

Seat No.	
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Total No. of Questions : 6]

[Total No. of Printed Pages : 2

[4186]-101

P. G. D. C. A. (Semester - I) Examination - 2012

FUNDAMENTALS OF INFORMATION TECHNOLOGY

(2008 Pattern)

Time : 3 Hours]

[Max. Marks : 70

Instructions :

- (1) Question Nos. 1 and 6 are compulsory.*
- (2) Attempt **any three** from the remaining.*

-
- | | |
|--|-------------|
| Q.1) (A) Define Computer. Discuss Generations of Computer. | [10] |
| (B) Explain NAND Logic Gate. | [04] |
| Q.2) (A) Explain any two Output Devices. | [07] |
| (B) Explain any two File Handling Functions. | [07] |
| Q.3) (A) What is Computer Language ? Explain various types of Computer Languages. | [07] |
| (B) Define Computer Network and explain LAN, MAN and WAN. | [07] |
| Q.4) (A) Compare features of Windows and Unix. | [07] |
| (B) Explain Memory Management Techniques - Segmentation, Paging. | [07] |
| Q.5) (A) Explain OSI Model. | [07] |
| (B) Explain any two Secondary Memory Devices. | [07] |

Q.6) (A) Solve the following :

[07]

(a) $(123)_8 = (?)_{10}$

(b) $(321)_{10} = (?)_2$

(c) $(AC)_{16} = (?)_{10}$

(d) $(101)_{10} = (?)_2$

(B) Write short notes : **(Any Two)**

[07]

(a) Virus

(b) ASCII Code

(d) E-mail

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Total No. of Questions : 7]

[Total No. of Printed Pages : 3

[4186]-102

P. G. D. C. A. (Semester - I) Examination - 2012

‘C’ PROGRAMMING

(2008 Pattern)

Time : 3 Hours]

[Max. Marks : 70

Instructions :

(1) Question No. 1 is compulsory.

*(2) Attempt **any five** from the remaining.*

Q.1) What will be the outputs ? Give explanations : (Any Four) [10]

(a) `#define CUBE(X) (X*X*X)`

```
main()
{
    int a, b;
    a, b = 3;
    a = CUBE(b++);
    printf("%d %d", a, b);
}
```

(b) `void main()`

```
{
    int x = 3;
    if (x)
        printf("yes\n");
    else
        printf("no\n");
}
```

```

(c) void main( )
    {
        char str[] = "PGDCM"
        printf("%o\n%s", str, strrev(str, 2));
    }

(d) main()
    {
        int a, b;
        *b = &a;
        while(*b! = 100)
            printf("%d %d", x, y);
    }

(e) main()
    {
        char s[ ] = "man";
        int i;
        for(i = 0, s[i]; i++)
            printf("\n%c %c %c%c", s[i], *(s + i), *(i + s), i[s]);
    }

```

Q.2) (A) Write a program to print numbers from 1 to 10 and their squares :

[06]

```

1      1
2      4
3      9
...
10     100

```

(B) Write a Program to add contents in an Array.

[06]

- Q.3)** Write a program to read source file and copy alternate words in another file. [12]
- Q.4)** (A) Write a program to accept two dimensional array of integers, calculate sum of each column and display sum of column. [06]
- (B) Write a program to accept a string and reverse the string. [06]
- Q.5)** Accept any integer number entered through command prompt. Write a program to check that number is prime or not. [12]
- Q.6)** Write a program to implement data customer of MSEB in the city having the following information :
- name of customer, area number, no. of units, bill amount. (Calculate amount considering rate = Rs. 5 per unit.) Print customer name whose bill amount is maximum. [12]
- Q.7)** Short notes : [12]
- (a) Storage Class
 - (b) Recursion
 - (c) 'C' Preprocessor
 - (d) Call by Reference
-

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Total No. of Questions : 6]

[Total No. of Printed Pages : 2

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P. G. D. C. A. (Semester - I) Examination - 2012

ELEMENTS OF INFORMATION TECHNOLOGY (EIT)

(2005 Pattern)

Time : 3 Hours]

[Max. Marks : 80

Instructions :

- (1) Q. No. 1 must be answered.*
- (2) Attempt **any four** from the remaining.*
- (3) Figures to the right indicate full marks.*
- (4) Draw neat diagram wherever required.*

-
- Q.1)** (A) Explain logic gates with diagrams. Draw Truth Tables assuming 2 inputs. **[05]**
- (B) Explain different types of Softwares. **[05]**
- (C) Solve : **[10]**
- (a) $(100100)_2 / (100)_2 = ()_{10}$
 - (b) $(10101)_2 + (153)_8 = ()_{10}$
 - (c) $(1FF)_{16} = ()_2$
 - (d) $(2A)_{16} * (15)_8 = ()_{10}$
 - (e) $(28)_{16} / (12)_8 = ()_2$

- Q.2) (A)** Simplify the following : **[08]**
- (a) $XYZ + XYZW + XZ$
 - (b) $ABC + \overline{A}BC + A\overline{B}C + ABC + A\overline{B}\overline{C} + ABC$
 - (c) $XY (\overline{X} + \overline{Y}) + \overline{X}\overline{Y} (X + Y)$
 - (d) $\overline{X} \cdot \overline{Y} = ?$
- (B)** Explain 'RAID' Technology. **[07]**
- Q.3) (A)** Explain 'BIU' in 8086 Microprocessor. **[08]**
- (B)** Describe Magnetic Tape as Storage Medium. **[07]**
- Q.4) (A)** Explain OSI 7 Layer Model. **[08]**
- (B)** Explain various features of Mini, Micro and Main Frame Computers. **[07]**
- Q.5) (A)** Describe Instruction Execution Cycle. Draw block diagram. **[08]**
- (B)** Explain Concept of 'CISC' and 'RISC'. **[07]**
- Q.6) Write short notes : (Any Three)** **[15]**
- (a) MS-Dos vs Unix
 - (b) Viruses and Worms
 - (c) Word, Register and Accumulators
 - (d) Present Status Word (PSW)
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Total No. of Questions : 6]

[Total No. of Printed Pages : 1

[4186]-12

P. G. D. C. A. (Semester - I) Examination - 2012

PRINCIPLES AND PRACTICES OF MANAGEMENT (PPM)

(2005 Pattern)

Time : 3 Hours]

[Max. Marks : 80

Instructions :

- (1) Answer **any four** questions.
- (2) All questions carry equal marks.

-
-
- Q.1)** Define Management. Compare Principles of Administrative Management with Scientific Management. **[20]**
- Q.2)** Define Process of Decision-making. Explain different Environments under which decisions are to be taken. Explain with suitable examples. **[20]**
- Q.3)** Define Planning. Explain nature, importance and scope of Planning with respect to Modern Management. **[20]**
- Q.4)** Discuss Concept of Authority and Responsibility. Is Delegation of Authority necessary ? Justify your answer. **[20]**
- Q.5)** What do you mean by Co-ordination ? How does it differ from Co-operation ? Why Co-ordination is called Essence of Management ? **[20]**
- Q.6)** Short notes : **(Any Four)** **[20]**
- (a) MBO
 - (b) Informal Organisation
 - (c) TQM
 - (d) Tall Structure and Flat Structure
 - (e) Decentralisation

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Total No. of Questions : 3]

[Total No. of Printed Pages : 3

[4186]-13

P. G. D. C. A. (Semester - II) Examination - 2012

‘C’ PROGRAMMING

(2005 Pattern)

Time : 3 Hours]

[Max. Marks : 80

Q.1) Write programs for the following : (Any Six)

[6x8=48]

(a) Print the following pattern using loops :

1

232

34543

4567654

(b) Write a recursive function power(a, b) to find power of a raised to b.

(c) Write a program to accept 10 numbers into an array. Sort numbers in ascending order.

(d) Write a program to accept values in a 5×5 matrix and find count of positive, negative and zero values from the matrix.

(e) Write a function that returns vowel count of a string.

(f) A record contains name of cricketer, his age, number of test matches that he has played and average runs that he has scored in each test match. Create an array of structures to hold records of 25 such cricketers and display cricketer with highest number of test matches played.

(g) Write a program to read a text file and copy its lowercase equivalent to another file.

Q.2) Explain in brief : (Any Three)

[12]

- (a) Switch Case Statement
- (b) Static
- (c) Pointers
- (d) Standard Library String Functions

Q.3) Explain output :

[4x5=20]

(a) `main()`

```
{
    int r, s, N[] = {1, 9, 2, 8, 3, 7, 4, 6, 5};
    for(r = 7; r >= 2; r -=2)
        printf("%d", N[r-1]);
}
```

(b) `void main()`

```
{
    int a = -10, b, c = 5;
    b = a % - 6;
    b = (b ? c/c : 0);
    printf("b = %d", b);
}
```

(c) `void main()`

```
{
    int x, y, z;
    x = y = z = -1;
    z = ++x && ++y || ++z;
    printf("x = %d y = %d z = %d", x, y, z);
}
```

```
(d) void main()  
{  
    int x;  
    for(x = 2; x < 10; x++)  
    { switch(x)  
        { case 2 :  
            printf("H");  
            continue;  
          case 3 :  
            break;  
          case 4 :  
          case 5 :  
            printf("I");  
            break;  
          default : printf("!");  
        }  
    }  
}
```

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Total No. of Questions : 7]

[Total No. of Printed Pages : 2

[4186]-15

P. G. D. C. A. (Semester - III) Examination - 2012

OBJECT ORIENTED PROGRAMMING WITH JAVA (OOPJ)

(2005 Pattern)

Time : 3 Hours]

[Max. Marks : 80

Instructions :

- (1) Q. No. 1 is compulsory.
- (2) Solve **any four** from the remaining.

Q.1) Justify your answer :

[16]

- (a) Which methods are used in string class ?
 - (i) equals()
 - (ii) charAt()
 - (iii) reverse()
 - (iv) lastIndexOf()
- (b) Which of the following are not primitive data types ?
 - (i) 'basic java'
 - (ii) 'B'
 - (iii) true
 - (iv) 789
- (c) Which method will give size of the array ?

If array is `Int[] a = {12, 45, 34, 66};`

 - (i) `a.length;`
 - (ii) `a[].length();`
 - (iii) `a.size();`
 - (iv) `a.length();`

[4186]-15

1

P.T.O.

- Q.2)** Write an application which will accept a number from command line. If number is not divisible by 7, then throw “notDivisibleBy7” user defined Exception. **[16]**
- Q.3)** Write an awt application which will accept a number from user prints a table of that number in TextArea. **[16]**
- Q.4)** Write a threaded application which will print numbers from 1 to 50 and a – n characters. **[16]**
- Q.5)** Write Emp Class with empno, ename, salary as instance variables and print() as method which will print instance variables. Write 2 constructors. **[16]**
- Q.6)** Write an application which will accept a file name. Then display how many vowels are in the file. Do necessary validations ? **[16]**
- Q.7)** Write short notes : **(Any Two)** **[16]**
- (a) Data Types in Java
 - (b) Applet Life Cycle
 - (c) Object Oriented Concepts
 - (d) Overloading and Overriding
 - (e) Thread Life Cycle
-

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Total No. of Questions : 4+8]

[Total No. of Printed Pages : 2

[4186]-16

P. G. D. C. A. (Semester - III) Examination - 2012

UNIX

(2005 Pattern)

Time : 3 Hours]

[Max. Marks : 80

Instructions :

- (1) *Section - I and II is compulsory.*
- (2) *All questions are compulsory.*
- (3) *Figures to the right indicate full marks.*

SECTION - I

Q.1) Solve the following : [10]

- (a) Display all the lines from the file EMP having word 'Thomas'.
- (b) To combine f1 f2 f3 files into f4 file.
- (c) To find file 'chapter 1' through the root and print location.
- (d) Displays free disk space in the files system.
- (e) To listed files in descending order of size, with the largest file listed first and the smallest file listed last.

Q.2) Write short notes : [10]

- (a) Text Processing
- (b) Pipelines and Filtering

Q.3) Explain any five commands : **[10]**

- (a) kill
- (b) ps
- (c) mv
- (d) mkdir
- (e) chmod
- (f) is

Q.4) Explain differences with write and mail commands. **[05]**

SECTION - II

Q.1) Write a Shell Script which accepts file name from keyboard and check whether file exists in current directory. If the file exists, print type and all permissions of the file. Give proper displays. **[10]**

Q.2) Write an AWK Script which prints average of all marks (2nd field) in the file 'Result.dat'. **[05]**

Q.3) Write AWK Script which prints given number in reverse order. **[05]**

Q.4) Write a Shell Script to find factorial of given number. **[05]**

Q.5) Write a short note on Shell Variables. **[05]**

Q.6) Explain Loops in Shell Programming with examples. **[05]**

Q.7) Write a Shell Script to Copy File 1 to File 2 with proper validations. **[05]**

Q.8) Write an AWK Script to accept m and n from the user and to find m^n . **[05]**

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Total No. of Questions : 7]

[Total No. of Printed Pages : 2

[4186]-17

P. G. D. C. A. (Semester - IV) Examination - 2012

SOFTWARE ENGINEERING

(2005 Pattern)

Time : 3 Hours]

[Max. Marks : 80

Instructions :

- (1) Q. No. 1 must be answered.*
- (2) Attempt **any five** from the remaining.*
- (3) Draw neat diagrams wherever required.*
- (4) Neat diagrams carry marks.*

Q.1) A manufacturing company, having a strength of 450 employees, proposes to computerize pay-roll system for giving monthly salary.

HR Department sends employee details such as promotions, appointments, resignation etc. to Pay Section. Accounts Department sends earning and recovery details. Time-office sends attendance, overtime and leave details of employees to Pay Section.

Salary is calculated and pay slips are given on 5th of every month :

- | | |
|---|-------------|
| (a) Draw Context Level DFD | [06] |
| (b) Draw ERD | [06] |
| (c) Design Normalized Tables | [08] |
| (d) Design Pay Slip and Leave Application Formats | [10] |

Q.2) A Co-operative Bank accepts deposits from public for a period of 1, 2 and 3 years at the interest rate of 9%, 9.5% and 10% respectively. 1% additional interest rate is given to senior citizens. Minimum Deposit should be Rs. 5,000 and Maximum Rs. 50,000.

Design a Data Entry Screen for capturing details of Deposit. [10]

Q.3) Explain System Development Life Cycle. [10]

Q.4) Draw Decision Tree for the following case : [10]

Invoice Amount	Sales Tax	Discount
Less than 10,000	Nil	Nil
10,001 - 20,000	2%	4%
20,001 - 40,000	3%	5%
40,001 and above	3%	6%

Q.5) Write short notes : (Any Two) [10]

- (a) Elements of System
- (b) Functional Decomposition Diagram (FDD)
- (c) Skills a System Analyst must Possess

Q.6) Explain Spiral Model of System Design. [10]

Q.7) Compare Open and Close System, with example. [10]

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Total No. of Questions : 7]

[Total No. of Printed Pages : 2

[4186]-18

P. G. D. C. A. (Semester - IV) Examination - 2012

BUSINESS APPLICATION

(2005 Pattern)

Time : 3 Hours]

[Max. Marks : 80

Instructions :

(1) Question No. 1 is compulsory.

*(2) Solve **any four** from the remaining.*

Q.1) Write short notes : (Any Four)

[20]

- (a) Sales Analysis
- (b) Bin Card
- (c) Earnings and Deductions from Salary
- (d) Ratio Analysis
- (e) Trial Balance
- (f) Types of Accounts

Q.2) (A) Draw a Layout of Sales Invoice.

[06]

(B) What is Sales Analysis ? Explain its importance.

[09]

Q.3) What is Final Accounts ? Explain Accounts that are prepared in Final Accounts.

[15]

- Q.4)** (A) What are the various Methods of Material Issue ? [08]
(B) Draw a Layout of Delivery Note. [07]
- Q.5)** What is Bill of Materials (BOM) ? Describe BOM Processing. [15]
- Q.6)** Draw layout of the following : (Any Three) [15]
- (a) Trial Balance
 - (b) Stores Ledger
 - (c) Goods Receipt Note
 - (d) Debtors Aging Report
 - (e) Goods Receipt and Inspection Report (GRIR)
- Q.7)** Describe Front Office Functions of a 3 Star Hotel. What are the precautions the Manager should take before printing Bill for the Customer ? [15]
-

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Total No. of Questions : 6]

[Total No. of Printed Pages : 2

[4186]-201

P. G. D. C. A. (Semester - II) Examination - 2012

VISUAL BASIC

(2008 Pattern)

Time : 3 Hours]

[Max. Marks : 70

Instruction :

All questions are compulsory.

Q.1) Explain important properties of the following controls : (Any Five) [20]

- (a) Textbox
- (b) Commandbutton
- (c) Scrollbar
- (d) Label
- (e) Checkbox
- (f) Picturebox
- (g) Radiobutton

Q.2) (A) Explain with example use of Control Array. [05]

(B) Explain with example use of Dynamic Array. [05]

Q.3) Write a function to calculate maturity amount on the given principal amount (pamt) for given number of years(n) and at a given rate(r) : [10]

Formula : $\text{mamt} = \text{pamt}(1 + 1/r)^n$

Q.4) Write a procedure which will accept an array of ten numbers and will return sorted array. [10]

Q.5) (A) Take a textbox and a timer. After every two seconds the background colour will change continuously. **[05]**

(B) Accept 10 numbers from User. Print maximum and minimum of them. **[05]**

Q.6) Write short notes : (Any Two) **[10]**

(a) Data Types in VB

(b) MDI

(c) Date Functions

(d) Loop used in VB

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Total No. of Questions : 7]

[Total No. of Printed Pages : 2

[4186]-202

P. G. D. C. A. (Semester - II) Examination - 2012

JAVA

(2008 Pattern)

Time : 3 Hours]

[Max. Marks : 70

Instructions :

- (1) Q. No. 1 is compulsory.*
- (2) Solve **any four** from the remaining.*
- (3) All questions carry equal marks.*

Q.1) Solve the following :

[14]

- (a) Which statements are true ?
 - (i) Static Method can call Non-static Methods in the Class.
 - (ii) Class can contain both Static and Non-static Methods and Variables.
 - (iii) All Methods in the Class are passed “this” parameter when called.
 - (iv) This reference is used to call another constructor.
- (b) Where notify() method is defined ? Select correct options :
 - (i) Thread class
 - (ii) Object class
 - (iii) Applet class
 - (iv) Runnable interface
- (c) Select true statements :
 - (i) main() method can be overloaded.
 - (ii) Constructor return nothing.
 - (iii) New key word is used, call constructor.
 - (iv) Constructor can be declared as private.

[4186]-202

1

P.T.O.

(d) When thread will die ? (Select correct answer)

- (i) Execution of run() method ends.
- (ii) sleep() is called.
- (iii) wait() is called.
- (iv) Execution of thread's constructor ends.

Q.2) Write Class Adder which has Overloaded Methods : **[14]**

int sum(int, int), double sum(double, double), int sum(int, int, int),
double sum(int, double), double sum(double, int, int), string sum(string,
string)

Q.3) Write an awt application which will have a button with caption "Catch Me". When user will try to click on the button, the button, should be moved to new random position. **[14]**

Q.4) Write a threaded applet which will display circle with different colours. Colour will change after 1 second. Accept radius of the circle as parameter. **[14]**

Q.5) Write an application which will accept 2 file names from command line. Then copy contents of file 1 to other file. Do necessary validations ? **[14]**

Q.6) Write an application for Bank with instance variables acno, name, balance. Instance Methods deposit(amt), withdraw(amt). If balance is less then 500, then throw user defined exception "insufficient balance". **[14]**

Q.7) Write short notes : (Any Two) **[14]**

- (a) Object Oriented Concepts
- (b) Access Modifiers
- (c) Hash Table
- (d) Difference between Overloading and Overriding
- (e) Applet

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Total No. of Questions : 7]

[Total No. of Printed Pages : 2

[4186]-301

P. G. D. C. A. (Semester - III) Examination - 2012

SOFTWARE ENGINEERING

(2008 Pattern)

Time : 3 Hours]

[Max. Marks : 70

Instructions :

- (1) *Question No. 1 must be answered.*
- (2) *Attempt **any five** from the remaining.*
- (3) *Draw neat diagram wherever required.*
- (4) *Neat diagrams carry marks.*

Q.1) A Co-operative Bank accepts deposits from public for a period of 1, 2 and 3 years at the interest rate of 9%, 9.5% and 10% respectively. 1% additional interest rate is given to senior citizens. Minimum deposit should be Rs. 5,000 and maximum 50,000.

- (a) Draw Context Level DFD [06]
- (b) Draw ERD [06]
- (c) Design Normalized Tables [08]

Q.2) Design the following reports to be generated from Hospital Management System :

- (a) Bill given to patient while getting discharge (with all treatments and charges) [05]
- (b) Patient Admission Chart (patient details floor/ward/roomwise) [05]

Q.3) Explain System Development Life Cycle. [10]

Q.4) Draw Decision Table. [10]

Income Tax is computed for salaried persons as follows :

- If salary is $< 1,00,000$ then no tax.
- If salary is $\geq 1,00,000$ and $< 1,50,000$ then 10% tax.
- If salary is $\geq 1,50,000$ and $< 2,00,000$ then 20% tax.
- For salary $\geq 2,00,000$ then 30% tax.
- For physically disabled person 10% rebate in tax.

Q.5) Write short notes : (Any Two) [10]

- (a) Role of Software Engineer
- (b) Functional Decomposition Diagram (FDD)
- (c) Data Dictionary

Q.6) Explain Prototyping Method of Software Development with example. [10]

Q.7) Explain Fact Finding Methods. [10]

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Total No. of Questions : 5]

[Total No. of Printed Pages : 2

[4186]-302

P. G. D. C. A. (Semester - III) Examination - 2012

ORACLE

(2008 Pattern)

Time : 3 Hours]

[Max. Marks : 70

Instructions :

- (1) Q. Nos. 1 and 5 are compulsory.
- (2) Solve **any two** from the remaining.
- (3) Figures to the right indicate full marks.

Q.1) Consider the following table structure to write SQL queries : **[20]**

Emp Table

empno number(3), ename varchar2(30), sal number(4), comm number(3), job varchar2(10), deptno number(2), joindate date, address varchar2(30), mgr number(3).

Dept Table

deptno number(2), dname varchar2(30), location varchar2(30)

- (a) Display managers staying in Pune city.
- (b) List employee name and his manager name.
- (c) Display all employees who joined organisation in the month of March.
- (d) Display name of the department having highest no. of employees.
- (e) Display managers having salary more than Rs. 5,000.
- (f) Display departmentwise sorted employee list.
- (g) List employees working in SALES Department.
- (h) Display name of the person getting highest salary.
- (i) Display name of the employees not getting commission.
- (j) Show employee name, salary, department name and job for department no. 10.

- Q.2)** (A) Write PL/SQL block which will accept a number and print table of that number. [10]
(B) Explain use of Alter Statement. [10]
- Q.3)** (A) Explain a stored procedure which will accept empno as parameter and will return his salary. [10]
(B) Write a user defined function which will accept deptno and will return no. of employees in that department. [10]
- Q.4)** (A) Explain with suitable example exception handling. [10]
(B) Explain how sub-queries are used with examples. [10]
- Q.5)** Write short notes : **(Any Two)** [10]
(a) Select Statement
(b) Data Types
(c) Aggregate Functions
(d) Constraints
-

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Total No. of Questions : 5]

[Total No. of Printed Pages : 2

[4186]-401

P. G. D. C. A. (Semester - IV) Examination - 2012

DATA STRUCTURES AND ALGORITHMS

(2008 Pattern)

Time : 3 Hours]

[Max. Marks : 70

Instructions :

- (1) Write structure definitions.
- (2) Answer all sub-questions of a question at one place.

Q.1) (A) Convert the following infix form to its prefix form.

$A * B - C / D + E$

Show the contents of both the stacks at each step in a tabular form.

[08]

OR

(A) Write 'C' implementation for conversion of infix to prefix expression.

[08]

(B) Evaluate the following postfix form :

$ABC + * D / E -$ where $A = 2, B = 3, C = 4, D = 5, E = 1$.

Show contents of stack at each step in a tabular form.

[07]

OR

(B) Write 'C' implementation for evaluation of postfix expression.

[07]

Q.2) (A) Write a function that returns count of all nodes in a binary tree.

[08]

OR

(A) Give steps for sorting the following numbers using Quick Sort :

13 10 2 6 5 4

[08]

- (B) Write a function to delete an element from a linear queue of characters implemented as a linked list. [07]

OR

- (B) Write a function for in-order and pre-order traversal of Binary Search Tree. [07]

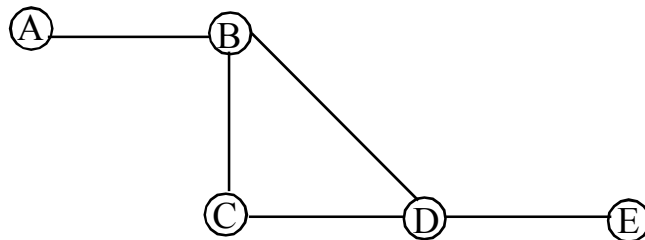
- Q.3)** (A) Compute row major and column major address of the member $a[10][20]$ of a 2-d array $a[30][30]$ where base address of the array is 1000 and each member occupies 2 bytes of memory. [08]

- (B) Write a function that prints elements of a linked list of integers in reverse order. [07]

OR

- (B) Write a function that returns sum of data of all nodes in a doubly linked list. [07]

- Q.4)** Consider the following graph : [15]



- Write adjacency matrix.
- Write adjacency list.
- Generate output of Breadth First Search (BFS) when starting vertex is 1.
- Generate output of Depth First Search (DFS) when starting vertex is 1.
- Write indegree of each vertex.

- Q.5)** Design Huffman's Tree for the following message : [10]

Communication

What kind of tree is a Huffman's Tree ?

Seat No.	
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Total No. of Questions : 6]

[Total No. of Printed Pages : 1

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P. G. D. C. A. (Semester - IV) Examination - 2012

**PRINCIPLES AND PRACTICES OF MANAGEMENT AND
ORGANISATIONAL BEHAVIOUR**

(2008 Pattern)

Time : 3 Hours]

[Max. Marks : 70

Instructions :

- (1) Q. No. 1 is compulsory.*
- (2) Solve **any three** from the remaining.*
- (3) Figures to the right indicate full marks.*

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- Q.1)** (A) What is Planning ? Explain different steps in Planning Process. **[10]**
(B) What do you understand by Motivation ? Explain difference between Theories of Motivation by Herzberg and Maslow. **[15]**
- Q.2)** Define Process of Decision-making. Explain different Environments under which decisions have to be taken. Explain with suitable examples. **[15]**
- Q.3)** What is Leadership ? “Leaders are born and not made.” Discuss. **[15]**
- Q.4)** Define Co-ordination. Explain its nature and scope in detail. **[15]**
- Q.5)** What is Organisation Structure ? Explain different types of Organisations with their merits and demerits. **[15]**
- Q.6)** Write short notes : **(Any Two)** **[15]**
- (a) Transactional Analysis
 - (b) Johari Window
 - (c) Team Building
 - (d) Decentralisation vs. Centralisation
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