

G 6872

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Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, APRIL 2011

Sixth Semester

Branch—Computer Science and Engineering

PC AND PC BASED SYSTEMS (R)

(Regular/Improvement/Supplementary)

Time : Three Hours

Maximum : 100 Marks

Part A

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

1. What is Motherboard ? Explain its applications.
2. What is the need for power supply ? Explain.
3. What are Clusters ? Explain.
4. What is Ultra DMA ? Explain in detail.
5. Explain the principle of CD technology.
6. What is the principle of holographic storage in detail ?
7. Differentiate static from Dynamic RAM.
8. Explain the flat memory model in detail.
9. Explain in detail about ISA.
10. Explain the features of Parallel port.

(10 × 4 = 40 marks)

Part B

*Answer all the questions.
Each question carries 12 marks.*

11. Draw a neat block diagram of SMPS and explain its principle of operation in detail.
- Or*
12. Differentiate SMPS from linear mode power supply. Explain the difference.
 13. Explain the Disk magnetic properties in detail.

Or

Turn over

14. Explain the following in detail :—

- (a) CHS addressing ;
- (b) Logical block addressing.

(6 + 6 = 12 marks)

15. Explain the principles of Magneto optical drives in detail with neat diagrams.

Or

16. Explain the following in detail :—

- (a) Buffers ;
- (b) CD RAM ;
- (c) Accesstions.

(3 × 4 = 12 marks)

17. Explain the principle of segmented addressing and cache memory in detail.

Or

18. Explain in detail the memory management in personal computers.

19. Explain the structure and application of USB in detail.

Or

20. Give an account on :

- (a) EIDE ;
- (b) ATA ;
- (c) AGP.

(3 × 4 = 12 marks)

[5 × 12 = 60 marks]

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Name.....

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 an 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]

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B.TECH. DEGREE EXAMINATION, APRIL 2011

Sixth Semester

Branch : Computer Science and Engineering

PROJECT MANAGEMENT AND QUALITY ASSURANCE (R)

(Regular/Improvement/Supplementary)

Time : Three Hours

Maximum : 100 Marks

Part A

All questions carry equal marks.

Part A is compulsory

Write short notes on :

1. Capital expenditure.
2. Two methods of demand forecasting
3. IRR & Benefit cost ratio.
4. ISO 9000 series.
5. Cluster sampling.

(5 × 4 = 20 marks)

Part B

1. (a) The traditional form of Organisation is not suitable for the Management of Projects. Comment.

Or

- (b) What are the phases and stages of project life cycle?
2. (a) Explain NPV. ABC International is evaluating a project whose expected cash flows are as follows:

Year	Cash Flow
0	Rs. (1000,000)
1	100,000
2	200,000
3	300,000
4	600,000
5	300,000

What is the NPV of the project, if the discount rate is 4% for the entire period?

Or

Turn over

- (b) Explain how a project is technically analysed?
- 3. (a) What are the important indices used to measure the performance of a project?
Or
- (b) Write short note on project management software.
- 4. (a) Explain the concept of TQM & PDCA cycle of TQM.
Or
- (b) Explain quality system procedures.

(4 × 20 = 80 marks)

Part A

All questions carry equal marks.
Part A is compulsory.

Write short notes on

- 1. Capital expenditure
- 2. Bill of Materials (BOM)
- 3. Quality sampling
- 4. Two methods of human forecasting
- 5. ISO 9000 series

10 × 3 = 30 marks

Part B

1. (a) The traditional form of Organisation is not suitable for the Management of Projects.
Comment.

Or

(b) What are the phases and stages of project life cycle?
2. (a) Explain NPV, AEC, Investment or evaluating a project whose expected cash flows are as follows:

Year	Cash Flow
0	Rs 13000000
1	1000000
2	2000000
3	3000000
4	4000000
5	5000000

Write a note on NPV of the project. (10 marks)

10 marks

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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]

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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.

Or

12. Explain DIV and SPAN tags.
13. Write notes on document object model.

Or

14. Explain dynamic updating of pages with JAVA script.

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)

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B.TECH. DEGREE EXAMINATION, APRIL 2011

Sixth Semester

Branch : Computer Science and Engineering

ALGORITHM ANALYSIS AND DESIGN (R)

(Regular/Improvement/Supplementary)

Time : Three Hours

Maximum : 100 Marks

Answer all questions.

Part A

Each question carries 4 marks.

1. Briefly explain about pseudo code convertors.
2. Define omega notation of a function $f(n)$.
3. Write short note on Strassen's Matrix Multiplication.
4. Write a technical note on "Binary Search".
5. What are the various types of knapsack problems.
6. Briefly explain about optimal storage on tapes.
7. Define principle of Optimality.
8. Write short note on K^{th} smallest elements.
9. Discuss about bounding functions.
10. What is FIFO ? Compare FIFO and LIFO.

(10 × 4 = 40 marks)

Part B

Each full question carries 12 marks.

11. Find the Asymptotic Upper Bound for the function,

(a) $T_1(n) = 2T\left(\frac{n}{2}\right) + n^2.$

(b) $T_2(n) = 3T\left(\frac{n}{2}\right) + n.$

(12 marks)

Or

Turn over

12. Write short notes on :

- (a) Properties of an algorithm. (4 marks)
 (b) Recursive Algorithms. (4 marks)
 (c) Asymptotic Notations. (4 marks)

13. Design an algorithm to evaluate the upper and lower bounds in heap sort. Explain with typical example. (12 marks)

Or

14. Explain about merge sort and quick sort complexities. (12 marks)

15. Explain Kruskal's Algorithm and its complexity. (12 marks)

Or

16. Discuss an algorithm to find minimum cost spanning tree and its application and complexity. (12 marks)

17. Explain the travelling salesman problem. Suggest a suitable solution for that. (12 marks)

Or

18. Discuss about oracles and Adversary Arguments. (12 marks)

19. Describe how 15 puzzle problem is solved. (12 marks)

Or

20. Explain an algorithm to solve the "N" Queens problem. (12 marks)

[5 × 12 = 60 marks]