8. Write a note on Associative Memory.

7. Illustrate the virtual memory concept.

6. Explain about DMA transfer.

5. Handshaking

4. Strobe control

3. Write about synchronous data transfer.

2. Write about asynchronous data transfer.

1. Write about addressing modes of 8086.

10. Write about addressing modes of 8085.

9. Draw and explain the pin out diagram of

8. Explain about multiplexers.

7. Explain about decoders.

6. Use AND Gates only. \( Y = AB + \overline{AC} \) Implement the following Boolean expression

5. Prove Demorgan's Theorem

4. Write about a parallel binary subtractor

3. Using Karnaugh map simplify the following

2. Write about BCD adder with neat sketch

1. Perform the binary addition, multiplication and division.

(10) Write about BCD adder with neat sketch.

(10) Explain about DMA transfer.

(10) Write a note on Associative Memory.

(10) Illustrate the virtual memory concept.

(10) Handshaking

(10) Strobe control

(10) Synchronous data transfer.

(10) Asynchronous data transfer.

(10) Addressing modes of 8085.

(10) Addressing modes of 8086.

(10) Explain about multiplexers.

(10) Explain about decoders.

(10) Use AND Gates only. \( Y = AB + \overline{AC} \) Implement the following Boolean expression

(10) Prove Demorgan's Theorem

(10) Write about a parallel binary subtractor

(10) Perform the binary addition, multiplication and division.

(10) Write about BCD adder with neat sketch.

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(10) Addressing modes of 8085.

(10) Addressing modes of 8086.

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(10) Explain about decoders.

(10) Use AND Gates only. \( Y = AB + \overline{AC} \) Implement the following Boolean expression

(10) Prove Demorgan's Theorem

(10) Write about a parallel binary subtractor

(10) Perform the binary addition, multiplication and division.

(10) Write about BCD adder with neat sketch.

(10) Explain about DMA transfer.

(10) Write a note on Associative Memory.
(b) Explain about BCD adder with neat diagram.

(iii) \( \frac{68.75 \times 23.6}{68.75 \times 23.6 + 23.6} \)

(i) \( 68.75 \times 23.6 \)

(b) Perform the binary addition, multiplication, and division.

(i) \( 6 \times 20 = 120 \)

(iii) \( \frac{68.75 - 23.6}{68.75 - 23.6 \times 23.6} \)

Time: Three hours

Maximum: 100 marks

DIGITAL FUNDAMENTALS AND ARCHITECTURE

Information Technology

Part III — Computer Application/Computer Science

First Year

DECEMBER 2010

B.C.A/B.S. DEGREE EXAMINATION

(For the candidates admitted from 2007 onwards)

07 DSC 0/07/DIT 02

P. Code: [07 DSCA 02]
1. Discuss about formatted and unformatted I/O
(6 × 20 = 120)
All questions carry equal marks.
Answer any FIVE questions.

Time: Three hours
Maximum: 100 marks

DATA STRUCTURES AND C PROGRAMMING

Part III — Computer Science/Information Technology
First Year
B.Sc. Degree Examination, December 2010

(to the candidates admitted from 2007 onwards)

Q.P. Code: [07 DSC 02]
Reg. No.: 528

5. Write short note on:
   (a) Queue
   (b) Enumerated data type
   (c) Stack

3. Write about Preprocessor directive.

4. Discuss in detail about singly linked list.
(a) Also prove them.
(b) Write the dual of the above identities and prove the following identities:

\[ A \cup (A \cap B) = A \cap (A \cup B) \]

\[ A \cap (A \cup B) = A \cap B \]

(1) Write the principle of duality.

(2) Find the eigenvalues and eigen vectors of the matrix:

\[
\begin{bmatrix}
  2 & 4 & 3 \\
  6 & 7 & 4 \\
  8 & 6 & 2
\end{bmatrix}
\]

Answer any FIVE questions.

Maximum: 100 marks

Time: Three hours

Computer Science

B.Sc. Degree Examination, December 2010

For the candidates admitted from 2007 onwards

G.P. Code: [07] DSC 03/07 DIL 01

Ref. No.: 79
(6) Prove that the relation $R$ defined on the set $A \times B$ by $(x, y) \in R$ if and only if $x + y = 0$ is an equivalence relation.

(7) Let $R, S : A \rightarrow B$. $S \circ R$ be two relations.

(8) Let $R$ and $S$ be two relations on $A$ and $B$. Which are one-to-one and onto. Prove that $S \circ R$ is also one-to-one and onto.

(9) If $f : A \rightarrow B$, $g : B \rightarrow C$ and $f \circ g$ are two functions, prove that $\forall a \in A$, $\exists c \in C$ such that $g \circ f(a) = c$. 

(10) Show that for any two sets $A$ and $B$,

$$A \cup B = (A \cap B) \cup (A \cap B)$$
(a) Write the algorithms of traversing a binary tree.
(b) Define a binary tree.
(c) (i) Complete graph $K_n$.
(ii) Isomorphic graphs with examples.
(iii) Digraph.
(iv) Graph.

8. Write the definitions of
2. Write a C++ program to find the sum of number (12 + 8).

3. Write a C++ program to demonstrate the use of constructor and destructor.

4. Discuss the different types of inheritance.

5. Explain the concept of polymorphism.

6. Write a program to copy the content of one file to another file.

7. Write a program on matrix operations using parameters.

8. Write a note on the following:
   - (a) Operations
   - (b) Virtual functions
   - (c) Friend functions
   - (d) Inline functions

9. Write a note on the concept of function overloading.

10. Explain the concept of function overloading with an example about looping statements.

Time: Three hours

Maximum: 100 marks

Part II — Information Technology

Second Year

B. Sc. Degree Examination December 2010

For the candidates admitted from 2007 onwards

Q.P. Code: [07 DIT 04]

Re: No.
(b) Compiler compilers.

(a) Code optimization of a program statement

4. Disease:

3. Purpose macro processor.

2. What is a macro processor? Explain the General

1. What is an assembler? Explain the basic

(5 x 20 = 100)

Answer any FIVE questions.

Maximum: 100 marks

Part III — Information Technology

Second Year

B.Sc. Degree Examination, December 2010.

(for the candidates admitted from 2007 onwards)

Q.9. Code: [07 DIIT 056]

Reg. No.: ____________________
5. Write the guidelines that are to be followed to avoid "Efficiency Considerations." (10)

4. a. Explain the concept of Pesticides. (10)

3. Describe the formal specification technique, "Relational Notations" in detail. (20)

2. a. Discuss on phased life cycle model. (8)

1. Explain software project complexity. (20)

6. a. Explain the documentation guidelines in detail. (20)

7. Compare and contrast functional testing with system testing. (20)

8. Explain the following concepts: Software Verification for Quality Assurance. (20)

9. Write note on walkthroughs and inspections. (12)

Software Engineering
Part III — Information Technology
Second Year

B.Sc. Degree Examination, December 2010
(For the candidates admitted from 2007 onwards)

Q. Paper Code: 07 DIT 06

Reg. No. D147
(e) Explain the use of break.

(b) Discuss the looping structures in Java.

(c) Explain the data types in Java.

(d) Explain : (i) Telnet (ii) Browser.

(e) Discuss the structure of an HTML document.

(f) What is URI? Explain the components.

1. [6 × 20 = 120]

All questions carry equal marks.

Answer any FIVE questions.

Maximum : 100 marks

Time : Three hours

INTERNET AND JAVA PROGRAMMING

Part III — Information Technology

Second Year

B.S.C. Degree Examination, December 2010

(For the candidates admitted from 2007 onwards)

D 148

G.P. Code : [Q7 DIT 07]

Reg. No. :
What is the effect of Primitive class?

Write a Java program to create a class for 'Jen' and also write the main function to create an object and to store information about the name. Explain the purpose of the following:

- Thread priority
- User-defined exceptions
- Advantages of Java

Discuss:

What are wrapper classes? Explain.

Discuss the exception handling mechanism.

Discuss the primitive primitives with examples.

Discuss the Apple life cycle.

Suspended ( )
Sleep ( )
Join ( )

What is an Interface? Explain its use.

Bring out the differences between 'throw' and 'throws'.
4. Explain the functions of layers in OSI reference model.
3. Explain the various types of networking topologies.
2. Explain the various used media for data transmission.
1. Explain with examples the various techniques used for transmission error detection and correction.

(5 x 20 = 100)
All questions carry equal marks.

Answer any FIVE questions.

Time: Three hours
Maximum: 100 marks

PART III — INFORMATION TECHNOLOGY

PRINCIPLES OF DATA COMMUNICATIONS AND NETWORKS

B.S.E. DEGREE EXAMINATION, DECEMBER 2010
(For the candidates admitted from 2007 onwards)

G.P. Code: [07 DT 08]

Reg. No.:
Part II — Information Technology
Third Year
B.Sc. Degree Examination, December 2010

1. Define a suitable structure for the following data

Customer name, address, bank name, etc.

2. Discuss the create table command with all its parts. Explain date, transaction amount, branch name, etc.

3. Explain the following with examples:
   - Create a cursor to read the records from the transaction table and to display them one by one.
   - What is a procedure? What is a function? Bring one.
   - Explain the transaction control commands.
   - Explain the following with examples:
     - DELETE
     - INSERT
     - UPDATE
     - What is de-normalization? Explain.
     - What is a component of a database system? Discuss.

4. Discuss the components of an ORACLE database.

5. Assume the attributes. Create an employee table and to display them one by one.

6. Discuss the components of a database system.

7. Discuss the SQL plus commands with examples.

8. Discuss the components of an ORACLE database.

9. Explain the different types of Oracle. What are their effects? Explain with examples:

   Branch code, transaction amount, branch name, A/C no, balance, transaction type, customer name, address, bank name, cust-id

10. What is de-normalization? Explain with examples.

11. Discuss the components of an ORACLE database system.

12. Discuss the create table command with all its parts. Explain date, transaction amount, branch name, etc.

13. Explain the following with examples:
   - Create a cursor to read the records from the transaction table and to display them one by one.
   - What is a procedure? What is a function? Bring one.
   - Explain the transaction control commands.
   - Explain the following with examples:
     - DELETE
     - INSERT
     - UPDATE
     - What is de-normalization? Explain.
     - What is a component of a database system? Discuss.

14. Discuss the components of an ORACLE database.

15. Assume the attributes. Create an employee table and to display them one by one.

16. Discuss the components of a database system.

17. Discuss the SQL plus commands with examples.

18. Discuss the components of an ORACLE database system.

19. Explain the different types of Oracle. What are their effects? Explain with examples:

   Branch code, transaction amount, branch name, A/C no, balance, transaction type, customer name, address, bank name, cust-id

20. What is de-normalization? Explain with examples.

21. Discuss the components of an ORACLE database system.

22. Discuss the create table command with all its parts. Explain date, transaction amount, branch name, etc.

23. Explain the following with examples:
   - Create a cursor to read the records from the transaction table and to display them one by one.
   - What is a procedure? What is a function? Bring one.
   - Explain the transaction control commands.
   - Explain the following with examples:
     - DELETE
     - INSERT
     - UPDATE
     - What is de-normalization? Explain.
     - What is a component of a database system? Discuss.

24. Discuss the components of an ORACLE database system.

25. Assume the attributes. Create an employee table and to display them one by one.

26. Discuss the components of a database system.

27. Discuss the SQL plus commands with examples.

28. Discuss the components of an ORACLE database system.

29. Explain the different types of Oracle. What are their effects? Explain with examples:

   Branch code, transaction amount, branch name, A/C no, balance, transaction type, customer name, address, bank name, cust-id

30. What is de-normalization? Explain with examples.

31. Discuss the components of an ORACLE database system.
Write a Visual Basic program to read any number and display them in ascending order. 

2. Explain the usage of the file and edit menu.

I. Explain the properties of the form and its elements.

(a) Write a Visual Basic program to read any two numbers and add it.

(b) Write a Visual Basic program to read any five questions.

Maximum: 100 marks

Time: Three hours

VISUAL PROGRAMMING

Part III — Information Technology

Sixth Semester

B.Sc. Degree Examination, December 2010

(for the candidates admitted from 2007 onwards)

D 151

Reg. No.: 07 DRL 101

R6
Explain the following control:

(1) Calculate using control array.

(2) Write a Visual Basic program to create a

(3) Explain.

(4) How to create button using picture box?

(5) What is a Grid? Explain its properties.

(6) Explain with an example.

(7) Explain the List and Combo Boxes controls.

(8) Explain the Subroutines and Functions with examples.

(9) Explain any three built-in functions with

(10) Explain the Input and message box.

(11) Explain the data types in Visual Basic.
1. Explain the working of E-mail sending protocols.
2. Describe the concept of UDP.
3. Explain the concepts of IP address and IP datagram.
4. Internet working.
5. Discuss the various issues with regard to IP
6. Explain the layered architecture of OSI model.

(6 × 20 = 120)

All questions carry equal marks.

Answer any FIVE questions.

Maximum : 100 marks

Time : Three hours

WEB TECHNOLOGY

Part III — Information Technology

Third Year

B.Sc. DEGREE EXAMINATION, DECEMBER 2010

For the candidates admitted from 2007 onwards

Q.P. Code : [07 DIT 11]

Reg. No. : .......