Hall Ticket Number :										

R-11/R-13

Code : 1G471

IV B.Tech. I Semester Regular & Supplementary Examinations Nov 2016

Multimedia and Application Development

(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.		Describe in detail about the graphics and image data representation data types	14M
2.		Explain in detail about analog video and digital video.	14M
3.		Explain about Inheritance, interfaces and Exceptions.	14M
4.		Explain about Inheritance, interfaces and Exceptions.	14M
5.		Explain briefly about components with ActionScript movie clip subclasses.	14M
6.	a)	Write about Lossy compression algorithm.	7M
	b)	Explain about run length coding and variable length coding.	7M
7.		What is audio compression and explain about video compression techniques.	14M
8.		Write a short note on Multimedia over ATM networks, analog & digital.	14M

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Hall Ticket Number :										

R-11/R-13

Code: 1G473

IV B.Tech. I Semester Regular & Supplementary Examinations Nov 2016

Cryptography and Network Security

(Information Technology)

Max. Marks: 70 Time: 3 Hours

Answer *any* **five** questions.
All Questions carry equal marks (14 Marks each)

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1. a) What is the relationship between security services, security mechanisms and security attacks? Explain the relationship with a table or matrix. 7M
   b) What is the main idea behind model for network security? Explain the model with a neat diagram. 7M

2. What is the difference between diffusion and confusion? Explain how DES algorithm can achieve diffusion and confusion? 14M

3. a) Explain briefly about Kerberos authentication protocol? 10M
   b) Perform encryption and decryption using RSA algorithm for the following
   p=3 ; q=13 ; e=5 ; M=10 4M

4. What are the five principal services provided by PGP? Explain briefly about each service? 14M

5. Explain how authentication header provides support for data integrity and authentication of IP packets? 14M

6. a) Describe SSL Architecture with a neat diagram. 7M
   b) What is the role of dual signature in Secure Electronic Transaction? Explain in detail? 7M

7. a) Discuss briefly about different approaches to intrusion detection? 7M
   b) What are the phases that a virus goes through? Explain in detail? 7M

8. a) List out and explain about the design goals for the firewall. 7M
   b) Explain about different types of firewalls. 7M

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Hall Ticket Number :										

R-11/R-13

Code: 1G477

IV B.Tech. I Semester Regular & Supplementary Examinations November 2016

Soft Computing

(Information Technology)

Max. Marks: 70 Time: 3 Hours

Answer *any **five*** questions
All questions carry equal marks (**14 Marks** each)

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1. "Heuristics can improve the efficiency of search", support the statement with respect to state space search. 14M

2. Explain in detail on the various knowledge representation techniques in detail 14M

3. Explain in detail on the following
   a. Backpropogation Network
   b. Associative Memory Networks 14M

4. a) What is Self-Organizing Feature Map? How is it considered as an unsupervised learning techniques? 7M
   b) Explain in detail on counter propagation networks 7M

5. a) What is a member function, explain with two examples on the same 7M
   b) Explain in detail on Adaptive resonance theory network. 7M

6. Explain the various steps involved in solving problems using fuzzy logic, discuss on fuzzification in detail. 14M

7. a) Explain the principles on formulation of Fuzzy rule base 7M
   b) What is approximate reasoning and how it is applied to problem solving in general 7M

8. Discuss in detail on genetic algorithms and its application to a specific problem of your choice 14M

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Hall Ticket Number :										

R-11/R-13

Code: 1G474

IV B.Tech. I Semester Regular & Supplementary Examinations Nov 2016

Software Process and Project Management

(Information Technology)

Max. Marks: 70 Time: 3 Hours

Answer *any* ***five*** questions
All Questions carry equal marks (**14 Marks** each)

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1.		List and Explain why Conventional Software Management does not perform satisfactorily mention the Boehm's top 10 reasons	14M
2.	a)	Compare waterfall process and interactive process with neat diagram?	7M
	b)	Classify the important Trends in improving Software Economics along with Cost model parameters	7M
3.	a)	Describe Pragmatic Software Cost Estimation Process	7M
	b)	Summaries some dimensions of Quality improvement in Software Economics	7M
4.	a)	Illustrate the typical Software development plan outline	7M
	b)	Explain actual resource expenditure versus planned expenditures acceptable in transition phase?	7M
5.	a)	Describe iteration planning process?	7M
	b)	Summaries the artifacts of the design set in Model based architecture , including the architecture view & architecture description	7M
6.	a)	Describe the evaluation of planning fidelity in the WBS overs the life cycle.	4M
	b)	Explain Cost and Schedule estimation Process in Planning	10M
7.	a)	Discuss the seven top-level Workflows in the Lifecycle	7M
	b)	What is the need for metrics and their purpose and perspectives	7M
8.	a)	What are the purpose of the concept definition (CD) and full scale development (FSD) in project CCPDS-R?	7M
	b)	Compare and construct schedule discrimination for Small scale project versus large scale project	7M

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Hall Ticket Number :										

R-13 / R-11

Code: 1G472

IV B.Tech. I Semester Regular & Supplementary Examinations November 2016

Mobile Communications

(Common to CSE & IT)

Max. Marks: 70 Time: 3 Hours

Answer *any* **five** questions
All questions carry equal marks (**14Marks** each)
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1.	a)	Explain the security services of GSM	7M
	b)	What is the advantages of GPRS over GSM? Also explain the architecture of GPRS.	7M
2.	a)	Explain clearly the various schemes for medium access control with TDMA.	7M
	b)	What is CDMA? Explain about FDMA,TDMA mechanisms.	7M
3.	a)	Write a detailed note on Mobile IP protocol	6M
	b)	Briefly explain DHCP client initialization procedure.	8M
4.	a)	Discuss in detail about Snooping TCP, its advantages and disadvantages.	7M
	b)	Write brief note on Fast Retransmit/Fast Recovery.	7M
5.	a)	Discuss the properties of MANETS?	6M
	b)	How routing is done in MANETS? Briefly describe various routing algorithms?	8M
6.	a)	Explain WAP model and WAP Gateway in detail.	8M
	b)	Describe about Bluetooth user scenarios	6M
7.	a)	Illustrate power-aware and context-aware computing?	7M
	b)	Explain Recovery and quality of service issues in terms database.	7M
8.	a)	Define communication symmetry? Explain with suitable examples?	7M
	b)	Differentiate between push-based and pull-based mechanisms?	7M

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Hall Ticket Number :										

R-11/R-13

Code: 1G177

IV B.Tech. I Semester Regular & Supplementary Examinations November 2016

Network Programming

(Information Technology)

Max. Marks: 70 Time: 3 Hours

Answer any ***five*** questions
All Questions carry equal marks (14 Marks each)
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1. a) List the well-known ports, registered ports and private ports? 7M
   b) Describe about client/server communication using TCP on the same Ethernet? 7M

2. a) Compare fork() with exec()? 6M
   b) List the functions in inet / in.h using for converting between network byte ordering and host byte ordering? 8M

3. a) State the steps involved in normal termination of client server? 7M
   b) Compare wait() with waitpid()? 7M

4. a) Explain about poll() function? 7M
   b) Why would an application call shutdown with an argument of SHUT_RDWR instead of just calling close()? 7M

5. a) What are the two functions used in UDP client/server to perform read and write? 7M
   b) Discuss the mechanism that can be used to prevent the lost datagrams in UDP socket? 7M

6. a) Explain the gethostbyname() function? 7M
   b) Explain the getaddrinfo() function? 7M

7. a) Give the kernel support for semaphores? 7M
   b) Develop a C program to implement client/server communication using pipes? 7M

8. a) How to open a pseudo terminal? 7M
   b) Write about client_create() function? 7M

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