G 1426

(Pages : 2)

B.TECH. DEGREE EXAMINATION, MAY 2012

Sixth Semester

Branch : Information Technology

PROJECT MANAGEMENT (T)

(Regular/Improvement/Supplementary)

Time : Three Hours

Maximum : 100 Marks

Part A

Answer all questions.
Each question carries 4 marks.

1. Discuss about organizational appraisal.

2. What is the significance of SCBA in Indian context ? Explain.

3. What is economic rate of return ?

4. Discuss about activity based costing.

5. What is labour cost analysis in projects ?

6. Discuss about restricted reserve in projects.

7. Discuss the computer application in project cost control.

8. Explain the steps in cluster sampling.

9. Discuss about ISO 14000.

10. What is post project evaluation ? Explain.

(10 × 4 = 40 marks)

Part B

Answer all questions.
Each question carries 12 marks.

11. Explain the stages of project development cycle.

Or

12. Distinguish and discuss about project and matrix organizations.

13. Explain the strategies and tactics in financial analysis.

Or

14. Discuss the procedural steps in Market Survey.

15. Discuss about the features of MS project.

Or

16. List out and explain the behavioural issues in project management.

Turn over

17. Distinguish between ISO 9000 and 14000 series.

Or

18. Discuss about QFD with an example.

19. Discuss the major sampling errors.

Or

20. Explain the procedural steps in stratified random sampling with a live example.

(5 × 12 = 60 marks)

G 1433

(Pages : 2)

Reg. No....................................

Name.......................................

B.TECH. DEGREE EXAMINATION, MAY 2012

Sixth Semester

Branch : Computer Science and Engineering / Information Technology

SOFTWARE ENGINEERING (R, T)

(Regular/Improvement/Supplementary)

Time : Three Hours

Maximum : 100 Marks

Part A

Answer all questions.
Each question carries 4 marks.

1. Define and explain Software Engineering.

2. Explain in detail the phase in software development.

3. Define and explain profit scheduling.

4. Explain the cost estimation and uncertainties in project planning.

5. Explain coupling in System Design.

6. Explain the structured design methodologies.

7. What is structured programming ? Explain in detail.

8. Explain the principle of code reading ? Explain.

9. What are functional and structured testing ? Explain.

10. Define and explain error removal efficiency.

(10 × 4 = 40 marks)

Part B

Answer all questions.
Each question carries 12 marks.

11. Explain in detail the Software requirement specifications

Or

12. Describe in detail the role of Management in Software development.

13. Explain (1) Rayleigh ; (2) teamstructure in detail.

Or

14. Explain the project monitoring plans in detail.

15. Explain the structured design methodologies in detail.

Or

16. Explain in detail the principles of system design.

17. Explain in detail the 'Information hiding'.

Or

18. Explain the following :—

    (a) Unit testing ;

    (b) Symbolic execution.

19. Compare and contrast verification and validation techniques. Explain the comparison.

Or

20. Discuss in detail the fundamentals of testing.

(5 × 12 = 60 marks)

G 1450 (Pages : 2) Reg. No........................

Name........................

B.TECH. DEGREE EXAMINATION, MAY 2012

Sixth Semester

Branch : Computer Science and Engineering/Information Technology

COMPUTER NETWORKS (R, T)

(Regular/Improvement/Supplementary)

Time : Three Hours Maximum : 100 Marks

Part A

Answer all questions.
Each question carries 4 marks.

1. Compare ISO-OSI Reference model with TCP/IP reference model.

2. Compare satellite communication with Fiber optic communication.

3. What is static and dynamic channel allocation ?

4. Define ALOHA.

5. Explain flow based Routing.

6. Explain Jitter control.

7. Explain service provided by transport layer.

8. Define UDP.

9. Explain the operation of DNS.

10. Describe Bluetooth.

(10 × 4 = 40 marks)

Part B

Answer all questions.
Each question carries 12 marks.

11. Explain network hardwares in detail.

Or

12. Discuss various communication satellites.

13. Explain the performance of sliding window protocol.

Or

14. Explain carries sense Multiple access protocols.

Turn over

15. Explain the following :—

    (a)   Line state routing.   (6 marks)

    (b)   Distance vector routing.   (6 marks)

Or

16. Write notes on :

    (a)   Traffic shaping.   (6 marks)

    (b)   Leaky bucket algorithm.   (6 marks)

17. Explain the elements of transport protocols.

Or

18. Explain "Internet transfer protocols".

19. Explain MIME.

Or

20. Discuss various network topology in Mobile networks.

                                                  [5 × 12 = 60 marks]

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                                                            Name...................................

B.TECH. DEGREE EXAMINATION, MAY 2012

Sixth Semester

Branch : Computer Science and Engineering / Information Technology

NETWORK COMPUTING (R, T)

(Regular/Improvement/Supplementary)

Time : Three Hours   Maximum : 100 Marks

Part A

Answer all questions.
Each question carries 4 marks.

1. Explain style sheets.

2. Briefly explain Image maps.

3. What is meant by active control ?

4. What are the function of control statements ?

5. Explain the term Inheritance.

6. What is meant by Multi threaded programs ?

7. What is Applets and mention their application ?

8. Explain Datagrams.

9. Explain the term POST, HEAD.

10. What is meant by server side scripting ?

                                                    (10 × 4 = 40 marks)

Part B

Answer all questions.
Each question carries 12 marks.

11. Explain how to create HTML codes for a basic tables and frames.

                                Or

12. Write notes on :

   (i) Embedded style sheets.

                                                            (6 marks)

   (ii) External style sheets.

                                                            (6 marks)

                                                            Turn over

13. Discuss client side scripting.

Or

14. Explain dynamic updating of pages with Java script.

15. Write notes on :

    (i)   Creating and using classes in Java.   (6 marks)

    (ii)   Static classes.   (6 marks)

Or

16. Write notes on creating GUI with AWT and swing.

17. Write notes on thread and Thread synchronization.

Or

18. Explain TCP/IP programming with Java.

19. Explain server side scripting.

Or

20. Explain HTML forms and CGI-GET and POST.

                                                [5 × 12 = 60 marks]

G 1470

(Pages : 2)

B.TECH. DEGREE EXAMINATION, MAY 2012

Sixth Semester

Branch : Information Technology

PERSONAL COMPUTER HARDWARE (T)

(Regular/Improvement/Supplementary)

Time : Three Hours

Maximum : 100 Marks

Answer all the questions.

Part A

Each question carries 4 marks.

1. What are slots and connectors ? Explain.
2. Define and explain the parameters of SMPS.
3. Explain the principles of Disk permatting in detail.
4. Explain in detail about standard CHS addressing.
5. Define and explain constant linear velocity and constant angular velocity.
6. What is the principle of holographic storage ? Explain.
7. What is the principle of segmented addressing ? Explain.
8. Explain the linear and physical memory addresses.
9. What is PCMCIA ? Explain in detail.
10. Explain the potential applications of USB.

(10 × 4 = 40 marks)

Part B

Each question carries 12 marks.

11. Draw a neat block diagram of SMPS and explain its principle of Operation in detail.

Or

12. Explain the hardware components of PC in detail with neat sketches.
13. Explain the Disk magnetic properties in detail.

Or

14. Explain in detail the Hard disk data transfer modes.
15. Explain the principle of CD technology and applications of CD ROM in detail.

Or

16. Explain the following in detail.

    (a) WORM Devices.   (b) Buffers.

(6 + 6 = 12 marks)

Turn over

17. Explain the structures of SRAM and DRAM in detail with neat diagrams.

Or

18. Explain the flat memory model and Advanced memory technologies in detail.

19. Explain in detail about Keyboard/Mouse Interface Connectors.

Or

20. Give an account on :

    (a) EIOE.

    (b) ATA HDTs.

    (6 + 6 = 12 marks)

    (5 × 12 = 60 marks)

B.TECH. DEGREE EXAMINATION, MAY 2012

Sixth Semester

Branch : E and I/I.T./A.E. and I/E.C.E.

DIGITAL SIGNAL PROCESSING (LTAS)

(Regular/Improvement/Supplementary)

Time : Three Hours   Maximum : 100 Marks

Answer **all** *questions.*

Part A

Each question carries 4 marks.

1. List the advantages and disadvantages of Digital Signal Processing.

2. What are the factors that influence the choice of a specific network structure ?

3. What are the conditions to be satisfied by the impulse response $h(n)$ of a discrete time system to have linear phase ? What are the different types of linear phase filters ?

4. What is Gibb's phenomenon ? Explain the method used to control this in FIR filter design.

5. State and prove convolution property of DFT.

6. Explain Bit reversal in FFT algorithms.

7. What is meant by block floating point represenation ? What are its advantages ?

8. What is the effect of quantization on pole location ?

9. Write notes on DSP based measurement systems.

10. How do you select a DSP chip for a given application ?

(10 × 4 = 40 marks)

Part B

Each question carries 12 marks.

11. Design a digital butterworth filter to satisfy the following specifications using impulse invariant transformation.

Stop band attenuation $\geq$ 15 dB

Pass band Edge = 750 Hz

Pass band attenuation $\leq$ 3.01 dB

Stop band Edge = 500 Hz

Sampling Frequency = 1 kHz.

(12 marks)

Or

Turn over

12. Obtain the direct form I, direct form II, cascade and parallel realizations of the system characterized by

$$H(z) = \frac{z^{-1}}{\left(1 - \frac{1}{2}z^{-1} + \frac{1}{3}z^{-2}\right)\left(1 + \frac{1}{5}z^{-1}\right)}.$$

(12 marks)

13. (a) Obtain the direct form and lattice of realization for the system described by

$$H(z) = 1 + \frac{2}{5}z^{-1} + \frac{3}{4}z^{-2} + \frac{1}{3}z^{-3}.$$

(8 marks)

(b) Realize the filter with impulse response $h[n] = \{1, 2, 3, 3, 2, 1\}$ using minimum number of multipliers.

(4 marks)

Or

14. Design a low pass digital filter with 3 dB cut off at 30π rad/sec. and an attenuation of 50 dB at 45π rad/sec. The system will use a sampling rate of 100 samples/sec.

(12 marks)

15. The four point DFT of a real sequence $x[n]$ is $X[k] = \{1, j, 1, -j\}$. Using the properties of DFT, find the DFT of the following sequences.

(a) $x_1[n] = (-1)^n x[n].$

(b) $x_2[n] = x[n-4]_4.$

(c) $x_3[n] = x[4-n].$

(d) $x_4[n] = x\left[\frac{n}{2}\right].$

(12 marks)

Or

16. Consider the sequence $x[n] = \{1, 2, 3, 4\}$. If $X(k)$ is the 6 point DFT of the sequence $x[n]$,

(a) Determine the finite length sequence $g[n]$ which has a 6 point DFT equal to real part of $X(k)$.

(b) Determine the finite length sequence $h[n]$ which has a 6 point DFT equal to imaginary part of $X(k)$.

Derive the equations used.

(12 marks)

17. Explain the quantization effects in the computation of DFT and hence derive the expression for the signal to noise power ratio.

(12 marks)

Or

18. (a) Explain limit cycle oscillations.

(6 marks)

(b) Explain truncation and rounding. Discuss its effect on all types of number representations.

(6 marks)

19. With a neat block diagram explain :

(a) Speech coding.

(b) Subband coding of speech and audio signals.

(12 marks)

Or

20. With a neat block diagram explain how audio signal is processed and recorded in a compact disc system.

(12 marks)

[5 × 12 = 60 marks]