R-11

Code : 1G474

IV B.Tech. I Semester Regular Examinations Nov/Dec 2014

Software Process and Project Management

(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) How to develop waterfall model step by step procedure
   b) How do you estimate a project?
   c) What are the metrics followed in project management?

2. a) What are the steps to be taken to improve team effectiveness?
   b) Compare waterfall process and interactive process with neat diagram?
   c) Describe Modern process approaches for solving conventional problems?

3. a) Explain actual resource expenditure versus planned expenditures acceptable in transition phase?
   b) Explain with neat diagram for Artifacts sets?
   c) Explain implementation set versus deployment set?

4. a) Explain the workflow of an iteration?
   b) Explain the layered architecture?

5. a) Explain Life-Cycle architecture Milestone?
   b) Describe iteration planning process?

6. a) Explain project organization and responsibilities?
   b) Explain software project team evolution with life cycle?

7. a) Explain Pragmatic software Metrics?
   b) Explain the process instrumentation?

8. a) Explain software management principles?
   b) Explain software estimation over a project life-cycle?

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Code : 1G473

R-11

IV B.Tech. I Semester Regular Examinations Nov/Dec 2014

Cryptography and Network Security

(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)	Define Security Service? Describe the various Security Services.	7 M
	b)	Explain TCP session Hijacking.	7 M
2.	a)	Write various cipher block modes of operation.	7 M
	b)	Describe HMAC with Examples	7 M
3.	a)	Illustrate Diffie-hellman key exchange scheme with example.	7 M
	b)	List principles and requirements of public-key cryptography.	7 M
4.	a)	Explain PGP message generation and message reception.	7 M
	b)	Explain S/MIME certificate processing.	7 M
5.	a)	Distinguish SA parameters and SA selectors in IPSec.	7 M
	b)	Write ESP protocol in detail.	7 M
6.	a)	What protocols comprise SSL? Explain each.	7 M
	b)	Mention Web Security Requirements	7 M
7.	a)	Describe SNMP Architecture.	7 M
	b)	Discuss in detail four generations of Antivirus Software.	7 M
8.	a)	List different types of Firewalls? Explain each type with neat diagrams.	7 M
	b)	Explain Intrusion Detection Systems with examples	7 M

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IV B.Tech. I Semester Regular Examinations Nov/Dec 2014

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.	a)	Define and differentiate multimedia and hyper media. And write short notes on 24-Bit Color images and 8-Bit Color images.	7M
	b)	Describe different color models in images.	7M
2.	a)	Describe about Analog video	7M
	b)	Explain about MIDI	7M
3.	a)	What are the different action script features?	7M
	b)	Explain different data types.	7M
4.		Explain briefly about: (i) Subclass (ii) Interfaces (iii) Packages (iv) Exceptions.	14M
5.		Explain the handling of component events in action script, with example.	14M
6.	a)	Write brief note on: (i). Variable-length coding (ii). Huffman Coding	7M
	b)	Explain in detail Transform coding.	7M
7.		Explain briefly about: (i) ADPCM (ii) VOCODERS (iii) CELP (iv) MPEG AUDIO	14M
8.	a)	Describe about Multimedia Over IP	7M
	b)	Describe about Multimedia Over ATM Networks.	7M

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Code : 1G472

R-11

IV B.Tech. I Semester Regular Examinations Nov/Dec 2014

Mobile Communications

(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)	Distinguish mobile terminated call and mobile originated call.	7M
	b)	Write about new data services in GSM.	7M
2.	a)	How MACA can avoid hidden terminal? Explain.	6M
	b)	Explain in detail about CDMA.	8M
3.	a)	Discuss about entities in Mobile IP.	6M
	b)	Give a brief note on registration request and write the registration reply codes.	8M
4.		Explain in detail about classical TCP improvements.	14M
5.	a)	List the differences between wired networks and ad-hoc wireless networks.	7M
	b)	Discuss about Security in MANETS.	7M
6.	a)	Explain about Bluetooth MAC layer and Security.	7M
	b)	How J2ME used in Wireless Application Protocol.	7M
7.	a)	Write a short note on power-aware and context-aware computing.	7M
	b)	Explain Query processing Mechanism in Mobile Communications.	7M
8	a)	What are the disadvantages of push based mechanism.	5M
	b)	Explain various Indexing Techniques in data dissemination.	9M

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Code : 1G177

R-11

IV B.Tech. I Semester Regular Examinations Nov/Dec 2014

Network Programming

(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 in details about layers in OSI model.	7M
	b)	Explain in detail about TCP and UDP.	7M
2.	a)	Give in detail about Socket address structure.	6M
	b)	What is a TCP socket? Explain detail about elementary TCP sockets.	8M
3.	a)	Get in detail about TCP echo server.	7M
	b)	Explain about crashing and rebooting of server host shutdown of server host.	7M
4.	a)	Discuss different I/O models in details.	7M
	b)	Describe in detail about shutdown function and pool function.	7M
5.	a)	Discuss in detail about UDP Echo client-server program.	7M
	b)	Write about determining outgoing interface with UDP.	7M
6.	a)	Describe in detail about DNS.	7M
	b)	What is the need of resolver option? and explain in detail about resolver option.	7M
7.	a)	Write in detail about file and record locking.	7M
	b)	What is the need for semaphores & explain about semaphores.	7M
8.	a)	Explain about terminal line disciplines.	7M
	b)	Write about RPC transparency issues.	7M

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Code : 1G477

R-11

IV B.Tech. I Semester Regular Examinations Nov/Dec 2014

Soft Computing

(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.		Explain AO* algorithm with an example. What is the significance of Hill Climbing?	14M
2.		Explain constraint satisfaction with the help of the following a crypt arithmetic problem. SEND + MORE = MONEY	14M
3.	a)	What are the supervised learning networks? Discuss in detail about BAM and Hopfield networks.	8M
	b)	What are Associate training networks? Explain them.	6M
4.	a)	Discuss the issues in Boltzmann learning.	8M
	b)	What is adaptive vector quantization and learning vector quantization?	6M
5.	a)	Explain the characteristics of ART.	6M
	b)	Explain the ART training algorithm.	8M
6.	a)	Discuss about Fuzzification and Defuzzification.	8M
	b)	Explain the equivalence fuzzy relation with suitable example.	6M
7.		Discuss about fuzzy measures and fuzzy rule base.	14M
8.	a)	Explain the Genetic algorithm and Internet search techniques.	10M
	b)	Write a short note on crossover algorithms.	4M

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