III Semester M.Sc. (I.T.) Examination, Dec. 2009/Jan. 2010 SOFTWARE PROJECT MANAGEMENT (Repeater)

Time : 3 Hours

Max. Marks: 75

 $(12 \times 2 + 1 \times 1 = 25)$

PART – A

- 1. What is metrics ?
- 2. Briefly explain decomposition technique.
- 3. How do you measure effort and time required using COCOMO model?
- 4. What is risk management ?
- 5. List different scheduling methods.
- 6. Differentiate PERT and CPM.
- 7. How does centralized team organisation function?
- 8. Write any two decomposition technique.
- 9. What is the advantage of decision tree ? Write an example.
- 10. Write the duties of chief programmer.
- 11. What do you mean by product correctness ?
- 12. List the applications of Gantt Chart.
- 13. Write any two objectives of software project management.

PART - B

Answer any five :

- 1. a) How do you measure software ? Explain.
 - b) Briefly explain Halsteads software science.
- 2. Briefly explain size oriented metrics and function oriented metrics. Write its advantages.
- 3. Differentiate empirical estimation model and COCOMO model.
- 4. Write a detailed note on risk analysis.
- 5. Explain Task parallelism and effort distribution
- 6. Discuss different types of project tracking systems.
- 7. a) Briefly explain software acquisition.
 - b) Software re-engineering is a important task in project management. Justify.
- 8. Schedule a project plan and briefly explain it.

III Semester M.Sc. (I.T.) Examination, December 2009/January 2010 DATA WAREHOUSING AND DATA MINING (Repeaters)

Time: 3 Hours

Max. Marks: 75

Instruction : Answer all questions from Part A, and answer any five questions from Part B.

- 1. Why data mart is required in data warehouse ?
- 2. Explain types of data warehouses.
- 3. What is a managed query environment?
- 4. What extract from the data mining ? Why ?
- 5. Explain the two main methods of information extraction.
- 6. What is rule induction ?
- 7. What are steps of a KDD process ?
- 8. Why statistics plays an important role primarily in data selection and sampling?
- 9. Explain ministry of commerce in Indian warehouses.
- 10. What is web usage mining?
- 11. Explain the following :
 - a) MOLAP
 - b) DSS
 - c) Generic algorithm
 - d) Automatic search
 - e) Resource discovery.

PART - B

Answer any five :

- $(5 \times 10 = 50)$
- 1. What is a data warehouse ? Comparison between data warehouse and database system.
- 2. Explain star schema for multidimensional view.
- 3. Explain when we go for data warehouse and list the basic strategy for a data warehouse.
- 4. Explain the different steps of a KDD process.
- 5. Explain the process of data warehouse design.
- 6. Explain the role of access tool. Write an algorithm for data warehouse implementation.
- 7. Explain the application of data mining.
- 8. What is a clustering and segmentation explain with an example.

III Semester M.Sc. (I.T.) Examination, Dec. 2009/Jan. 2010 E - COMMERCE (Repeater)

Time : 3 Hours

Max. Marks: 75

Instruction : Answer **all** questions from Part **A**, and answer **any five** questions from Part **B**.

PART – A

- 1. What is Electronic data Interchange?
- 2. What are Sniffer programs ?
- 3. What is Copyright ?
- 4. What is Privacy ?
- 5. What is Cyber vandalisum ?
- 6. What is Public-key encryption ?
- 7. What is Rational binding ?
- 8. What is Logical security ?
- 9. What is Smartcards ?
- 10. What is meant by Double spending ?
- 11. Explain the following :
 - a) CRLs
 - b) CCAS
 - c) SET
 - d) CCA
 - e) EFT

 $(10 \times 2 + 5 \times 1 = 25)$

Answer any five :

- 1. Define internet. Explain the goals of internet.
- 2. What are the advantages of using e-commerce over the traditional one ? Explain briefly.
- 3. What are the necessary transactional steps followed in establishing B2B e-commerce ?
- 4. Explain copyright and intellectual property rights. What are electronic commerce threats ?
- 5. Explain the Secure sockets layer Protocol.
- 6. What is Encryption ? Explain data encryption.
- 7. Explain working of procedure of Electronic cash.
- 8. Explain how a web site can help firms to identify and reach out to customers.

III Semester M.Sc. (IT) Examination, Dec. 2009/Jan. 2010 MULTIMEDIA COMPUTING (Repeaters)

Time : 3 Hours

Max. Marks: 75

Instruction : Answer all the questions from Part -A, answer any five questions from Part -B.

PART – A (12×2+1×1=25)

- 1. List the application where medium is classified.
- 2. What is OCR ? How it is useful ?
- 3. What is an Image ? How it is represented ?
- 4. What is hypermedia and hypertext?
- 5. What is MPEG and JPEG?
- 6. What is FDDI?
- 7. List the design goals of multimedia system.
- 8. What are the requirements of Network layer?
- 9. What do you mean by collaborative computing ?
- 10. What are the components of resources ?
- 11. List characteristics of continuous data.
- 12. Which storage devices are suitable for multimedia file system ?
- 13. What is RTP?

(5×10=50)

- 1. Explain why digital representation is used in multimedia information?
- 2. Explain multimedia hardware requirement with neat diagram.
- 3. How data is compressed using JPEG and video encoding using MPEG ? Explain.
- 4. Write a note on :
 - i) An analog video system
 - ii) A digital video system.
- 5. List and explain functions of Transport layer and Session layer.
- 6. Briefly explain the additional operating system issues.
- 7. What are the two approaches of multimedia file system ? Explain.
- 8. Briefly explain file structure and directory structure.

III Semester M.Sc. (I.T.) Examination, Dec. 2009/Jan. 2010 CLIENT SERVER COMPUTING (Repeaters)

Time: 3 Hours

Max. Marks: 75

 $(10 \times 2 + 5 \times 1 = 25)$

Instruction : Answer all questions from Part A, and answer any five questions from Part B.

PART – A

Answer all the questions :

- 1. What is client/server?
- 2. What is a file server ?
- 3. What is a groupware server ? Give example.
- 4. List middleware functions.
- 5. Define fat server and fat clients.
- 6. What is a semaphone ?
- 7. What is Netware 4.1 ?
- 8. What is NetBIOS ?
- 9. What is MOM middleware ?
- 10. What is an API?
- 11. Explain the following briefly :
 - a) IPC
 - b) CMA
 - c) APPN
 - d) CPI-C
 - e) CORBA.

P.T.O.

PART – B (5×10=50)

- 1. Explain the characteristics of client/server systems.
- 2. Distinguish between 2-tier and 3-tier client architecture.
- 3. What are the technologies required to make intergalactic client/server model a more realistic ?
- 4. Explain the requirements of the server from an operating systems.
- 5. Explain the functionalities of a multiprocessing super servers.
- 6. Write a descriptive comparison between GUI with OOUI.
- 7. Explain the concept of global directory service.
- 8. Explain the different OS structures available for developing client/server applications.

III Semester M.Sc. (I.T.) Examination, December 2009/January 2010 INTERNET PROGRAMMING (Repeater)

Time : 3 Hours

Max. Marks: 75

Instruction : Answer all questions from Part A, and answer any five questions from Part B.

PART – A (10×2+5×1=25)

- 1. What is Router ?
- 2. What is an ICMP ?
- 3. Why IP datagram fragmentation is necessary ?
- 4. Explain UDP.
- 5. Write any two features of TCP.
- 6. What is DNS ?
- 7. Explain the system call bind ().
- 8. Define autonomous system.
- 9. What is AS path ?
- 10. What is the advantage of router ?
- 11. Briefly explain the following :
 - a) TTL
 - b) ICMP Header
 - c) TCB
 - d) Connect ()
 - e) Autonomous Systems (AS).

Answer any five :

- 1. With a suitable block diagram explain the TCP/IP model.
- 2. Explain the working of ICMP.
- 3. Explain the socket based communication concept.
- 4. Explain Select () Synchronous I/O multiplexing.
- 5. Explain the working of OSPF.
- 6. Explain the concept of IPv6 addressing and notation.
- 7. What is Client-Server Paradigm ? What are the characteristics of Client and Server ?
- 8. Explain the following :
 - i) listen ().
 - ii) accept ().

III Semester M.Sc. (I.T.) Examination, Dec. 2009/Jan. 2010 MOBILE COMPUTING (Repeaters)

Time: 3 Hours

Max. Marks: 75

Instructions : Answer all questions from Part A, and answer any five questions from Part B.

PART – A	$(10 \times 2 + 5 \times 1 = 25)$
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- 1. What is Mobility ?
- 2. Mention any two Mobile Computing Challenges.
- 3. What are the applications of Satellite Microwave?
- 4. Explain Time Division Multiplexing.
- 5. What are Cells and Clusters ?
- 6. Explain MSUs.
- 7. What is a wireless LAN?
- 8. What is Bluetooth ?
- 9. Explain WML script.
- 10. Explain WAP Gateway.
- 11. Expand the following :
 - a) BSS
 - b) GMSC
 - c) CDMA
 - d) MTSO
 - e) MACA.

Answer any five :

(5×10=50)

- 1. Explain Dynamic Client Server Model and Mobile Agent Model.
- 2. Explain different types of Digital modulation.
- 3. Discuss various wireless communication access techniques.
- 4. Explain GSM Network elements.
- 5. Explain GSM subscriber services with its supplementary services.
- 6. Explain Bluetooth Core protocols.
- 7. Explain IEEE 802.11 system.
- 8. Explain the WAP protocol stack.

III Semester M.Sc. (I.T.) Examination, December 2009/January 2010 PATTERN RECOGNITION (Repeater)

Time : 3 Hours

Max. Marks: 75

Instruction : Answer all questions from Part – A and answer any five questions from Part – B.

PART – A $(10 \times 2 + 5 \times 1 = 25)$

- 1. Define the term Pattern Recognition.
- 2. What is preprocessing ?
- 3. What is parameter estimation ?
- 4. Indicate the necessity of parameter estimation using Bayesian approach.
- 5. What is image processing ?
- 6. Mention the features of Nonparametric methods.
- 7. What are the assumptions made in unsupervised learning ?
- 8. Write the area of use of cluster analysis.
- 9. What is Hierarchical Clustering?
- 10. Mention the types of Divisive Method.
- 11. Briefly explain the following :
 - a) Sampling
 - b) Segmentation
 - c) Image averaging
 - d) Isodata
 - e) Dynamic Clustering.

Answer any five :

 $(5 \times 10 = 50)$

- 1. With the help of neat labeled diagram explain different components of Pattern Recognition System.
- 2. What is meant by Machine Perception ? Describe with an example.
- 3. Explain Bayesian Decision theory with an example.
- 4. What is a discriminant function ? Explain two methods of writing discriminant functions.
- 5. Distinguish between parametric and non-parametric techniques used in Pattern Recognition.
- 6. Describe the nearest neighbor and k-nearest neighbor rules useful in nonparametric techniques.
- 7. Differentiate supervised and unsupervised Bayesian Learning.
- 8. How do you compute binary distance ? Explain an example.
