

G 6874

(Pages : 2)

Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, APRIL 2011

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. Explain about Project Identification.
2. Explain the major steps in project formulation.
3. Discuss about modernization projects.
4. Discuss about SCBA.
5. What is public loan? Explain.
6. List out and explain the types of project deviations.
7. Explain abandonment analysis.
8. Explain about benchmarking.
9. Discuss about cluster sampling.
10. Explain the steps in estimation of population proportion.

(10 × 4 = 40 marks)

Part B

Answer all questions.

Each question carries 12 marks.

11. Discuss in detail about the project development cycle.

Or

12. Explain in detail the parameters used in project selection.

Turn over

13. Discuss the procedural steps in SCBA.

Or

14. Explain the forecasting techniques used for market analysis.

15. Discuss about major project management softwares.

Or

16. Determine the behavioral issues in PM and discuss about the same.

17. Discuss in detail about ISO 9000 series.

Or

18. Explain in detail about the TPM methodology.

19. Discuss the major sampling designs.

Or

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

(5 × 12 = 60 marks)

(5 × 12 = 60 marks)

Part B

Answer all questions.

Each question carries 12 marks.

11. Discuss in detail about the project development cycle.

Or

12. Explain in detail the various steps used in project selection.

G 6881

(Pages : 2)

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B.TECH. DEGREE EXAMINATION, APRIL 2011

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 the questions.

Each question carries 4 marks.

1. Define and explain software Engineering.
2. What is SRS ? Explain in detail.
3. Give an account on COCOMO project model.
4. What is Milestone graph ? Explain in detail.
5. Explain cohesion in system Design.
6. What are 'Matrices in system design ? Explain.
7. Explain in detail about 'code inspections'.
8. Explain in detail the principle of code Reading.
9. Explain in detail the fundamentals of testing.
10. Define and explain error removal efficiency.

(10 × 4 = 40 marks)

Part B

Answer all the questions.

Each question carries 12 marks.

11. Explain in detail the phases in software development.
- Or*
12. Discuss in detail the software development process models.
 13. Explain the project scheduling in detail.
- Or*
14. Explain in detail the management and Quality assurance plans.

Turn over

15. Explain in detail the problem partitioning and hierarchy in system design.

Or

16. Explain in detail the structured design methodologies.

17. Explain in detail the Internal documentation and Verification in coding.

Or

18. Explain the principles of code inspections and unit testing in detail.

19. Explain the functional and structured testing in detail.

Or

20. Write technical notes on :

(a) Reliability Assessment.

(6 marks)

(b) Programmer Productivity.

(6 marks)

[5 × 12 = 60 marks]

G 6898

(Pages : 2)

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B.TECH. DEGREE EXAMINATION, APRIL 2011

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. List out network hardwares.
2. Define geostationary satellites.
3. What are LAN protocols ? Explain.
4. Explain CSMA/CD.
5. Explain flooding.
6. Explain congestion prevention policies.
7. Define UDP and TCP.
8. List out the elements of transport protocols.
9. Explain "MIME".
10. Discuss Network topology.

(10 × 4 = 40 marks)

Part B

Answer all questions.

Each question carries 12 marks.

11. Draw the architecture of ISO/OSI reference model. Explain the function of each layer.

Or

12. Define ISDN and explain ISDN system Architecture.

(12 marks)

13. Discuss design issues in datalink layer.

Or

14. Explain any one multiple access protocols.

(12 marks)

Turn over

15. Explain in detail "Routing algorithm".

Or

16. Explain leaky bucket algorithm and flow specification.

(12 marks)

17. Explain the function of transport layer and elements of transport protocols.

Or

18. Explain ATM architecture.

(12 marks)

19. Write notes on :

(a) DNS name space.

(6 marks)

(b) Mobile telephone system.

(6 marks)

Or

20. Explain the following :—

(i) Piconet and scatternet.

(6 marks)

(ii) Electronic mail.

(6 marks)

[5 × 12 = 60 marks]

G 6907

(Pages : 2)

Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, APRIL 2011

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. What is meant by tables and frames ?
2. Discuss class attribute.
3. Write short notes on control statements.
4. What do you mean by event handling ?
5. List out the features of Java.
6. Explain thread synchronization.
7. Explain security features of applets.
8. Explain the term RMI.
9. Write notes on HTTP methods.
10. Write short notes on SMTP protocols.

(10 × 4 = 40 marks)

Part B

Answer all questions.

Each question carries 12 marks.

11. Explain inline style sheets.
12. Explain DIV and SPAN tags.
13. Write notes on document object model.

Or

14. Explain dynamic updating of pages with JAVA script.

Or

Turn over

15. Explain nested classes and inner classes.

Or

16. Write notes on "creating GUI and AWT".

17. Write notes on "Inter applet communication".

Or

18. Explain iterative and concurrent servers.

19. Explain the working of HTTP protocol.

Or

20. Explain the working of POP protocols in detail.

(5 × 12 = 60 marks)

G 6918

(Pages : 2)

Reg. No.....

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B.TECH. DEGREE EXAMINATION, APRIL 2011

Sixth Semester

Branch—Information Technology

PERSONAL COMPUTER HARDWARE (T)

(Regular/Improvement/Supplementary)

Time : Three Hours

Maximum : 100 Marks

Part A

*Answer all the questions.
Each question carries 4 marks.*

1. Explain the different types of ports in detail.
2. Explain the need for Add-on cards in detail.
3. Explain in detail the Floppy Disk physical specification.
4. What is the principle of Data addressing ? Explain in detail.
5. Define and explain :
 - (a) Data transfer rate ;
 - (b) Access time.
6. Explain the need for Buffers.
7. Explain in detail about extended and expanded memory.
8. What is HMA ? Explain in detail.
9. Explain the structure of AGP in detail.
10. What is EIDE ? Explain in detail.

(10 × 4 = 40 marks)

Part B

Each full question carries 12 marks.

11. Compare and contrast linear mode power supply from SMPS.

Or

12. Explain in detail about slots and connectors in personal computer.
13. Explain the HOD operation in detail with a neat sketch.

Or

Turn over

14. Explain the following in detail :—

- (i) Ultra DMA ;
- (ii) Logical block addressing.

(6 + 6 = 12 marks)

15. Explain CDROM drive specifications in detail.

Or

16. Explain the flat memory model and video memory in detail.

17. Explain the working principle of DVD and RAID with neat sketches.

Or

18. Differentiate SRAM from DRAM. Explain the difference in detail.

19. Explain the structures of USB and PCMCIA in detail.

Or

20. Give an account on 'Keyboard/Mouse Interface connectors'.

[5 × 12 = 60 marks]

B.TECH. DEGREE EXAMINATION, APRIL 2011**Sixth Semester**

Branch : Electronics and Communication/Information Technology/Applied Electronics and Instrumentation Electronics and Instrumentation

DIGITAL SIGNAL PROCESSING (LTAS)

(Regular/Improvement/Supplementary)

Time : Three Hours

Maximum : 100 Marks

*Answer all questions.***Part A***Each question carries 4 marks.*

1. What are the factors that influence the choice of a specific Network structure?
2. For the analog transfer function $H(s) = \frac{1}{(s+1)(s+2)}$, determine $H(z)$ using impulse invariant method, Take $T = 1$ sec.
3. Realize the filter with impulse response $h[n] = \{1,2,3,4,3,2,1\}$ using minimum number of multipliers.
4. Distinguish between fixed and adjustable windows in FIR filter design.
5. Compare circular convolution and Linear convolution.
6. What is the improvement in speed in terms of number of complex additions and multiplications in calculating 1024 point DFT of a sequence using Direct computation and FFT algorithm.
7. Write short notes on product Quantization error.
8. Write short notes on Signal scaling.
9. Explain any *two* real world applications of Digital signal processing.
10. How do you select a DSP chip for a given application?

(10 × 4 = 40 marks)

Turn over

Part B*Each question carries 12 marks.*

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

Stop band attenuation	≥ 20 dB	
Pass band Edge	$= 750$ Hz	
Pass band attenuation	≤ 3.01 dB	
Stop band Edge	$= 500$ Hz	
Sampling frequency	$= 1$ kHz	(12 marks)

Or

12. Obtain the direct form I, direct form II, cascade and parallel form of realization for the system described by $y[n] + 0.1 y[n-1] + 0.2 y[n-2] = 3x[n] + 3.6 x[n-1] + 0.6 x[n-2]$. (12 marks)

13. Design an FIR low pass filter satisfying the following specifications.

Pass band attenuation	≤ 0.1 dB	
Stop band attenuation	≥ 44 dB	
Pass band Edge	$= 20$ rad/sec	
Stop band Edge	$= 30$ rad/sec	
Sampling frequency	$= 100$ rad/sec	(12 marks)

Or

14. Obtain the direct form and lattice of realization for the system described by

$$H(z) = 1 + 2.88z^{-1} + 3.4048z^{-2} + 1.74z^{-3} + 0.4z^{-4} \quad (12 \text{ marks})$$

15. (a) Explain the method of computing IDFT using FFT algorithm (6 marks)

- (b) If $x[n] = 2\delta[n] + \delta[n-1] + \delta[n-3]$, find 5 point IDFT of $Y(k) = X^2(k)$, where $X(k)$ and $Y(k)$ are the 5 point DFT of the sequences $x[n]$ and $y[n]$ respectively. (6 marks)

Or

16. Obtain the response of the system with input $x[n] = \{1, 1, 2\}$ and impulse response $h[n] = \{1, 1\}$ using radix 2 DIT FFT algorithm. (12 marks)

17. Realise the first order transfer function $H(z) = \frac{1}{1 - 0.4z^{-1}}$ and draw its quantization noise model. Also find the steady state noise power due to round off. Take no of bits $b = 4$. (12 marks)

Or

18. (a) For the first order system describe by the difference equation $y[n] - 0.6 y[n-1] = x[n]$, comment on the limit cycle behaviour. Also determine the dead band if the no of bits $b = 4$. (8 marks)

- (b) Explain the quantization effects in FFT algorithms. (4 marks)

19. Discuss the application of DSP in

(i) Speech processing.

(ii) Channel Vocoder.

(iii) Homomorphic Vocoder. (12 marks)

Or

20. With neat block diagram explain how audio signal is reproduced in a CD player. (12 marks)

(5 × 12 = 60 marks)