

Seat No.	
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Total No. of Questions : 6]

[Total No. of Printed Pages : 2

**[4189]-101**

**P. G. D. C. M. (Semester - I) Examination - 2012**  
**ELEMENTS OF INFORMATION TECHNOLOGY AND**  
**OFFICE AUTOMATION**  
**(2008 Pattern)**

Time : 3 Hours]

[Max. Marks : 70

**Instructions :**

- (1) Question No. 1 is compulsory.
- (2) Solve **any four** from the remaining.
- (3) Figure to the right indicate full marks.

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- Q.1) (A) Convert :** **[04]**
- (a)  $(153)_{10} = (?)_8$
- (b)  $(464)_{16} = (?)_2$
- (B) Explain Boolean Algebra Rules. **[05]**
- (C) Explain with example use of Flowchart and Algorithm. **[05]**
- Q.2) (A) Explain Mail-merge Facility in MS-Word.** **[07]**
- (B) Differentiate between Batch Processing and On-line Processing. **[07]**
- Q.3) (A) What is Computer ? Explain with block diagram.** **[07]**
- (B) Explain MS-Outlook as Personal Information Manager. **[07]**
- Q.4) (A) Explain HDD as Storage Medium.** **[07]**
- (B) Discuss any one Input and any one Output Device. **[07]**

**Q.5)** Explain File Organisation and Accessing Techniques. **[14]**

**Q.6)** Write short notes : **(Any Two)** **[14]**

(a) Application Software and System Software

(b) Computer Languages

(c) Operating System Functions

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Seat No.	
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Total No. of Questions : 4]

[Total No. of Printed Pages : 3

**[4189]-102**

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

**PROGRAMMING USING VISUAL BASIC  
(2008 Pattern)**

**Time : 3 Hours]**

**[Max. Marks : 70**

***Instruction :***

*All questions are compulsory.*

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**Q.1) Give output for the following Section of Code and explain :  
(Any Five)**

**[20]**

- (a) `dim str As String`  
`str = "I am doing PGDCM"`  
`str = StrConv(str, 2)`  
`print str`
- (b) `dim check As Integer`  
`check = StrComp("aB", "a", vbBinaryCompare)`  
`print check`  
`print(cbool(check))`
- (c) `dim d As Date, a`  
`d = DateSerial(2011, 4, 19)`  
`print d`  
`d = DateAdd("Q", 2, d)`  
`print d`  
`a = DatePart("m", d)`  
`print a`

**[4189]-102**

**1**

**P.T.O.**

- (d) Print Asc(Chr(74))
- (e) Dim i, k  
k = 65  
For i = 1 To 5  
    Print Space(i) + Chr(k)  
Next i
- (f) dim mystr@  
print VarType(mystr)  
print right("Model Dell", VarType(mystr))

**Q.2) Name properties for the following controls : (Any Five) [05]**

- (a) Contents of label to be fixed.
- (b) Data in Listbox should be sorted.
- (c) To fit picture in the image box.
- (d) To display maximized window at runtime.
- (e) To apply a graphical effect to button.
- (f) To fix length of the textbox.

**Q.3) Write Sectional Codes for the following : (Any Four) [20]**

- (a) To print minimum number from an array having 10 elements.
- (b) Select font name from Listbox and change font name of Textbox.
- (c) Accept a string and a character. Print occurrence of that character in the string.
- (d) Accept Name and Percentage of a Student and display his/her grade in a textbox.
- (e) Take a textbox and two Buttons. Accept a number. Write the following code to :
  - (i) Check whether the number is odd or even.
  - (ii) Check whether the number is divisible by 5.

**Q.4) Write short notes : (Any Five)**

**[25]**

- (a) Mathematical Functions with Examples
  - (b) Menu Editor
  - (c) Input and Message Box
  - (d) Controls in Microsoft Common Control 6.0
  - (e) IDE in Visual Basic
  - (f) Scope of Variables
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Seat No.	
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Total No. of Questions : 7]

[Total No. of Printed Pages : 3

**[4189]-103**

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

**INTRODUCTION TO C++**

**(2008 Pattern)**

**Time : 3 Hours]**

**[Max. Marks : 70**

**Instructions :**

- (1) *Question Nos. 1 and 7 are compulsory.*
- (2) *Solve **any four** from Q. Nos. 2 to 6.*

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**Q.1) Consider the following programs and explain what will be the output ? [15]**

```
(a) class Item{
    int itemld;
    public:
    void print(int);
};
void Item::print(int id){
    itemld = id;
    cout<<itemld;
}
void main(){
    Item itm;
    int id;
    cin>>id;
    itm.itemld = id;
    cout<<itm.itemld;
    itm.print(id)
}
```

```

(b) void main(){
    char name[5];
    name[0] = 'N';
    name[1] = 'I';
    name[2] = 'T';
    name[3] = '\0';
    name[4] = 'I';
    puts(name);
}

(c) void main(){
    int numb = 23
    int val1, val2;
    val1 = numb<<3;
    val2 = val>>4;
    printf("%d%d", val1, val2);
}

(d) void main(){
    for(int i = 0; i< = 5; i++)
    {
        for(int j = i; j < = 5; j++);
        cout<<i<<endl;
    }
}

```

```
(e) int i = 11;
    void main(){
    int i = 25;
    cout<<"i"<<i<<endl;
    i = 55;
    cout<<"i"<<::i;
    }
```

**Q.2)** Write a 'C' program that will accept 10 numbers in array and will print array in ascending order. **[10]**

**Q.3)** Write a 'C' function that will accept a number from user and print binary equivalent of that number. **[10]**

**Q.4)** Write a 'C' program that will accept number from user and check whether number is prime or not using recursive function. **[10]**

**Q.5)** Consider the following structure and write a C<sup>++</sup> class program : **[10]**  
(empid, empsal as private member variables and calculatesal as private member function, empname, empaddress as public member variables and printData as public function.)

**Q.6)** Write a CPP program to print student information (name, rollno, marks for 3 subjects) in structure format. **[10]**

**Q.7)** Write short notes : **(Any Three)** **[15]**

- (a) Operators used in C<sup>++</sup>
- (b) In-line and Friend Functions in C<sup>++</sup> with Example
- (c) Loops in 'C'
- (d) Storage Classes in 'C'
- (e) Manipulators in C<sup>++</sup>



Seat No.	
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Total No. of Questions : 7]

[Total No. of Printed Pages : 2

**[4189]-201**

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

**WEB TECHNOLOGY INCLUDING  
E-COMMERCE, HTML AND BASIC JAVA**

**(2008 Pattern)**

**Time : 3 Hours]**

**[Max. Marks : 70**

*Instruction :*

- (1) *Q. Nos. 1 and 7 are compulsory.*
- (2) *Solve **any four** from Q. Nos. 2 to 6.*
- (3) *Write assumptions if any.*

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- 
- Q.1)** (A) What is E-commerce ? What are the benefits of E-commerce ? **[10]**  
(B) What is Inheritance ? Explain with example. **[05]**
- Q.2)** What are Constructors in Java ? Explain with example. **[10]**
- Q.3)** What is JavaScript ? What are the different types of Scripting Languages ? **[10]**
- Q.4)** Write a Java Code to design a class Employee with method calculate Salary. **[10]**
- Q.5)** Explain with example Encapsulation and Polymorphism in Java. **[10]**
- Q.6)** What is Web Hosting ? Describe steps of Web Hosting. **[10]**

**Q.7) Write short notes : (Any Three)**

**[15]**

- (a) XML
  - (b) Digital Certificate
  - (c) Layout Manager
  - (d) Applet Lifecycle
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Seat No.	
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Total No. of Questions : 6]

[Total No. of Printed Pages : 2

**[4189]-202**

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

**SOFTWARE ENGINEERING**

**(2008 Pattern)**

**Time : 3 Hours]**

**[Max. Marks : 70**

**Instructions :**

- (1) *Q. Nos. 1 and 6 are compulsory and solve any three from the remaining.*
- (2) *Make your own assumptions, whenever necessary.*

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**Q.1)** A College wants to computerize its Library. Members of Library give their information and get Library Card. Books are purchased from various Book Suppliers. Various transactions like books issue, book return, fine collection, claim for a particular book are carried out by the System. Various reports are generated and given to Management.

- (a) Draw Context Level Data Diagram **[05]**
- (b) Draw ERD **[05]**
- (c) Design Normalized File Layouts **[10]**

**Q.2)** Design a Payslip Format given to employees of an organisation with various earnings and deduction details. **[10]**

**OR**

**Q.2)** Design an Invoice Format for Sales Order System. **[10]**

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

**Q.4)** A Railway Reservation Office gives refund as under. Draw decision table for the following :

When Passenger cancels reservation ticket before 30 days, only 10% is cut from the total fare paid. If it is cancelled before 15 days, 20% is cut and if it is just on the same day but before one hour of departure of train, 50% is cut. And if cancelled after the departure of train, no refund is given. In addition to this, if passenger is ex-serviceman, only 5% cut is there irrespective of the period before departure of the train. If customer is senior citizen, only 10% is cut from the fare paid, irrespective of the period, before the departure of the train.

**[10]**

**Q.5)** Explain various skills required by System Analyst.

**[10]**

**Q.6)** Write short notes : **(Any Four)**

**[20]**

- (a) Interviewing Technique
- (b) Data Dictionary
- (c) Spiral Model
- (d) Elements of System
- (e) Prototype Model

Seat No.	
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Total No. of Questions : 6]

[Total No. of Printed Pages : 2

**[4189]-203**

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

**DATABASE MANAGEMENT SYSTEM AND ORACLE**

**(2008 Pattern)**

**Time : 3 Hours]**

**[Max. Marks : 70**

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**SECTION - I**

**Q.1)** State and explain Dr. E. F. Codd's Rule. **[15]**

**Q.2)** Define DBMS. Discuss advantages of DBMS. **[10]**

**OR**

**Q.2)** Discuss features of Hierarchical Network and Relational Database Model. **[10]**

**Q.3)** Write short notes : **(Any Two)** **[10]**

- (a) Features of MS-Access
- (b) Database Anomalies
- (c) Cardinality

**SECTION - II**

**Q.4)** Answer the following SQL queries based on the table given below :  
**(Any Five)** **[10]**

Employee(Empno, Ename, Salary, Joining\_date, Birth\_date, Job\_id)  
Job (Job\_id, Job\_desc, JobTitle, Max\_salary, Min\_salary)

- (1) Display employee name along with his job title.

**[4189]-203**

**1**

**P.T.O.**

- (2) Display details of employees earning salary greater than the minimum salary for their job.
- (3) Display total salary for each job.
- (4) Display employee name and age for employees who have joined after 1st January, 2010.
- (5) Display details of employees who are working as MANAGER.
- (6) Write a query to create employee table with appropriate constraints.

**Q.5)** State and explain Date Functions. **[10]**

**OR**

**Q.5)** What are Joins ? Explain with example different types of Joins. **[10]**

**Q.6)** Write short notes : **(Any Three)** **[15]**

- (a) Cursor for Loop
  - (b) Data Types in Oracle
  - (c) Tools of Oracle
  - (d) Set Operators
-