**27**

DE–4707

DISTANCE EDUCATION

B.Sc. (I.T.) DEGREE EXAMINATION, DECEMBER 2008.

LAB III — APPLICATION PROGRAMS

(2007 onwards)

Time : Three hours Maximum : 100 marks

Examiner has to select ONE question each from Word, Excel and Access.

One question is given to each Student by lot.

* 1. Breakup of marks
	2. MS Word 25
	3. Excel 35
	4. Access 40
	5. 100

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UNIT I – MS WORD (25% marks)

1. Create a form letter that informs the customer about the date of maturity of a deposit amount in a commercial bank and request the customer for renewal. Using Mailmerge.

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1. Prepare the first page of your record note book with picture insertion and alignment.

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1. Prepare a news report using two columns, insert a picture in the first column and make the text flow around it.

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UNIT II – MS EXCEL (35% marks)

1. Create the following Inventory Work Sheet in Excel :

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item No. | Name  | Price  | Quantity Purchased | Issued | On hand |
| 204 | Bolts  | 2.00 | 400 | 104 | 400–104 = 296 |

* 1. Create datas for 10 items.
1. Create a work sheet in MS Excel with following columns :

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Employee No.1104 | Emp. NameRaju | Designation Manager or Asst ManagerorAsst ClerkorLabour | Basic Pay8,000or6,000or4,000or3,500 | HRA(20% of Basic pay) |
| DA | LIC | PF | Gross Pay | Net Pay |
| (30% of Basic Pay) | 450or350or200or100 | (Minimum 10% of Basic Pay) | (Basic + DA + HRA) | (Gross Pay – LIC – PF |

* 1. Create atleast datas for 5 employees and Draw the bar chart between emp. Name and Net pay.

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1. The following were the observations made in certain Experiments for the values

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *x* : | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| *y* : | 10 | 30 | 45 | 25 | 15 | 28 | 40 | 32 | 15 | 35 |

* 1. Find the Correlation Coefficient between *x* and *y*.

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UNIT III – MS ACCESS (40% marks)

1. Create Student table with the following fields : Reg No, Name, Marks in English, Tamil and Maths. Write a query to display Reg. No, Name and total of all the three subject marks.

1. Create Student Table with fields REGNO, I1, E1, I2, E2 (internal and external marks in Two subjects) and table Subject with fields SCODE1, SNAME1, SCODE2, SNAME2 (Subject Code and Subject Names for Two Subjects).
	1. Create a report to print mark sheets for all the students in the following format.

ALAGAPPA UNIVERSITY

STATEMENT OF MARKS

* 1. REG NO : 05314004

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| SUB CODE | SUBJECT NAME | INT | EXT | TOTAL | RESULT |
| 101 | SYSTEM ANALYSIS | 20 | 40 | 60 | PASS |
| 102 | COMPILER DESIGN | 21 | 27 | 48 | FAIL |
|  |  |  | TOTAL | 108 |  |

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1. Create two tables SALES1, SALES2 and join them to produce a Third Table SALES3.

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DE–4706

DISTANCE EDUCATION

B.Sc. (IT) DEGREE EXAMINATION, DECEMBER 2008.

Lab II — JAVA PROGRAMMING

(2007 onwards)

Time : Three hours Maximum : 100 marks

ONE question should be given to each candidate by lot.

Answer both subdivisions (a) and (b).

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1. (a) Write a Java program to multiply two given matrices.

* 1. (b) Write a Java program for Applets to draw the various polygons.

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2. (a) Write a Java program for Vector manipulation.

* 1. (b) Write a program to arrange the given names in alphabetical order using command line arguments.

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3. (a) Write a Java programs illustrating the implementation of polymorphism.

* 1. (b) Write Java programs illustrating overloading and overriding methods in Java.

4. (a) Write a Java program to count number of words, lines, characters, copy and display in a given text.

* 1. (b) Write a Java program to write applets LAWT concepts. Create simple program.

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5. (a) Write a Java program to illustrate the implementation of abstract class.

* 1. (b) Create and manipulate labels, text fields, text areas and panels.

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6. (a) Write a Java program to find the factorial of a given number using recursion, with a usage of FOR loop.

* 1. (b) Write a Java program to read and write the data using Random Access File.

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**16**

DE–4705

DISTANCE EDUCATION

 B.Sc. (I.T) DEGREE EXAMINATION, DECEMBER 2008.

C AND DATA STRUCTURES — LAB

(2007 onwards)

Time : Three hours Maximum : 100 marks

One question should be given to each candidate by lot system.

Answer Both subdivision (a) and (b).

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1. (a) Write a C program to find the area of a circle.

 (b) A man is paid at the hourly rate of Rs. 15/- per hour for the first 45 hours worked. Thereafter, overtime is paid at 1.5 timer the hourly rate for the rent 25 hours and 2 times the hourly rate for farther hours worked per week, calculate print his gross weekly wage.

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2. (a) Write a ‘C’ program to calculate compound interest.

 (b) Write a C program that receives the data such as age and name of person to check the eligibility for voting. Take the condition that if a person is more that 18 years old he is eligible to vote. Else display the number of years, he has to wait for voting.

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3. (a) Write a C program to calculate simple interest.

 (b) Write a C program to implement insert and delete operations on linked list structure.

4. (a) Write a C program to sort 10 numbers is ascending order.

 (b) Write a C program to implement push and POP operations on stack.

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5. (a) Write a C program to find square root, square and cube of any number.

 (b) Write a C program to rest 10 numbers is ascending order with naming of variable and the value before and after sorting.

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6. (a) Write a C program to concatenate two given strings and find the length of the concatenated string.

 (b) Write a C program to implement insert and delete operations on linked list structures.

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7. (a) Write a C program to find the biggest of 5 Nos. modify the program to find the biggest of 10 Nos.

 (b) Write a C program to find the factorial of a given number using FUNCTION declaration.

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8. (a) Write a ‘C’ program for linked list implementation of queue operations.

 (b) Write a ‘C’ program to sort 10 numbers in ascending order.

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9. (a) Write a C program to sort a set of elements using selection sort.

 (b) There are 10 students in an class. Their names and marks in three different subjects are given. If a student takes more than 40 marks in each subject, then he is declared ‘PASS’. Otherwise ‘FAIL’. Write a C program to do the above.

10. (a) Write a C program to input a basic pay and calculate gross pay and net pay

 Income :

 HRA = 15% of Basic pay

 DA = 90% of Basic pay

 Gross pay = Basic pay + DA + HRA.

 Deductions

 PF = 10% of Basic pay

 W charge = 200

 deductions = PF + W charge

 Net pay = Cross pay – deductions.

 (b) Write a C program to rest 10 numbers in ascending order.

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DE–4078

DISTANCE EDUCATION

B.Sc. (IT) DEGREE EXAMINATION, DECEMBER 2008.

APPLICATION PROGRAMS

(2007 onwards)

Time : Three hours Maximum : 100 marks

Answer any FIVE questions.

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

1. (a) Explain about task bar and its uses. (10)

 (b) What are the functions used to create, open and save a file in Ms-Office? (10)

2. (a) What are the functions used to edit a text? Explain.
 (8)

 (b) Explain about Table handling. (12)

3. (a) Explain in detail about Mail Merge. (10)

 (b) What are the functions used to copy a text? Explain.
 (5)

 (c) What are the ways used to create a table? Explain.
 (5)

4. (a) What is a chart? How to create and modify? Explain. (10)

 (b) Describe about building an Excel Database in detail.
 (10)

5. (a) What are the functions available in Ms-Excel? Discuss. (15)

 (b) Write a note on : Find and Replace Data. (5)

6. Explain the following :

 (a) Add or delete a slide. (5)

 (b) Color scheme. (5)

 (c) Moving from slide to slide. (5)

 (d) Create graph chart. (5)

7. (a) Describe the procedure for saving and naming the document. (8)

 (b) How to create a new Database and creating and saving a table in MS-ACCESS? Explain. (12)

8. (a) Explain about combine Excel Data and charts with Word Documents. (10)

 (b) What are the procedures used to insert Graphics? (5)

 (c) Write a note on: Zoom in and Zoom out pages. (5)

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DE-4077

DISTANCE EDUCATION

B.Sc. (Information Technology) DEGREE EXAMINATION, DECEMBER 2008.

ANALYSIS AND DESIGN OF INFORMATION SYSTEMS

(2007 onwards)

Time : Three hours Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

(5 × 20 = 100)

1. (a) Explain in detail about types of systems.

 (b) Describe in detail about MIS.

2. (a) Write a brief note on post-implementation and maintenance.

 (b) Illustrate about interpersonal and technical skills of system analyst.

3. (a) Describe about how to determine the user's information requirements.

 (b) Write a note on Interviews.

4. (a) Describe about Data Dictionary and Decision Tables.

 (b) Explain in detail about design methodologies.

5. (a) Discuss about input design.

 (b) Write a note on types of forms.

6. (a) Discuss about types of databases.

 (b) Write about structured walkthrough and system testing.

7. (a) Discuss about Quality Assurance.

 (b) Explain about training methods.

8. (a) Describe about conversion methods.

 (b) Briefly explain about the Evaluation process.

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DE–4076

**23**

DISTANCE EDUCATION

B.Sc. (IT) DEGREE EXAMINATION, DECEMBER 2008.

INTERNET PROGRAMMING

(2007 onwards)

Time : Three hours Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

1. (a) Explain the Network Topologies. (8)

* 1. (b) Explain the Transport and Application Layers in TCP. (12)

2. (a) Explain the various kinds of protocol in detail. (10)

* 1. (b) How to sending and receiving the E-mail? (10)

3. Write short notes on

* 1. (a) HTTP client request (5)
	2. (b) URL (5)
	3. (c) HTTP methods (5)
	4. (d) Creating Web Server (5)

4. (a) Explain the application of Internet in school level.
 (10)

* 1. (b) Explain the E-Commerce. (10)

5. Explain the Java data types in detail. (20)

6. (a) Explain the type conversion and casting in detail.
 (10)

* 1. (b) Write a java program to add any two order of matrix. (10)

7. (a) Explain the constructors with an example program.
 (10)

* 1. (b) What is applet? Explain. (10)

8. Explain any five string function in java. Give an example program. (20)

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DE–4075

DISTANCE EDUCATION

B.Sc. (Information Technology) DEGREE EXAMINATION, DECEMBER 2008.

DISCRETE MATHEMATICS

(2007 onwards)

Time : Three hours Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

1. (a) Find the principal disjunctive and conjunctive normal forms of the formula



 (b) By using the indirect method of proof prove that,



2. (a) Show that  is a logically valid statement.

 (b) Show that .

3. (a) Show that .

 (b) Let *X* = {1, 2, 3, 4, 5, 6, 7} and *R* = {(*x*, *y*)/*x* – *y* is divisable by 3}. Show that *R* is a equivalence relation and draw the graph of *R*.

4. (a) Show that the intersection of two equivalence relations is an equivalence relation.

 (b) Show that for any set X, the power set of X is a partially ordered set under set inclusion.

5. (a) Let  and  where R is the set of real numbers given by  and *g*(*x*)*=*(*x* + 4). Find  and . State whether functions are injective.

 (b) Show that if  and  are invertible functions then



6. Let A, B be sets. Using characteristic function prove that

 (a) 

 (b) 

 (c) .

7. (a) Show that Q is a semigroup for the operation \* defined by



 (b) Let ({*x, y*}) be a semigroup where *xy* = *y*. Show that

 (i) *xy* = *yx*

 (ii) *yy = y.*

8. (a) Show that  is an abelian group.

 (b) State and prove Lagrange’s theorem.

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DE–4074

DISTANCE EDUCATION

B.Sc. (IT) DEGREE EXAMINATION, DECEMBER 2008.

DATA STRUCTURES USING ‘C’

(2007 onwards)

Time : Three hours Maximum : 100 marks

Answer any FIVE questions.

 (5 × 20 = 100)

1. (a) List and explain branching statements available in C.

 (b) Discuss on data types, constants, variable declaration in C.

2. (a) What is the purpose of loop? Explain various looping statements in C with example.

 (b) Write a C program to find the sum and average of ‘n’ numbers.

3. (a) Discuss on user defined function and its various formats.

 (b) Write in detail about Macros.

4. (a) What is Recursion? Explain with example.

 (b) Explain syntax and purpose of Multidimensional array.

5. (a) Describe how to open a file, update its contents and close a file.

 (b) Discuss on pointers in C.

6. (a) Explain stack data structure and its primitive operation Algorithms.

 (b) Implement stack data structure in C and explain.

7. (a) Explain singly linked list and its primitive operations algorithms.

 (b) Implement doubly linked list in C and explain.

8. (a) Discuss on trees and their applications.

 (b) Explain how will you represent list as binary tree.

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**13**

DE–4073

DISTANCE EDUCATION

B.Sc. (IT) DEGREE EXAMINATION, DECEMBER 2008.

DIGITAL COMPUTER FUNDAMENTALS

(2007 onwards)

Time : Three hours Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

1. (a) Explain about Gray code and BCD code.

 (b) Convert the following numbers from the given base to the other bases indicated.

 (i) 22510 to binary

 (ii) 110101112 to octal

 (iii) 6238 to decimal

 (iv) 2AC516 to decimal.

2. (a) Perform the subtraction with the following unsigned binary numbers by taking the 2’s implement of the
subtrahend :

 (i) 11010 – 10000

 (ii) 11010 – 1101

 (iii) 100 – 11000

 (iv) 1010100 – 1010100.

 (b) Prove the following :

 (i) 

 (ii) 

 (iii) 

 (iv) .

3. (a) Obtain the simplified expression in sum of products for the following Boolean functions :

 (i) 

 (ii) 

 (iii) .

 (b) Design Decoder with three input lines and explain its function.

4. (a) Simplify  and implement it with NAND gate.

 (b) Design 1 × 4 demultiplexer and explain it’s functions.

5. (a) Design a Half and full adder. Explain their functions with suitable example.

 (b) Design and explain the function of JK flip-flops with suitable example.

6. (a) Design a 3-bit binary counter and explain it’s functions.

 (b) Explain the purpose of shift registers.

7. (a) Explain different methods for data representation.

 (b) How computers are classified? Explain.

8. Write short notes on :

 (a) Use of complements

 (b) Don’t care term.

 (c) Gated flip-flops

 (d) Main memory.

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