLAP operations 7M
4. What is the Role of Entropy in selecting the Best split? Justify with an example 14M
5. Illustrate the Representation of dependency among the variables using Bayesian belief networks 14M
6. Explain the Frequent Item set generation using FP – Growth algorithm 14M
7. a) What are the various types of clusters 7M  
b) Illustrate the additional issues related to K-means algorithm 7M
- 8 a) What is the significance of DBSCAN clustering algorithm 9M  
b) What are the strengths and weaknesses of DBSCAN algorithm 5M

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**R-11 / R-13**

**Code : 1G463**

III B.Tech. II Semester Regular & Supplementary Examinations May 2016

## **Human Computer Interaction**

( *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) Discuss the history of screen design 7M  
b) Compare a 1970's screen, a 1980's screen and a 1990's and beyond screen 7M
  
2. What is meant by a graphical system? Discuss in detail various advantages and disadvantages of graphical systems? 14M
  
3. Explain the various interaction speeds? 14M
  
4. Analyze the organization of screen elements? 14M
  
5. Define the following with respect to the Window 14M
  - a) Menu bar
  - b) Status bar
  - c) Scroll bar
  - d) Tool bar
  - e) Split bar
  - f) Command area
  - g) Work area
  
6. What are the issues to be considered in designing title bar and message box 14M
  
7. Give a brief note about the features of user interface building tools? 14M
  
8. Give a brief note about the following 14M
  - a) Keyboard
  - b) Function Keys

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III B.Tech. II Semester Regular & Supplementary Examinations May 2016

## Software Testing Methodologies

( Information Technology )

Max. Marks: 70

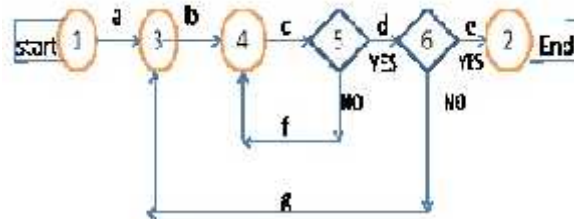
Time: 03 Hours

Answer any five questions

All Questions carry equal marks (14 Marks each)

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1. Why is it impossible for a tester to find all the bugs in a system? Why might it not be necessary for a program to be completely free of defects before it is delivered to its customers? 14M
2. Consider the following flow - graph? Select optimal number of paths to achieve C1+C2 (statement coverage + branch coverage)



3. a) What is meant by transaction flow testing? Discuss its significance 7M  
b) What are the applications of data flow testing 7M
4. a) Discuss in detail about testability of Domains. 7M  
b) Explain various properties related to Ugly-domains. 7M
5. Explain Regular Expressions and Flow Anomaly detection 14M
6. What are decision tables? Illustrate the applications of decision tables. 14M
7. Write testers comments about state graphs 14M
8. What are graph matrices and their applications? 14M

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**R-11/R-13**

**Code : 1G164**

III B.Tech. II Semester Regular & Supplementary Examinations May 2016

**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) Discuss the four basic principles of modeling. 8M  
b) Briefly Explain Diagrams in the UML 6M
2. a) Explain three kinds of relationships. 6M  
b) Discuss structural diagrams. 8M
3. What is the role of class diagram? Develop a library information system using class diagram. 14M
4. a) Draw a sequence diagram for ATM withdrawal. 8M  
b) Explain the differences between sequence diagram and collaboration diagram through an example. 6M
5. a) Explain how Actors are related to use case diagrams. 6M  
b) Define use case diagram and explain its common properties. 8M
6. Write short notes on  
(i) Events and signals  
(ii) processes and threads  
(iii) state diagrams  
(iv) Transition and condition 14M
7. a) Discuss the usefulness of deployment diagram. 7M  
b) Distinguish between three kinds of components. 7M
8. a) Draw deployment and component diagrams for the library system. 10M  
b) Draw a class diagram showing architectural overview of the library system. 4M

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R-11/R-13

**Code : 1G465**

III B.Tech. II Semester Regular & Supplementary Examinations May 2016

**Web Technologies**

( 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) What are the different types of lists in HTML? Explain how these lists are created in HTML with suitable examples. 7M  
b) Explain how a basic table is created using HTML tags with attributes of rowspan and colspan. 7M
2. a) Describe the primitive data types that Javascript uses. 7M  
b) Write a script that reads a mobile no and determines and displays whether it is valid mobile no or not. 7M
3. a) What is XML? Explain the various features of XML. 7M  
b) Design an XML schema for hospital information management. Include every feature available with schema. 7M
4. a) What is a BeanBox? Write about the BeanBox. 7M  
b) Demonstrate with a suitable example the connecting of beans with events in the BeanBox. 7M
5. Explain installation process of tomcat server 14M
6. a) Explain the lifecycle of JSP. 7M  
b) Discuss the JSP standard actions. 7M
7. Create a JSP to check the status of a bus ticket reservation from the server database. Status will be marked with a character- R- Reserved, W-waiting, C-cancelled. 14M
8. a) How to authenticate the user in PHP? Explain about date and time with examples 7M  
b) Briefly Explain Environment Variables. 7M

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