Code No. 6404 / N

FACULTY OF ENGINEERING

B.E. 4/4 (Common to All) I-Semester (New) (Main) Examination, December 2013

Subject : Entrepreneurship
(Electives - I)

Time : 3 Hours **Max. Marks: 75**

Note: Answer all questions of Part - A and answer any five questions from Part-B.

PART – A (25 Marks)

1. What is meant by intrapreneur? How in an intrapreneur different from an entrepreneur?
2. Give different concepts of entrepreneurs.
3. State the significance of collaborative interaction for technology development.
4. What do you understand by marketing mix?
5. Define a project report.
6. Distinguish between PERT and CPM.
7. What is working capital?
8. What is selective control of inventory ? Why is it needed?
9. How is a project formulated?
10. What is microenterprise?

PART – B (50 Marks)

11. Explain linkages between small, medium and large industries.

12. (a) Explain about first generation entrepreneur.
    (b) Explain about women entrepreneur.

13. (a) Write an essay on the growth of entrepreneurship in India.
    (b) How are Competence, Opportunities and Challenges related to each other?

14. What do you understand by project identification? Discuss with examples, the process involved in project identification.

15. (a) How is a project formulated? Give an overview.
    (b) What do you understand by project appraisal ? Why it is done?

16. (a) What are various factors motivating people to become entrepreneurs?
    (b) Discuss the advantages and limitations of PERT and CPM with suitable examples.

17. Write short notes on the following:
    (a) Technical Feasibility
    (b) Market Assessment
    (c) Working Capital

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Estelar

Code No. 6173 / O

FACULTY OF ENGINEERING

B.E. 4/4 I – Semester (Old) Examination, December 2013

Subject: Entrepreneurship (Elective – I)

Time: 3 Hours **Max.Marks: 75**

Note: Answer all questions from Part A. Answer any five questions from Part B.

PART – A (25 Marks)

1. Enumerate at least three advantages of SSI units over large units.
2. List the advantages and disadvantages of Private Limited Company over 'Sole Trader'.
3. Explain the factors to be considered while deciding on the choice of technology.
4. What is break-even analysis? Explain its use in financial analysis of a project.
5. What are the sources of short-term funds?
6. How do you carry out business opportunity survey?
7. When do you use PERT? Give two examples.
8. Explain any two qualities of Leadership.
9. Describe the need for achievement, need for affiliation and need for power.
10. What is working capital? How do you estimate if?

PART – B (50 Marks)

11.(a) Define leadership. Justify the statement "The essence of leadership is followership".
(b) What are the theories of leadership? Explain.

12. What Time Management Techniques are available that ensure a project being completed on time.

13.(a) Bring out the relationship between economic growth and entrepreneurship.
(b) What is CPM? Explain its use in planning a project execution for a SSI.

14.(a) What are the risks faced and rewards gained by entrepreneurs while setting up a SSI?
(b) What is business opportunity survey? Explain how do you carryout the same.

15.(a) What are the problems and risks faced by women entrepreneurs?
(b) What is margin money? What are the sources of finance for starting a SSI?

16. What are the issues considered in Technical and Financial analysis of a project? Explain how you will carryout the same.

17. For any project known to you, show a detailed project report.

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Estelar

Code No. 6463 / N

FACULTY OF ENGINEERING

B.E. 4/4 (CSE) I – Semester (New) (Main) Examination, December 2013

Subject: Image Processing (Elective – I)

Time: 3 Hours **Max.Marks: 75**

Note: Answer all questions from Part A. Answer any five questions from Part B.

PART – A (25 Marks)

1. What are the functions of rods and cons? (2)
2. Define the sampling and Quantisation. (3)
3. Draw the Fourier transform of a box function described. (3)

   $f(t) = A \ldots. \; -w/2 \leq t \leq w/2$

   $= 0$ elsewhere.
4. Write the sampling theorem. (2)
5. Justify that Laplacian operator does edge enhancement. (3)
6. What is a Histogram? (2)
7. Describe the types of data redundancies that can be identified in an image. (3)
8. How the loss of information is quantified in image compression. (2)
9. What are primary colors? Why are they so called? (2)
10. Explain any three noise modes. (3)

PART – B (50 Marks)

11.(a) List out the basic components of image processing system. (5)
   (b) Explain elements of visual perception. (5)

12.(a) Explain filters used image smoothing in frequency domain. (6)
   (b) Define aliasing. (4)

13. Explain histogram equalization with example. (10)

14.(a) Explain global thresholding method of image segmentation. (5)
   (b) Explain high boost filtering. (5)

15.(a) Explain Huffman coding of image compression with example. (5)
   (b) Explain image compression model with diagram. (5)

16. Explain image degradation and restoration process with diagram. (10)

17. Write short notes on any two. (5+5)
   a) MSI color model
   b) Golomb coding for image compression
   c) Image acquisition.

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Estelar

Code No. 6463 / N

FACULTY OF ENGINEERING

B.E. 4/4 (CSE) I – Semester (New) (Main) Examination, December 2013

Subject: Image Processing (Elective – I)

Time: 3 Hours **Max.Marks: 75**

Note: Answer all questions from Part A. Answer any five questions from Part B.

PART – A (25 Marks)

1. What are the functions of rods and cons? (2)
2. Define the sampling and Quantisation. (3)
3. Draw the Fourier transform of a box function described. (3)

   $f(t) = A \ldots. \; -w/2 \leq t \leq w/2$

   $= 0$ elsewhere.
4. Write the sampling theorem. (2)
5. Justify that Laplacian operator does edge enhancement. (3)
6. What is a Histogram? (2)
7. Describe the types of data redundancies that can be identified in an image. (3)
8. How the loss of information is quantified in image compression. (2)
9. What are primary colors? Why are they so called? (2)
10. Explain any three noise modes. (3)

PART – B (50 Marks)

11.(a) List out the basic components of image processing system. (5)
   (b) Explain elements of visual perception. (5)

12.(a) Explain filters used image smoothing in frequency domain. (6)
   (b) Define aliasing. (4)

13. Explain histogram equalization with example. (10)

14.(a) Explain global thresholding method of image segmentation. (5)
   (b) Explain high boost filtering. (5)

15.(a) Explain Huffman coding of image compression with example. (5)
   (b) Explain image compression model with diagram. (5)

16. Explain image degradation and restoration process with diagram. (10)

17. Write short notes on any two. (5+5)
   a) MSI color model
   b) Golomb coding for image compression
   c) Image acquisition.

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Estelar

Code No. 6219 / 0

FACULTY OF ENGINEERING

B.E. 4/4 (CSE) I – Semester (Old) Examination, December 2013

Subject: Image Processing (Elective – I)

Time: 3 Hours **Max.Marks: 75**

Note: Answer all questions from Part A. Answer any five questions from Part B.

PART – A (25 Marks)

1. Define sampling and quantization. (2)
2. Write about zooming and shrinking digital images. (3)
3. Give any two applications of 2D Fourier transform. (2)
4. Briefly explain discrete cosine transform. (3)
5. Explain thresholding. (3)
6. Distinguish between image smoothing and image sharpening filters. (2)
7. Explain Robert's operator. (3)
8. What is fidelity criteria? (2)
9. Write the transfer function for inverse filter. What are its advantages and disadvantages? (3)
10. Explain interpixel and psychovisual redundancies used for compression of monochrome images. (2)

PART – B (50 Marks)

11.(a) Explain about the representation of digital image. (6)

(b) Define brightness and contrast. (4)

12. Explain about Hadamard transform. What are its advantages? (10)

13. Differentiate between point, line and edge detection. (10)

14.(a) Write about error free compression. Explain in detail. (6)

(b) Explain with a suitable example for obtaining a binary code using Huffman coding. (4)

15. Discuss about the model of image degradation / restoration process. (10)

16. Explain about histogram modification method. (10)

17. Explain the elements of digital image processing system along with a block diagram. (10)

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Estelar

Code No. 6219 / 0

FACULTY OF ENGINEERING

B.E. 4/4 (CSE) I – Semester (Old) Examination, December 2013

Subject: Image Processing (Elective – I)

Time: 3 Hours **Max.Marks: 75**

Note: Answer all questions from Part A. Answer any five questions from Part B.

PART – A (25 Marks)

1. Define sampling and quantization. (2)
2. Write about zooming and shrinking digital images. (3)
3. Give any two applications of 2D Fourier transform. (2)
4. Briefly explain discrete cosine transform. (3)
5. Explain thresholding. (3)
6. Distinguish between image smoothing and image sharpening filters. (2)
7. Explain Robert's operator. (3)
8. What is fidelity criteria? (2)
9. Write the transfer function for inverse filter. What are its advantages and disadvantages? (3)
10. Explain interpixel and psychovisual redundancies used for compression of monochrome images. (2)

PART – B (50 Marks)

11.(a) Explain about the representation of digital image. (6)

(b) Define brightness and contrast. (4)

12. Explain about Hadamard transform. What are its advantages? (10)

13. Differentiate between point, line and edge detection. (10)

14.(a) Write about error free compression. Explain in detail. (6)

(b) Explain with a suitable example for obtaining a binary code using Huffman coding. (4)

15. Discuss about the model of image degradation / restoration process. (10)

16. Explain about histogram modification method. (10)

17. Explain the elements of digital image processing system along with a block diagram. (10)

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Estelar

Code No. 6468 / N

FACULTY OF ENGINEERING

B.E. 4/4 (CSE) I – Semester (New) (Main) Examination, December 2013

Subject: Real Time Systems (Elective – I)

Time: 3 Hours **Max.Marks: 75**

Note: Answer all questions from Part A. Answer any five questions from Part B.

PART – A (25 Marks)

1.	Define Real Time Systems.	(2)
2.	Define Job, Task.	(2)
3.	What are hard and soft timing constraints?	(2)
4.	Differentiate between dynamic and static systems.	(3)
5.	What is clock driven approach?	(3)
6.	What is meant by fixed priority algorithm?	(3)
7.	What is deferrable server?	(2)
8.	Define resource access control protocol.	(2)
9.	Differentiate between priority inheritance and priority ceiling protocols.	(3)
10.	List out five major states of a thread.	(3)

PART – B (50 Marks)

11.	Write the characteristics of real time systems.	(10)
12.	Explain Aperiodic Scheduling in priority driven systems.	(10)
13.	Explain priority driven scheduling.	(10)
14.	Explain priority ceiling protocol.	(10)
15.	Explain the concept of concurrent access to data objects.	(10)
16.	Explain open system architecture.	(10)
17.	Explain RT Linux in detail.	(10)

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Estelar

Code No. 6468 / N

FACULTY OF ENGINEERING

B.E. 4/4 (CSE) I – Semester (New) (Main) Examination, December 2013

Subject: Real Time Systems (Elective – I)

Time: 3 Hours **Max.Marks: 75**

Note: Answer all questions from Part A. Answer any five questions from Part B.

PART – A (25 Marks)

1.	Define Real Time Systems.	(2)
2.	Define Job, Task.	(2)
3.	What are hard and soft timing constraints?	(2)
4.	Differentiate between dynamic and static systems.	(3)
5.	What is clock driven approach?	(3)
6.	What is meant by fixed priority algorithm?	(3)
7.	What is deferrable server?	(2)
8.	Define resource access control protocol.	(2)
9.	Differentiate between priority inheritance and priority ceiling protocols.	(3)
10.	List out five major states of a thread.	(3)

PART – B (50 Marks)

11.	Write the characteristics of real time systems.	(10)
12.	Explain Aperiodic Scheduling in priority driven systems.	(10)
13.	Explain priority driven scheduling.	(10)
14.	Explain priority ceiling protocol.	(10)
15.	Explain the concept of concurrent access to data objects.	(10)
16.	Explain open system architecture.	(10)
17.	Explain RT Linux in detail.	(10)

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Estelar

Code No. 6220 / 0

FACULTY OF ENGINEERING

B.E. 4/4 (CSE) I – Semester (Old) Examination, December 2013

Subject: Information Security (Elective – I)

Time: 3 Hours **Max.Marks: 75**

Note: Answer all questions from Part A. Answer any five questions from Part B.

PART – A (25 Marks)

1. What are the three types of data ownership?
2. Draw the 3-D NSTISSC model of security and discuss briefly.
3. How is a policy different from a law?
4. What is Finger printing?
5. What is a timing attack?
6. What constitutes a security perimeter?
7. What is the operating principle of a Message Authentication Code?
8. In the context of a cipher, discuss confusion and diffusion?
9. What is a negative feedback loop?
10. What are the requirements of a digital signature?

PART – B (50 Marks)

11. Discuss in detail the different characteristics of information from the information security point of view.

12. List and describe briefly all the different types of attacks on information systems.

13.(a) What is a VPN? Differentiate between tunnel mode and transport mode.

(b) Discuss in detail the different Fire Wall architectures.

14.(a) Explain how the weighted factor analysis worksheet is used in prioritizing assets.

(b) Given that an asset has a value of 100 and has one vulnerability with a likelihood of 0.5 with current control that addresses 40% of its risk, find the risk value. Assume that the data are 80% accurate.

15.(a) Write briefly about the different cipher methods that are available.

(b) Discuss briefly about any two protocols for secure communications.

16. Describe the technical and non technical aspects of information security implementation in detail.

17. Write short notes on:
    (a) Security considerations for temporary and contract employees
    (b) Types of intrusion detection systems
    (c) Defense in depth.

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Estelar

Code No. 6220 / 0

FACULTY OF ENGINEERING

B.E. 4/4 (CSE) I – Semester (Old) Examination, December 2013

Subject: Information Security (Elective – I)

Time: 3 Hours **Max.Marks: 75**

Note: Answer all questions from Part A. Answer any five questions from Part B.

PART – A (25 Marks)

1. What are the three types of data ownership?
2. Draw the 3-D NSTISSC model of security and discuss briefly.
3. How is a policy different from a law?
4. What is Finger printing?
5. What is a timing attack?
6. What constitutes a security perimeter?
7. What is the operating principle of a Message Authentication Code?
8. In the context of a cipher, discuss confusion and diffusion?
9. What is a negative feedback loop?
10. What are the requirements of a digital signature?

PART – B (50 Marks)

11. Discuss in detail the different characteristics of information from the information security point of view.

12. List and describe briefly all the different types of attacks on information systems.

13.(a) What is a VPN? Differentiate between tunnel mode and transport mode.

(b) Discuss in detail the different Fire Wall architectures.

14.(a) Explain how the weighted factor analysis worksheet is used in prioritizing assets.

(b) Given that an asset has a value of 100 and has one vulnerability with a likelihood of 0.5 with current control that addresses 40% of its risk, find the risk value. Assume that the data are 80% accurate.

15.(a) Write briefly about the different cipher methods that are available.

(b) Discuss briefly about any two protocols for secure communications.

16. Describe the technical and non technical aspects of information security implementation in detail.

17. Write short notes on:
    (a) Security considerations for temporary and contract employees
    (b) Types of intrusion detection systems
    (c) Defense in depth.

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Estelar

Code No. 6223 / 0

FACULTY OF ENGINEERING

B.E. 4/4 (CSE) I – Semester (Old) Examination, December 2013

Subject: Middleware Technologies (Elective – I)

Time: 3 Hours **Max.Marks: 75**

Note: Answer all questions from Part A. Answer any five questions from Part B.

PART – A (25 Marks)

1. What is the difference between file server and web server? (2)
2. What is the purpose of middleware? (3)
3. Differentiate between Session Bean and Entity Bean. (3)
4. List the roles in EJB. (2)
5. What is IDL and why it is used? (3)
6. What is the role of ORB? (3)
7. What is Marshalling? (2)
8. Differentiate between EJB and COM. (3)
9. What is SOA? (2)
10. What is CTS? (2)

PART – B (50 Marks)

11.(a) Explain briefly about RPC. (5)

(b) Explain different types of servers in detail. (5)

12.(a) Explain in detail EJB architecture. (4)

(b) Write an EJB application to compute simple interest and mention the steps to deploy the application on server. (6)

13.(a) With an example program explain statefull and stateless session beans. (8)

(b) How entity bean manages persistence. (2)

14.(a) What is the purpose of CORBA? Explain different alternatives to CORBA. (5)

(b) Write a CORBA client application to say “Hello” along with IDL definition. (5)

15.(a) Explain about ·Net architecture and how it supports application deployment. (5)

(b) Explain in detail how client and server are implemented in COM. (5)

16.(a) Explain in detail about distributed applications. (5)

(b) Compare and contrast COM and CORBA. (5)

17. Write short notes on:

(a) REST services (5)

(b) WSDL (5)

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Estelar

Code No. 6223 / 0

FACULTY OF ENGINEERING

B.E. 4/4 (CSE) I – Semester (Old) Examination, December 2013

Subject: Middleware Technologies (Elective – I)

Time: 3 Hours **Max.Marks: 75**

Note: Answer all questions from Part A. Answer any five questions from Part B.

PART – A (25 Marks)

1. What is the difference between file server and web server? (2)
2. What is the purpose of middleware? (3)
3. Differentiate between Session Bean and Entity Bean. (3)
4. List the roles in EJB. (2)
5. What is IDL and why it is used? (3)
6. What is the role of ORB? (3)
7. What is Marshalling? (2)
8. Differentiate between EJB and COM. (3)
9. What is SOA? (2)
10. What is CTS? (2)

PART – B (50 Marks)

11.(a) Explain briefly about RPC. (5)

(b) Explain different types of servers in detail. (5)

12.(a) Explain in detail EJB architecture. (4)

(b) Write an EJB application to compute simple interest and mention the steps to deploy the application on server. (6)

13.(a) With an example program explain statefull and stateless session beans. (8)

(b) How entity bean manages persistence. (2)

14.(a) What is the purpose of CORBA? Explain different alternatives to CORBA. (5)

(b) Write a CORBA client application to say “Hello” along with IDL definition. (5)

15.(a) Explain about ·Net architecture and how it supports application deployment. (5)

(b) Explain in detail how client and server are implemented in COM. (5)

16.(a) Explain in detail about distributed applications. (5)

(b) Compare and contrast COM and CORBA. (5)

17. Write short notes on:

(a) REST services (5)

(b) WSDL (5)

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Estelar

Code No. 6221 / 0

FACULTY OF ENGINEERING

B.E. 4/4 (CSE) I – Semester (Old) Examination, December 2013

Subject: Simulation and Modeling (Elective – I)

Time: 3 Hours **Max.Marks: 75**

Note: Answer all questions from Part A. Answer any five questions from Part B.

PART – A (25 Marks)

1. List the areas of applications of Simulation. (2)
2. Define a system and system environment. Give examples. (3)
3. List the experimentation and analysis features. (3)
4. What are the properties of list processing? (2)
5. What are tests for a random number? (3)
6. Explain about uniform distribution. (2)
7. Define verification and validation of a simulation system. (3)
8. Explain the need for KS-test. (2)
9. Discuss about correlated sampling. (2)
10. What is meant by non terminating simulation? (3)

PART – B (50 Marks)

11. Name several entities, attributes, activities, events and state variables for the following systems. (10)
    (a) Cafeteria
    (b) An automobile assembly line

12. Write about a) FORTRAN b) SIMSCRIPT (10)

13. Discuss about Weibul's distribution and triangular distribution. (10)

14. Explain about multivariate and time series input models. (10)

15. Discuss about output analysis for steady state simulations. (10)

16.(a) Explain the simulation of inventory system with an example. (5)

(b) Discuss briefly about Gamma distribution. (5)

17. Write short notes on: (10)
    (a) Advantages and disadvantages of simulation
    (b) Properties of random numbers.

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Estelar

Code No. 6221 / 0

FACULTY OF ENGINEERING

B.E. 4/4 (CSE) I – Semester (Old) Examination, December 2013

Subject: Simulation and Modeling (Elective – I)

Time: 3 Hours **Max.Marks: 75**

Note: Answer all questions from Part A. Answer any five questions from Part B.

PART – A (25 Marks)

1. List the areas of applications of Simulation. (2)
2. Define a system and system environment. Give examples. (3)
3. List the experimentation and analysis features. (3)
4. What are the properties of list processing? (2)
5. What are tests for a random number? (3)
6. Explain about uniform distribution. (2)
7. Define verification and validation of a simulation system. (3)
8. Explain the need for KS-test. (2)
9. Discuss about correlated sampling. (2)
10. What is meant by non terminating simulation? (3)

PART – B (50 Marks)

11. Name several entities, attributes, activities, events and state variables for the following systems. (10)
    (a) Cafeteria
    (b) An automobile assembly line

12. Write about a) FORTRAN b) SIMSCRIPT (10)

13. Discuss about Weibul's distribution and triangular distribution. (10)

14. Explain about multivariate and time series input models. (10)

15. Discuss about output analysis for steady state simulations. (10)

16.(a) Explain the simulation of inventory system with an example. (5)

(b) Discuss briefly about Gamma distribution. (5)

17. Write short notes on: (10)
    (a) Advantages and disadvantages of simulation
    (b) Properties of random numbers.

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Estelar

Code No. 6466 / N

FACULTY OF ENGINEERING

B.E. 4/4 (CSE) I – Semester (New) (Main) Examination, December 2013

Subject : Adhoc and Sensor Networks (Elective – I)

Time : 3 hours **Max. Marks : 75**

Note: Answer all questions from Part-A. Answer any FIVE questions from Part-B.

PART – A (25 Marks)

1. Distinguish between broadcasting, multicasting and geocasting. (3)
2. Give four protocols for adhoc wireless networks that are extensions of wired network routing protocols. (2)
3. Write the services offered by a typical IEEE 802.11 network. (3)
4. What is content window size? How is this size related to access delay and load? (2)
5. Write three advantages and three disadvantages of split-TCP for adhoc wireless networks. (3)
6. Give design considerations of sensor networks along with the challenges. (2)
7. Write important issues to be considered in the design of sensor networks. (3)
8. Write two disadvantages of flooding. (2)
9. Distinguish between wormhole attack and blackhole attack. (2)
10. Give one application layer attack and explain briefly. (3)

PART – B (50 Marks)

11. Discuss the following issues in design of routing protocol for adhoc wireless networks. (10)
    a) Mobility b) Bandwidth c) Error-prone shared broadcast radio channel
12. Introduce IEEE 802.11 standard for WLANs and explain medium access control layer and physical layer mechanisms. (10)
13. Explain why TCP does not perform well in adhoc wireless networks. (10)
14. Describe data dissemination in wireless sensor networks. (10)
15. Describe and explain threshold cryptography. (10)
16. Present a comparison between Adhoc Wireless Networks and Wireless Sensor Networks. (10)
17. Write a note on : (10)
    a) Wireless Mesh Networks
    b) Applications of sensor networks

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Estelar

Code No. 6466 / N

FACULTY OF ENGINEERING

B.E. 4/4 (CSE) I – Semester (New) (Main) Examination, December 2013

Subject : Adhoc and Sensor Networks (Elective – I)

Time : 3 hours **Max. Marks : 75**

Note: Answer all questions from Part-A. Answer any FIVE questions from Part-B.

PART – A (25 Marks)

1. Distinguish between broadcasting, multicasting and geocasting. (3)
2. Give four protocols for adhoc wireless networks that are extensions of wired network routing protocols. (2)
3. Write the services offered by a typical IEEE 802.11 network. (3)
4. What is content window size? How is this size related to access delay and load? (2)
5. Write three advantages and three disadvantages of split-TCP for adhoc wireless networks. (3)
6. Give design considerations of sensor networks along with the challenges. (2)
7. Write important issues to be considered in the design of sensor networks. (3)
8. Write two disadvantages of flooding. (2)
9. Distinguish between wormhole attack and blackhole attack. (2)
10. Give one application layer attack and explain briefly. (3)

PART – B (50 Marks)

11. Discuss the following issues in design of routing protocol for adhoc wireless networks. (10)
    a) Mobility b) Bandwidth c) Error-prone shared broadcast radio channel
12. Introduce IEEE 802.11 standard for WLANs and explain medium access control layer and physical layer mechanisms. (10)
13. Explain why TCP does not perform well in adhoc wireless networks. (10)
14. Describe data dissemination in wireless sensor networks. (10)
15. Describe and explain threshold cryptography. (10)
16. Present a comparison between Adhoc Wireless Networks and Wireless Sensor Networks. (10)
17. Write a note on : (10)
    a) Wireless Mesh Networks
    b) Applications of sensor networks

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Estelar

Code No. 6222 / 0

FACULTY OF ENGINEERING

B.E. 4/4 (CSE) I – Semester (Old) Examination, December 2013

Subject: Adhoc and Sensor Networks (Elective – I)

Time: 3 Hours **Max.Marks: 75**

Note: Answer all questions from Part A. Answer any five questions from Part B.

PART – A (25 Marks)

1. What is flooding? (2)
2. List some on demand routing protocols. (3)
3. Differentiate between multicast and broadcast protocols. (2)
4. Describe Adhoc Transport protocol. (3)
5. What is QOS? How it is achieved? (2)
6. List some vulnerabilities of Mobile Adhoc Networks. (3)
7. What are Wireless Sensor Networks? (2)
8. Describe the Wireless Sensor Technology. (3)
9. Describe the working of Wireless Transmission Technology. (2)
10. What are the Fundamentals of MAC protocols? (3)

PART – B (50 Marks)

11.(a) Discuss the applications of Adhoc Networks.

(b) Give an analysis on Adhoc Network Protocols.

12. Explain about multicasting protocols and broadcasting protocols.

13.(a) Give an overview of transport layer for Adhoc Networks.

(b) Discuss about TCP-aware cross-layered solutions.

14. Explain about:
    (a) QOS routing
    (b) Intrusion Detection Techniques

15.(a) Give an introduction and overview of Wireless Sensor Networks.

(b) List some examples of category 2 WSN applications.

16. Describe the Radio Technology Primer and Wireless Technologies available at present.

17. Write notes on:
    (a) MAC protocols for WSN.
    (b) Potential Attacks in Mobile Adhoc Networks.
    (c) Location Based Routing.

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Estelar

Code No. 6222 / 0

FACULTY OF ENGINEERING

B.E. 4/4 (CSE) I – Semester (Old) Examination, December 2013

Subject: Adhoc and Sensor Networks (Elective – I)

Time: 3 Hours **Max.Marks: 75**

Note: Answer all questions from Part A. Answer any five questions from Part B.

PART – A (25 Marks)

1. What is flooding? (2)
2. List some on demand routing protocols. (3)
3. Differentiate between multicast and broadcast protocols. (2)
4. Describe Adhoc Transport protocol. (3)
5. What is QOS? How it is achieved? (2)
6. List some vulnerabilities of Mobile Adhoc Networks. (3)
7. What are Wireless Sensor Networks? (2)
8. Describe the Wireless Sensor Technology. (3)
9. Describe the working of Wireless Transmission Technology. (2)
10. What are the Fundamentals of MAC protocols? (3)

PART – B (50 Marks)

11.(a) Discuss the applications of Adhoc Networks.

(b) Give an analysis on Adhoc Network Protocols.

12. Explain about multicasting protocols and broadcasting protocols.

13.(a) Give an overview of transport layer for Adhoc Networks.

(b) Discuss about TCP-aware cross-layered solutions.

14. Explain about:
    (a) QOS routing
    (b) Intrusion Detection Techniques

15.(a) Give an introduction and overview of Wireless Sensor Networks.

(b) List some examples of category 2 WSN applications.

16. Describe the Radio Technology Primer and Wireless Technologies available at present.

17. Write notes on:
    (a) MAC protocols for WSN.
    (b) Potential Attacks in Mobile Adhoc Networks.
    (c) Location Based Routing.

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Estelar

Code No. 6462 / N

FACULTY OF ENGINEERING

B.E. 4/4 (CSE) I – Semester (New) (Main) Examination, December 2013

Subject: Software Project Management (Elective – I)

Time: 3 Hours **Max.Marks: 75**

Note: Answer all questions from Part A. Answer any five questions from Part B.

PART – A (25 Marks)

1. What are the principles of conventional software engineering and modern software engineering? (2)
2. What are the four components teams in a default project organization and their responsibility? (2)
3. How is risk exposure calculated? (2)
4. List two main reasons for stress during project execution. (2)
5. Define process maturity. (2)
6. List out various engineering artifacts. (3)
7. What are the essential activities in construction and transition phases? (3)
8. Identify the main stake holders in a software project that aims at automating the process of library in an engineering college. (3)
9. Explain Agile Methodology. (3)
10. Differentiate between a project and programme with respect to a software project. (3)

PART – B (50 Marks)

11. Explain the following: (10)
    a) Modern process transition.
    b) Leadership styles in software projects.

12.(a) Contrast the PERT and CPM methods of network activity modelling. How does PERT reduce the uncertainty in software project scheduling.
    (b) How the costs are categorized in software project management?

13.(a) What are the metrices collected in CCPDS-R? What is the purpose of each metric? (6)
    (b) Write short notes of Rigor. (4)

14.(a) What does each of the view (design, process, component, deployment) address in the software architecture? Explain with an example. (7)
    (b) Write short notes on stakeholder cohesion. (3)

15. Write short notes on the following:
    a) Modern project profiles. (4)
    b) Next generation software economics (4)
    c) Peer inspections (2)

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Code No. 6462 / N

FACULTY OF ENGINEERING

B.E. 4/4 (CSE) I – Semester (New) (Main) Examination, December 2013

Subject: Software Project Management (Elective – I)

Time: 3 Hours **Max.Marks: 75**

Note: Answer all questions from Part A. Answer any five questions from Part B.

PART – A (25 Marks)

1. What are the principles of conventional software engineering and modern software engineering? (2)
2. What are the four components teams in a default project organization and their responsibility? (2)
3. How is risk exposure calculated? (2)
4. List two main reasons for stress during project execution. (2)
5. Define process maturity. (2)
6. List out various engineering artifacts. (3)
7. What are the essential activities in construction and transition phases? (3)
8. Identify the main stake holders in a software project that aims at automating the process of library in an engineering college. (3)
9. Explain Agile Methodology. (3)
10. Differentiate between a project and programme with respect to a software project. (3)

PART – B (50 Marks)

11. Explain the following: (10)
    a) Modern process transition.
    b) Leadership styles in software projects.

12.(a) Contrast the PERT and CPM methods of network activity modelling. How does PERT reduce the uncertainty in software project scheduling.
    (b) How the costs are categorized in software project management?

13.(a) What are the metrices collected in CCPDS-R? What is the purpose of each metric? (6)
    (b) Write short notes of Rigor. (4)

14.(a) What does each of the view (design, process, component, deployment) address in the software architecture? Explain with an example. (7)
    (b) Write short notes on stakeholder cohesion. (3)

15. Write short notes on the following:
    a) Modern project profiles. (4)
    b) Next generation software economics (4)
    c) Peer inspections (2)

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Code No. 6464 / N

FACULTY OF ENGINEERING

B.E. 4/4 (CSE) I – Semester (New) (Main) Examination, December 2013

Subject : Computer Graphics (Elective – I)

Time : 3 hours **Max. Marks : 75**

Note: Answer all questions from Part-A. Answer any FIVE questions from Part-B.

PART – A (25 Marks)

1. Write the 3D transformation of motion. (3)
2. Define spline curves. (2)
3. Define rendering. (2)
4. What is surface path? (2)
5. How will you clip a point? (3)
6. Differentiate window port and view port. (3)
7. Define fractals. (2)
8. Why the Sutherland-Hodgeman polygon clipping algorithm works for only convex Clipping regions? (3)
9. What are applications of computer graphics in the area of image processing? (3)
10. What is inverse filtering? (2)

PART – B (50 Marks)

11. Explain the following :
    a) Line clipping algorithm (5)
    b) Curve clipping algorithm (5)

12.a) Explain about 3D object representation.
    b) Write about Bresenham's circle generating algorithm.

13. What are the steps in design of animation sequence? Describe about each step. (10)

14.a) Explain the z-buffer method of hidden surface removal. (5)
    b) What are B-spline curves? Explain briefly any three properties. (5)

15.a) Explain Ray tracing method in detail. (5)
    b) Briefly explain different color models in detail. (5)

16.a) List and explain in detail the problems with interpolated shading method. (6)
    b) Write about random fractals in detail. (4)

17.a) Discuss the methods to draw and add shadow to objects. (5)
    b) Differentiate flat and smooth shading models. (5)

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Estelar

Code No. 6464 / N

FACULTY OF ENGINEERING

B.E. 4/4 (CSE) I – Semester (New) (Main) Examination, December 2013

Subject : Computer Graphics (Elective – I)

Time : 3 hours **Max. Marks : 75**

Note: Answer all questions from Part-A. Answer any FIVE questions from Part-B.

PART – A (25 Marks)

1. Write the 3D transformation of motion. (3)
2. Define spline curves. (2)
3. Define rendering. (2)
4. What is surface path? (2)
5. How will you clip a point? (3)
6. Differentiate window port and view port. (3)
7. Define fractals. (2)
8. Why the Sutherland-Hodgeman polygon clipping algorithm works for only convex Clipping regions? (3)
9. What are applications of computer graphics in the area of image processing? (3)
10. What is inverse filtering? (2)

PART – B (50 Marks)

11. Explain the following :
    a) Line clipping algorithm (5)
    b) Curve clipping algorithm (5)

12.a) Explain about 3D object representation.
    b) Write about Bresenham's circle generating algorithm.

13. What are the steps in design of animation sequence? Describe about each step. (10)

14.a) Explain the z-buffer method of hidden surface removal. (5)
    b) What are B-spline curves? Explain briefly any three properties. (5)

15.a) Explain Ray tracing method in detail. (5)
    b) Briefly explain different color models in detail. (5)

16.a) List and explain in detail the problems with interpolated shading method. (6)
    b) Write about random fractals in detail. (4)

17.a) Discuss the methods to draw and add shadow to objects. (5)
    b) Differentiate flat and smooth shading models. (5)

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Estelar

Code No. 6467 / N

FACULTY OF ENGINEERING

B.E. 4/4 (CSE) I – Semester (New) (Main) Examination, December 2013

Subject: Mobile Computing (Elective – I)

Time: 3 Hours **Max.Marks: 75**

Note: Answer all questions from Part A. Answer any five questions from Part B.

PART – A (25 Marks)

1. Draw MSK for the bit stream 1 0 1 0 0 1 0
2. Explain about QAM.
3. Give the different types of handover in GSM.
4. Explain localization.
5. Differentiate between wired and wireless transmission.
6. Explain Bluetooth security block diagram.
7. Explain the concept Tunnelling.
8. Explain indirect TCP.
9. Give features of palm OS.
10. Explain symbian OS features.

PART – B (50 Marks)

11.(a) Compare SDMA / TDMA / FDMA / CDMA.
(b) Define spread spectrum and differentiate between DHSS and FHSS.

12.(a) Give GSM architecture.
(b) Explain about Digital Audio Broadcasting.

13.(a) Explain Adhoc Networks.
(b) Explain HYPERLAN.

14.(a) Explain about dynamic host configuration protocol.
(b) Explain TCP for wireless networks.

15.(a) Explain WWW.
(b) Give protocol architecture for WAP.

16.(a) Discuss about Mobile IP.
(b) Explain cellular system.

17. Explain about
    a) Signal propagation
    b) Satellite systems.

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FACULTY OF ENGINEERING

B.E. 4/4 (CSE) I – Semester (New) (Main) Examination, December 2013

Subject: Mobile Computing (Elective – I)

Time: 3 Hours **Max.Marks: 75**

Note: Answer all questions from Part A. Answer any five questions from Part B.

PART – A (25 Marks)

1. Draw MSK for the bit stream 1 0 1 0 0 1 0
2. Explain about QAM.
3. Give the different types of handover in GSM.
4. Explain localization.
5. Differentiate between wired and wireless transmission.
6. Explain Bluetooth security block diagram.
7. Explain the concept Tunnelling.
8. Explain indirect TCP.
9. Give features of palm OS.
10. Explain symbian OS features.

PART – B (50 Marks)

11.(a) Compare SDMA / TDMA / FDMA / CDMA.
(b) Define spread spectrum and differentiate between DHSS and FHSS.

12.(a) Give GSM architecture.
(b) Explain about Digital Audio Broadcasting.

13.(a) Explain Adhoc Networks.
(b) Explain HYPERLAN.

14.(a) Explain about dynamic host configuration protocol.
(b) Explain TCP for wireless networks.

15.(a) Explain WWW.
(b) Give protocol architecture for WAP.

16.(a) Discuss about Mobile IP.
(b) Explain cellular system.

17. Explain about
    a) Signal propagation
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