

Code: 9A05503

R09

B. Tech III Year II Semester (R09) Supplementary Examinations, November/December 2012

**COMPUTER GRAPHICS**

(Information Technology)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions  
All questions carry equal marks

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- 1 (a) Describe the architecture of a raster scan display with a clear block diagram.  
(b) Compare and contrast features of plasma panels and LCD devices.
- 2 (a) Compare different circle drawing algorithms.  
(b) Explain about different character generation techniques.
- 3 What is perspective projection? Derive the transformation matrix for perspective projection.
- 4 (a) Elaborate on parameter passing in object hierarchy.  
(b) Discuss the relationship between model, application program and graphics system.
- 5 (a) Explain briefly about super ellipsoid.  
(b) Write a short note on Bezier curves.
- 6 Explain in detail about b-reps.
- 7 (a) Write short notes on halftone patterns.  
(b) Describe RGB color model
- 8 Write a detailed note on illumination models used in computer graphics

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Code: 9A05601

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**OBJECT ORIENTED ANALYSIS & DESIGN**

(Common to CSS, IT & CSS)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions  
All questions carry equal marks

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- 1 Define modeling. Explain about the importance of modeling in detail.
- 2 Define class, object, attribute and operations. Explain with example the organization of attributes and operations using stereo types.
- 3 Explain about the steps involved in modeling to forward engineer a class diagram with examples.
- 4 Explain about flat and procedural sequencing with a diagram.
- 5 (a) What are the contents, common properties and common uses of use case diagrams?  
(b) Enumerate the steps to model the context of a system.
- 6 (a) List and explain various kinds of events in UML.  
(b) Enumerate the steps to model the kinds of exceptions that an object may throw through its operations.
- 7 (a) Enumerate the steps to reverse engineer a deployment diagram.  
(b) Enumerate the steps to model a physical database schema.  
(c) Explain the properties of a component diagram.
- 8 Explain how the extend and include stereotypes of the dependency relation are used with use case diagram for the library system. Give the sequence of steps for drawing the use case diagram.

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Code: 9A05701

III B. Tech II Semester (R09) Supplementary Examinations, November/December 2012

**WEB TECHNOLOGIES**

(Common to IT & CSS)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions  
All questions carry equal marks

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- 1 Explain in detail WAMP web server and its installation procedure.
- 2 (a) Explain the anatomy of a PHP page.  
(b) How it differs from an html page?
- 3 (a) Explain different types of operators in PHP with examples.  
(b) Write a PHP program that removes HTML from the given string.
- 4 (a) What is the need of a destructor in a class? Explain with an example.  
(b) Write a PHP program to create a counter using files.
- 5 (a) What are cookies? What are the advantages of cookies?  
(b) Briefly explain different parameters available when setting a cookie.
- 6 (a) What are the disadvantages of redisplaying forms without previous information and error messages?  
(b) Write a PHP program for redisplaying forms with previous information and error messages.
- 7 How to perform querying the database? Explain with a PHP script.
- 8 (a) How to initialize the XML parser in PHP? Explain with an example.  
(b) What is simpleXML? What are the advantages of simpleXML?

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Code: 9A05706

B. Tech III Year II Semester (R09) Supplementary Examinations, November/December 2012

**DATA WAREHOUSING & DATA MINING**

(Information Technology)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions  
All questions carry equal marks

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- 1 (a) Discuss major issues in data mining.  
(b) Explain preprocess techniques in data mining.
- 2 (a) Differentiate star flake, snow flake, and fact constellation schemes.  
(b) What are typical operations of OLAP?
- 3 Explain different association rules. Explain Apriori algorithm with a suitable example.
- 4 How will you solve a classification problem using Bayesian classification?
- 5 (a) Explain alignment of biological sequence in mining streams.  
(b) Explain graph pattern mining.
- 6 Present condition under which density-based clustering is more suitable than partitioning based clustering and hierarchical clustering. Give examples to support your argument.
- 7 (a) Differentiate between spatial data mining and spatial multivariate mining.  
(b) What are three different web mining techniques? Explain with example.
- 8 (a) What are the privacy, security and social impacts of data mining?  
(b) Write about latest application and trends in data mining.

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Code: 9A05709

R09

III B. Tech II Semester (R09) Supplementary Examinations, November/December 2012

**INFORMATION SECURITY**

(Information Technology)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions  
All questions carry equal marks

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- 1 (a) List the three fundamental security properties and for each give an example of a failure.  
(b) List two purposes for which symmetric encryption are especially appropriate.
- 2 (a) Describe how unexpected behaviour of a program affects security.  
(b) Describe storage patterns, execution patterns and transmission patterns of virus signature.
- 3 (a) Explain the steps for public key encryption.  
(b) Explain the requirement of hash functions.
- 4 What is a digital signature? What are the various approaches for digital signatures? Explain each in detail.
- 5 Clearly explain in detail the multipurpose internet mail extensions.
- 6 (a) Discuss the scope of ESP encryption and authentication in both IPV4 and IPV6.  
(b) Explain about transport adjacency and transport tunnel bundle.
- 7 Describe how brute-force attack and man-in-the-middle attack can be countered by SSL.
- 8 (a) What is a bastion host? List the common characteristics of a bastion host.  
(b) Explain the concept of reference monitor in detail with a neat sketch.

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Code: 9A12601

B. Tech III Year II Semester (R09) Supplementary Examinations, November/December 2012

**LINUX PROGRAMMING**

(Information Technology)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions  
All questions carry equal marks

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- 1 (a) Discuss the process for enabling message communication using network utilities.  
(b) Write a shell script for extracting content from 2<sup>nd</sup> line to 6<sup>th</sup> line from a given file using text processing and explain.  
(c) Construct a function for finding sum of 'n' natural numbers using awk script.
- 2 (a) Explain about a redirection symbol, that takes input from user and process it with an example.  
(b) What interrupts means to shell scripting? How do you control scope for changing values of environment variables?
- 3 (a) Explain how an i-node organizes all file attributes using appropriate kernel system calls.  
(b) Describe the working mechanism for symbolic and hand links. Distinguish between them.
- 4 (a) Explain the changes in execution after a fork( ) system call using suitable code sample.  
(b) Narrate various reasons for generating signals and also mention how to handle them.
- 5 (a) Why do we need IPC techniques? Compare any three IPC techniques.  
(b) Write a client/server program to illustrate the behaviour of message queues.
- 6 Explain Unix system V API for shared memory management with an example.
- 7 (a) List the differences between threads and processes with respect to their structures.  
(b) Write a program to achieve thread synchronization using semaphores.
- 8 Explain the following:  
(a) Socket addresses structure for IPv4.  
(b) Socket system calls for server communication.  
(c) System calls used in connection less protocols with syntax.

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