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Roll No. 1042736

S-4329

**Diploma in Computer Application
(First Semester) EXAMINATION, 2010**

ESSENTIALS OF INFORMATION TECHNOLOGY

(DCA - 101)

Time : Three Hours]

[Maximum Marks : 100

[Minimum Pass Marks : 33

Note : Question No. 1 is compulsory. Attempt any four questions from the remaining. All questions carry equal marks.

1. Choose appropriate answer from the following. 20

(i) Which of the following is not an output device ?

- (a) Touch Screen
- (b) Printer
- (c) Flat Screen
- (d) Scanner

(ii) Which of the following devices have a limitation that we can only information to it but cannot erase or modify it ?

- (a) Floppy Disk
- (b) Hard Disk
- (c) Tape Drive
- (d) CDROM

P. T. O.

- (iii) Which of the following storage devices can store maximum amount of data ?
- Floppy Disk
 - Hard Disk
 - Compact Disk
 - Magneto-optic Disk
- (iv) The programs which are as permanent as hardware and stored in ROM is known as :
- Hardware
 - Software
 - Firmware
 - ROMware
- (v) Memory is made up of :
- Set of wires
 - Set of circuits
 - Large number of coils
 - All of these
- (vi) Primary memory stores :
- Data alone
 - Programs alone
 - Results alone
 - All of these
- (vii) EPROM can be used for :
- Erasing the contents of ROM
 - Reconstructing the contents of ROM
 - Erasing and reconstructing the contents of ROM
 - Duplicating ROM

- (viii) Which device can understand difference between data and programs ?
- Input device
 - Output device
 - Memory
 - Microprocessor
- (ix) Algorithm and Flowchart help us to :
- Know the memory capacity
 - Identify the base of a number system
 - Direct the output to a printer
 - Specify the problem completely and clearly
- (x) Memory unit is one part of :
- Input device
 - Control unit
 - Output device
 - Central processing unit
2. (a) What is random access memory (RAM) ? Discuss the different types of random access memories. 10
- (b) Differentiate between fixed length words and variable length words. 10
3. (a) Write an algorithm to find the greatest of two numbers. 10
- (b) Distinguish between high level language and assembly language. Give relevant examples. 10
4. (a) What do you understand by multi-user operating system ? 10
- (b) Write any ten different features of Windows operating system. 10



[4]

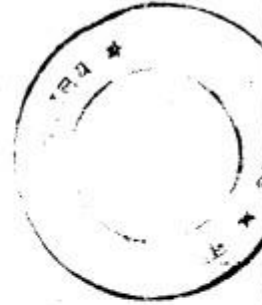
Sort the given values using quick sort : 10

65 70 75 80 85 60 55 50 45

Whether Linked list is linear or Non-linear data structure ? 10

- (a) What are the services available on Internet ? Explain. 10
- (b) What is JAVA and what can JAVA technology do ? 10
7. (a) What are the benefits of E-mail ? How can you protect your e-mails from virus ? 10
- (b) Distinguish between Micro, Mini, Mainframe and Super Computer. 10

Roll No. 1041920



S-4330

1041920

**Diploma in Computer Application
(First Semester) EXAMINATION, 2010**

ESSENTIALS OF OFFICE AUTOMATION

(DCA-102)

Time : Three Hours]

[Maximum Marks : 100

[Minimum Pass Marks : 33

Note : All Units are compulsory. Attempt any two parts from each Unit. All parts carry equal marks.

Unit-I

1. (a) What is match operation ? Specify its features.
- (b) What do you understand by Water mark feature in Word ? Describe.
- (c) Describe various aspects of Print Control in MS-WORD 2007.

Unit-II

2. (a) Point out the features of electronic worksheet.
- (b) Give five mathematical and statistical functions available in MS-Excel.
- (c) What do you understand by Macro ? Explain its types.

P. T. O.

Unit - III

3. (a) How a record in a database file can be accessed and retrieved ?
- (b) Write short notes on the following :
 - (i) Programming Preliminaries
 - (ii) Browsing
 - (iii) Report making
- (c) Clearly specify the features of indexing and sorting.

Unit - IV

4. (a) Define system and specify its features.
- (b) Explain feasibility report with a case study.
- (c) Write short notes on the following :
 - (i) Cost benefit ratio
 - (ii) Water life cycle model

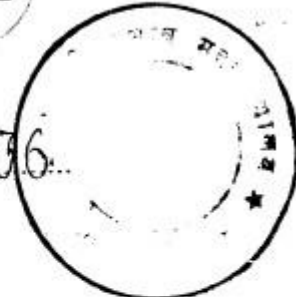
Unit - V

5. (a) What do you understand by entity ? Differentiate between weak entity and strong entity.
- (b) Write short notes on the following :
 - (i) System Implementation
 - (ii) Evaluation
- (c) Discuss the benefits of computer aided software engineering.

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Roll No. 1046706



S-4331

**Diploma in Computer Application
(First Semester) EXAMINATION, 2010**

PROGRAMMING IN C LANGUAGE

(DCA-103)

Time : Three Hours]

[Maximum Marks : 100

[Minimum Pass Marks : 33

Note : Answer any two parts from each question. All questions carry equal marks.

1. (a) What are different types of operators ? Explain 5 of them.
- (b) Explain the working of `printf ()` and `scanf ()` functions with their respective syntax and examples.
- (c) Explain the syntax and working of the following library functions :
 - (i) `pow()`
 - (ii) `getch()`
 - (iii) `exit()`
 - (iv) `getcav()`
2. (a) What is Function ? Write five built-in functions for string manipulation. What are the different ways to pass argument to the function ?

P. T. O.

- (b) Explain the syntax of the switch case construct. Write a menu driven 'C' program using switch case to take 2 integers as input and print the Sum, Difference or Product depending upon the choice provided by the user.
- (c) Write a recursive function to obtain first 25 numbers of a Fibonacci series. The following are few terms of Fibonacci series :

1 1 2 3 5 8 13 21 34 55

- 3. (a) How does an array definition differ from that of an ordinary variable ? What is a string ? How are multi-dimensional arrays defined ?
- (b) Write a C program to find sum of odd numbers and even numbers in an array of numbers.
- (c) Write a C program to calculate sum of all numbers in a given matrix using pointers.
- 4. (a) What is a structure ? How is it different from an array ? Write a 'C' program using a structure for information of books in a library having a member date as another structure.
- (b) Define a union time having members hour, minutes and seconds. Write a 'C' program to input a time (eg. 10 hr: 4 min: 30 seconds) and output in any one of the units only.
- (c) What are the various functions used for input and output into a binary file ? What is the significance of fseek() and ftell() function ?
- 5. (a) Explain different file handling functions in C.

- (b) Write a 'C' program to create a student file which has fields roll no., name, semester, branch and percentage. List all the students who secured 1st, 2nd and 3rd division.
- (c) What is an object model ? What are its benefits ? Explain the term abstraction and encapsulation with respect to OOP techniques.