

G 2180

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Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, APRIL 2010

Sixth Semester

Branch : Information Technology

PROJECT MANAGEMENT (T)

(Regular—2007 admissions ; Supplementary—Prior to 2007 admissions)

Time : Three Hours

Maximum : 100 Marks

Part A

Answer all questions.

Each question carries 4 marks.

1. State the factors involved in the justification of capital expenditure.
2. State the factors behind planning phases of project management.
3. Write a note on Financial Analysis of a project.
4. What is meant by Risk ? Give an example for risk analysis.
5. What are the problems arise in managing a project ?
6. State the uses of project management software.
7. What are the benefits of ISO 9000 Certification ?
8. What is meant by Quality Function Deployment ? Write a note on warranties.
9. State the characteristics of operating characteristics curve.
10. How to eliminate sampling errors ?

(10 × 4 = 40 marks)

Part B

Answer all questions.

Each question carries 12 marks.

11. Elucidate the nature of capital budgeting problems. What are the principal methods of ranking alternative investment proposal ?

Or

12. Discuss the need and importance of forms of project organisation.
13. State the assumptions underlying Capital Asset Pricing Model (CAPM). Discuss the capital market line.

Or

14. How does one incorporate the element of uncertainty in carrying out the exercise on project appraisal ?

Turn over

15. Discuss the behavioural issues of Project Management.

Or

16. State and explain the various functions of control systems.

17. Discuss the objectives, benefits of ISO 9000 Certification.

Or

18. State and explain the Organisational Evaluation Standards and Product Evaluation Standards of ISO 14000.

19. What are the advantages of Sampling plan ? How to determine a sample size for a sequential sampling ?

Or

20. What is meant by sampling ? How to correct errors in sampling ?

(5 × 12 = 60 marks)

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Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, APRIL 2010

Sixth Semester

Branch : Computer Science and Engineering/Information Technology

SOFTWARE ENGINEERING (R, T)

(Regular—2007 admissions ; Supplementary—Prior to 2007 admissions)

Time : Three Hours

Maximum : 100 Marks

Answer all questions.

Part A

1. What is Software Engineering ? Explain.
2. Explain the process models in Software Engineering.
3. Explain the COCOMO model in detail.
4. What is milestone graph ? Explain.
5. What is cohesion ? Explain.
6. Explain the methods for verifying design.
7. What is unit testing ? Explain.
8. What is meant by code inspection ?
9. Define and explain error removal efficiency.
10. Explain black box and white box testing.

(10 × 4 = 40 marks)

Part B

11. Explain in detail the Software requirement specifications.

Or

12. Discuss in detail the phases in software development.
13. Explain in detail project scheduling.

Or

14. Explain the objectives of software project planning.
15. Explain the top down and bottom up approaches of system design.

Or

16. Explain the structured design methodology in detail.

Turn over

17. Explain the need and applications of coding in Software Engineering.

Or

18. Explain the concept of Information hiding.

19. Explain in detail the testing fundamentals.

Or

20. Write technical notes on :

(a) Structural testing.

(6 marks)

(b) Reliability assessment.

(6 marks)

[5 × 12 = 60 marks]

G 2195

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Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, APRIL 2010

Sixth Semester

E&I/IT/AE & I/ECE

Branch : DIGITAL SIGNAL PROCESSING (LTAS)

(Regular—2007 admissions ; Supplementary—Prior to 2007 admissions)

Time : Three Hours

Maximum : 100 Marks

Answer all questions.

Part A

1. Explain the advantages and limitations of Digital Signal Processing.
2. What are the different types of structures for realization of IIR systems ?
3. How the zeros in FIR filter is located ? Explain briefly.
4. Compare Hamming window with Kaiser window and give the equation specifying Kaiser window.
5. List out any four properties of DFT.
6. Calculate the no. of multiplications needed in the calculation of DFT and FFT with 64 point sequence.
7. What is meant by block floating point representation ? What are its advantages ?
8. What are the two kinds of limit cycle behaviour in DSP ? Explain.
9. What is meant by channel recorder ? Explain.
10. Write notes on DSP based measurement systems.

(10 × 4 = 40 marks)

Part B

11. Design a Butterworth filter using the impulse variance method for the following specifications :

$$0.8 \leq |H(e^{jw})| \leq 1, \quad 0 \leq w \leq 0.2\pi$$
$$|H(e^{jw})| \leq 0.2, \quad 0.6\pi \leq w \leq \pi$$

Or

12. Obtain the direct form I, direct form II cascade and parallel form realization of the filter :

$$y(n) = y(n-1) - \frac{1}{2}y(n-2) + \frac{1}{4}y(n-2) + x(n) - x(n-1) + x(n-2).$$

13. Obtain the cascade realization of system function $1 + (z) = (1 + 2z^{-2} - z^{-2})(1 + z^{-1} - z^{-2})$.

Or

Turn over

14. Design a filter with

$$H_d(e^{j\omega}) = \begin{cases} e^{-j3\omega} & -\pi/4 \leq \omega \leq \pi/4 \\ 0 & \pi/4 < |\omega| \leq \pi \end{cases}$$

using a Hamming window with $N = 7$.

15. Draw the signal flow graph for 16 point DFT using (a) DIT algorithm ; (b) DIF algorithm.

Or

16. Given $x(n) = 2^n$ and $N = 8$, find $X(r)$ using DIT – FFT algorithm.

17. Study the limit cycle behaviour of the system :

$$y(n) = 0.7 y(n-1) + x(n).$$

Determine the dead band of the above systems.

Or

18. For the given transfer function $H(z) = H_1(z) H_2(z)$

$$H_2(z)$$

where $H_1(z) = \frac{1}{1-0.5z^{-1}}$ and $H_2(z) = \frac{1}{1-0.4z^{-1}}$ find the output round off noise power calculate the value if $b = 3$ (excluding sign bit).

19. Write notes on Radar signal processing.

Or

20. Write notes on :

(a) Speech coding.

(6 marks)

(b) Channel recorder.

(6 marks)

[5 × 12 = 60 marks]

G 2213

(Pages : 2)

Reg. No.....

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B.TECH. DEGREE EXAMINATION, APRIL 2010

Sixth Semester

Branch : Computer Science and Engineering/Information Technology

NETWORK COMPUTING (R, T)

(Regular—2007 admissions ; Supplementary—Prior to 2007 admissions)

Time : Three Hours

Maximum : 100 Marks

Answer all the questions.

Part A

Each question carries 4 marks.

1. Briefly explain about Image maps.
2. What do you mean by "Class Attribute" ?
3. Explain the usage of control statements.
4. Discuss the uses of Active and Control.
5. List out the features of Java.
6. What do you mean by Inner classes ? Explain it briefly.
7. Briefly explain about life cycle of applets.
8. Write a short note on "Data gram".
9. Explain the terms "GET, PUT and HEAD".
10. Write a short note on "POP" protocol.

(10 × 4 = 40 marks)

Part B

Each question carries 12 marks.

11. With an example, explain how to create a HTML Codes of a basic table structure.

Or

12. Explain style sheets.

13. Discuss in detail about event handling and document object model.

Or

14. Explain in detail about dynamic updating of pages with Java script.

15. With some suitable examples, explain about creating and using classes in Java.

Or

16. Write a short technical note on "Multithreaded programs and thread synchronization".

Turn over

17. Write a note on "TCP/IP Programming with Java".

Or

18. Discuss in detail about RMI structure and working with simple programme.

19. Write a note on server side scripting.

Or

20. Briefly explain the working of a CGI supported web-server.

(5 × 12 = 60 marks)

G 2224

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Reg. No.....

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B.TECH. DEGREE EXAMINATION, APRIL 2010

Sixth Semester

Branch : Information Technology

PERSONAL COMPUTER HARDWARE (T)

(Regular—2007 admissions ; Supplementary—Prior to 2007 admissions)

Time : Three Hours

Maximum : 100 Marks

Answer all the questions.

Part A

Each question carries 4 marks.

1. Explain the requirements of an Ideal power supply.
2. Give an account on "Add-on-Cards".
3. Explain the principle of Disk formatting.
4. Explain about standard CHS addressing.
5. Explain the advantages and applications of CD ROM technology.
6. What is the advantage of holographic storage ? Explain.
7. What is the concept of segmented addressing ?
8. What is Cache memory ? Explain.
9. What is USB ? Explain.
10. What is EIDE ? Explain.

(10 × 4 = 40 marks)

Part B

Each question carries 12 marks.

11. Differentiate SMPS from Linear mode power supply. Explain the difference.

Or

12. Write technical notes on :

(a) Motherboard.

(6 marks)

(b) Slots and connectors.

(6 marks)

13. Explain the functioning of DMA and Ultra DMA with neat diagrams.

Or

14. Explain in detail the principle of magnetic data storage with neat diagrams.

Turn over

15. Explain in detail the memory management in PC.

Or

16. Explain in detail the extended memory and expanded memory.

17. Explain the principles and need for magneto optical drives.

Or

18. Give an account on :

(a) DVD-RAID.

(b) Drive specifications.

(6 + 6 = 12 marks)

19. Explain the serial, parallel and communication ports in detail.

Or

20. Write short notes on :

(a) ISA.

(4 marks)

(b) IDE.

(4 marks)

(c) Interface connectors.

(4 marks)

[5 × 12 = 60 marks]

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(Pages : 2)

Reg. No.....

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B.TECH. DEGREE EXAMINATION, APRIL 2010

Sixth Semester

Branch : Computer Science and Engineering/Information Technology

COMPUTER NETWORKS (R, T)

(Regular—2007 admissions ; Supplementary—Prior to 2007 admissions)

Time : Three Hours

Maximum : 100 Marks

Answer all questions.

Part A

Each question carries 4 marks.

1. Briefly explain network hardware.
2. What is ISDN ? Explain.
3. What is framing ? Why framing is necessary ?
4. What is ALOHA ? Explain.
5. Explain distance vector routing.
6. What is traffic shaping ?
7. What are multiple access protocols ?
8. Explain ATM.
9. Describe service primitives.
10. Explain the term Piconet and Scatternet.

(10 × 4 = 40 marks)

Part B

Each question carries 12 marks.

11. Compare OST and TCP/IP reference model on from their merits and demerits.

Or

12. Explain different types of satellites.
13. Explain the sliding window protocol and compare its performance against the simple stop and wait protocol.

Or

14. Explain leaky bucket algorithm and flow specifications.
15. Explain static and dynamic channel allocation in LAN and WAN's.

Or

16. Write notes on (i) Link state routing ; (ii) Choke packets.

(6 + 6 = 12 marks)

Turn over

17. Explain the transport service access point and various schemes used by transport layer to find the TSAP at a server.

Or

18. (a) Explain in detail the function of ATM network. (6 marks)

(b) Draw the UDP header and explain its field. (6 marks)

19. Explain the DNS in terms of name space resource record and name server.

Or

20. Explain different network topology in mobile network.

[5 × 12 = 60 marks]

Part A

Each question carries 4 marks

1. Briefly explain network hardware.
2. What is ISDN? Explain.
3. What is framing? Why framing is necessary?
4. What is ALOHA? Explain.
5. Explain distance vector routing.
6. What is traffic shaping?
7. What are multiple access protocols?
8. Explain ATM.
9. Describe service primitives.
10. Explain the term Piconet and Scatternet.

(10 × 4 = 40 marks)

Part B

Each question carries 12 marks

11. Compare GSN and TCP/IP reference model on their merits and demerits.
12. Explain different types of satellites.
13. Explain the sliding window protocol and compare its performance against the simple stop and wait protocol.
14. Explain leaky bucket algorithm and flow specifications.
15. Explain static and dynamic channel allocation in LAN and WAN.
16. Write notes on (i) Link state routing; (ii) Choke packets.

(6 + 6 = 12 marks)

Turn over