Total No. of Questions—**5**] [Total No. of Printed Pages—**2**

Seat No.	

[5478]-101

P.G.D.C.M. (I-Sem.)EXAMINATION, 2018

ELEMENTS OF INFORMATION TECHNOLOGY AND OFFICE AUTOMATION

(Windows Operating System and MS Office)

(2013 Pattern)

Time : Three Hours **Maximum Marks : 50**

N.B. **:—** (*i*) *All* questions are compulsory.

(*ii*) Figures to the right indicate full marks.

1. Answer the following (any *one*) : [10]

(*a*) Explain AND, NOT logical gates.

(*b*) Define hardware. Explain various input and output devices of computer.

2. Answer the following (any *one*) : [10]

(*a*) Define Software. Explain various functions of operating system.

(*b*) Define and draw dialogue box. Explain importance of menus and toolbar in windows.

3. Answer the following (any *one*) : [10]

(*a*) Define binary system. Explain 1's and 2's complement with example.

(*b*) Define data and information. Explain various types of data processing.

P.T.O.

4. Answer the following (any *one*) : [10]

(*a*) Explain various mathematical and Statistical functions used MS-Excel.

(*b*) Explain various function and features of Microsoft outlook.

5. Write short notes on (any *two*) [5+5]

(1) Interpreter

(2) MICR

(3) DOS.

Total No. of Questions—**5**] [Total No. of Printed Pages—**2**

Seat No.	

[5478]-102

P.G.D.C.M. (First Semester) EXAMINATION, 2018

102 : PROGRAMMING USING VISUAL BASIC

(2013 PATTERN)

Time : 3 Hours **Maximum Marks : 50**

N.B. **:—** (*i*) *All* questions are compulsory.

(*ii*) Figures to the right indicate full marks.

1. Explain the properties of controls (any *five*) : [10]

(*a*) Text Box

(*b*) Check Box

(*c*) Option Button

(*d*) File List Box

(*e*) Image Box

(*f*) File List Box.

2. Give differences (any *two*) : [10]

(*a*) Passing values byRef and ByVal

(*b*) Label and Text box

(*c*) ADO and ADODC control.

3. Solve (any *one*) : [10]

(*a*) Write a menu driven program for the following :

(*i*) Display the even numbers from an array

(*ii*) Concatenate two string.

(*b*) Write a program to display the prime numbers between 1 and 100.

P.T.O.

4. Explain the following (any *two*) : [10]

(*a*) Mouse and Keyboard events with examples

(*b*) Data type in VB

(*c*) Progress Bar.

5. Write short notes on (any *two*) : [10]

(*a*) Scope of the variable

(*b*) Check Box and Option Button

(*c*) Control arrays.

Total No. of Questions—**5**] [Total No. of Printed Pages—**2**

Seat No.	

[5478]-103

P.G.D.C.M. (I Sem.) EXAMINATION, 2018
INTRODUCTION TO C AND C++ LANGUAGE
(2013 PATTERN)

Time : Three Hours **Maximum Marks : 50**

N.B. **:—** (*i*) Q. Nos. **1** and **5** are compulsory.
(*ii*) Solve any *two* questions from **2** to **4**.
(*iii*) Figures to the right indicate full marks.

1. Write output of the following programs with explanation : [10]

```
#include<iostream.h>
#include<conio.h>
class base
{
public;
base() {cout<<"Const base\n";}
~base() {cout<<"dest base\n";}
};
class derived1:public base{
public;derived1() {cout<<"Const derived1";}
            ~derived(){cout<<"dest derived1";}
            };
class derived2:public derived1{
            public;derived2() {cout<<"Const derived2";}
                    ~derived2(){cout<<"dest derived2";}
                                        };
int main()
            {
            derived2 ob;
            clrscr();
            return 0;
            }
```

P.T.O.

2. Write a program in C to calculate sum of 5 subjects its average and find percentage. [10]

3. Write a program in C++ to find maximum and minimum of three numbers. [10]

4. Explain conditional statements in C. [10]

5. Write short notes on (any *four*) : [20]

(*a*) Friend functions in C++

(*b*) Constructors and destructors

(*c*) Arrays in C

(*d*) Inheritance

(*e*) Data types in C.

Total No. of Questions—**6**] [Total No. of Printed Pages—**2**

Seat No.	

[5478]-11

P.G.D.C.M. (I-Sem.) EXAMINATION, 2018

101 : ELEMENTS OF INFORMATION TECHNOLOGY AND OFFICE AUTOMATION

(Windows Operating Systems and M.S. Office)

(2008 Pattern)

Time : Three Hours **Maximum Marks : 70**

N.B. **:—** (*i*) Solve any *five* questions.

(*ii*) Figures to the right indicate full marks.

1. (*a*) Explain implementation of logical operations of AND, OR, NOT. [7]

(*b*) Differentiate between compiler and interpreter. [7]

2. (*a*) Define binary system. Explain 1's and 2's complement with example. [7]

(*b*) Define software. Explain application software's with examples. [7]

3. (*a*) Define Computer. Explain characteristics of computer. [7]

(*b*) What is Operating System ? Explain various functions of Operating system. [7]

4. (*a*) Explain mail merge process of Microsoft Word with example. [7]

(*b*) Explain various functions and features of Microsoft Excel. [7]

P.T.O.

5. (*a*) Define Virus. Explain various types of virus. [7]

(*b*) Define and draw dialogue box. Explain importance of menus and toolbar in windows. [7]

6. Write short notes on (any *two*) : [7+7]

(*a*) Difference between Primary and Secondary memory

(*b*) Importance of Microsoft Outlook

(*c*) Define RFID and MICR.

Total No. of Questions—**4**] [Total No. of Printed Pages—**3**

Seat No.	

[5478]-12

P.G.D.C.M. (First Semester) EXAMINATION, 2018

102 : PROGRAMMING USING VISUAL BASIC

(2008 PATTERN)

Time : 3 Hours **Maximum Marks : 70**

N.B. **:—***All* questions are compulsory.

1. Give output for the following section of code and explain (any *five*) : [20]

(*a*)
```
dim ch as integer
for ch=1 to 20 step 2
    if ch=10 then
        print ch
    end if
    print ch
next
```

(*b*)
```
dim x As String
x="best of luck"
print StrReverse(x)
print Mid(x, 1, 4)
print StrConv(x, vbProperCase)
print Format("63900.896", "#,###.##")
```

(*c*)
```
dim d as Date, a
d=DateSerial(2014,12,25)
print d
d=DateAdd("Q", 2, d)
print d
a=DatePart("m", d)
print a
```

P.T.O.

(*d*)
```
Dim m
m=542#
print TypeType(m)
print VarType(m)
print Len(m)
```

(*e*)
```
for i=20 To 10 Step –2
    select case(i)
        case 15 to 20
            print "*"
        case 10 to 14
            print "#"
    end select
next
```

(*f*)
```
A="12"
B="13"
print val(A) + val(B)
print 2* val(B)
```

2. Name the property for the following controls (any *five*) : [5]

(*a*) To change background colour of Form.

(*b*) To set range 0 to 100 on scroll bar.

(*c*) To display different types of files in FileListbox.

(*d*) To apply a graphical effect to Command Button.

(*e*) Restrict only 20 chars in text box.

(*f*) To assign image to picture box.

3. Write a sectional code for the following (any *four*) : [20]

(*a*) Invoke a colour dialogbox and give colour to textbox.

(*b*) Add 6th element in array where five elements are defined in array.

(*c*) Write a function to reverse digits by accepting a number from user.

(*d*) Take list box. allow multiple items selection. Take button "Show". On clicking, it should display selected items in message box.

(*e*) Write function to display Fibonacci series. Accept number of term as parameter.

4. Write short notes on (any *five*) : [25]

(*a*) Scope of the Variables—Public, Private

(*b*) Event driven programming

(*c*) Mathematical functions any *five*

(*d*) Data types in VB

(*e*) Looping in VB : for and while

(*f*) Menu.

Total No. of Questions—**7**] [Total No. of Printed Pages—**2**

Seat No.	

[5478]-13

P.G.D.C.M. (I Sem.) EXAMINATION, 2018
INTRODUCTION TO C AND C++ LANGUAGE
(2008 PATTERN)

Time : Three Hours **Maximum Marks : 70**

N.B. **:—** (*i*) Q. Nos. **1** and **7** are compulsory.
(*ii*) Write any *four* from Q. Nos. **2** to **6**.

1. Write output of the following programs with explanation. [10]

```
#include<iostream.h>
#include<conio.h>
class base
{
public;
base() {cout<<"Const base\n";}
~base() {cout<<"dest base\n";}
};
class derived1:public base{
public;derived1() {cout<<"Const derived1";}
            ~derived1(){cout<<"dest derived1";}
            };
            class derived2:public derived1{
            public;derived2() {cout<<"Const derived2";}
                        ~derived2(){cout<<"dest derived2";}
                  };
                  int main()
                  {
                  derived2 ob;
                  clrscr();
                  return 0;
                  }
```

P.T.O.

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

3. Write a program in C++ to display Fibonacci Series 0,1,1,2,3,5,8,13,21,34,.....) [10]

4. Write a C program that will print all Armstrong numbers between 1 to 500. [10]

5. Explain object oriented programming concepts with advantages.[10]

6. Explain different operators used in C. [10]

7. Write short notes on (any *two*) : [20]

(*a*) Inline and Friend Functions in C++ with example

(*b*) Looping statements in C

(*c*) Destructors in C++.

Total No. of Questions—**5**] [Total No. of Printed Pages—**2**

Seat No.	

[5478]-201

P.G.D.C.M. (II-Sem.)EXAMINATION, 2018

WEB TECHNOLOGY

(Including E-Commerce, HTML and Basic JAVA)

(2013 Pattern)

Time : Three Hours **Maximum Marks : 50**

N.B. **:—** (*i*) *All* questions are compulsory.

(*ii*) Figures to the right indicate full marks.

1. Answer the following (any *one*) :

(*a*) What is E-commerce ? What are the benefits of E-commerce ? [10]

(*b*) Explain the following terms : [10]

(1) Web Hosting

(2) Digital Certificate.

2. Answer the following (any *one*) :

(*a*) What is JavaScript ? What are the different types of Scripting Languages ? [10]

(*b*) Explain various uses of HTML and XML. [10]

3. Answer the following (any *one*) :

(*a*) Discuss Applet Life-cycle with the help of diagram. [10]

(*b*) What is interface in JAVA ? Explain with proper example. [10]

P.T.O.

4. Answer the following (any *one*) :

(*a*) Write Java code for displaying amount of simple interest. Accept principle, interest rate and duration in years from user. [10]

(*b*) Explain various Data types in JAVA. [10]

5. Write short notes on (any *two*) : [10]

(1) AWT Components

(2) HTML Tags

(3) XML.

Total No. of Questions—**5**] [Total No. of Printed Pages—**2**

Seat No.	

[5478]-202

P.G.D.C.M. (Second Semester) EXAMINATION, 2018

202 : SOFTWARE ENGINEERING

(2013 PATTERN)

Time : 2½ Hours **Maximum Marks : 50**

N.B. **:—**Figures to the right indicate full marks.

1. Attempt any *one* of the following : [10]

(A) Explain various phases of SDLC.

(B) ABC Bank offers various schemes of term deposites with attractive interest rates. Customer can make application for a Term Deposite A/c by filling a form mentioning amount and period. On verification of the form and payment of amount, account is opened and a Term Deposite Receipts is issued to customers. The interest is calculated half-yearly and credited to customer's account. If required, customer can request for premature withdrawal. On completion of TD period the maturity amount is paid to customer :

(*i*) Draw context level DFD

(*ii*) Draw E-R diagram.

2. Attempt any *one* of the following : [10]

(A) Explain rate of system analyst.

(B) Explain spiral model with diagram.

P.T.O.

3. Attempt any *one* of the following : [10]

(A) Explain waterfall model with suitable diagram.

(B) In a shopping mall, following scheme is introduced : If you are a regular customer, on every shopping of Rs. 5,000 and above, you will get one point. On collecting such 10 points you will get a free tour package. For points below 10, you will get a gift coupen. The collected points between 1 January, 2017 to 31st March, 2017 are only considered for this scheme.

Draw Decision tree and Decision Table for above case.

4. Attempt any *one* of the following : [10]

(A) Explain fact finding techniques in detail.

(B) Define normalization. Explain 1NF, 2NF, 3NF with an example.

5. Write short notes on (any *two*) : [10]

(A) 4GL

(B) Feasibility study

(C) Controlled De-normalization.

Total No. of Questions—**6**] [Total No. of Printed Pages—**2**

Seat No.	

[5478]-203

P.G.D.C.M. (II Sem.) EXAMINATION, 2018

203 : DATABASE MANAGEMENT SYSTEM AND ORACLE

(2013 PATTERN)

Time : Three Hours **Maximum Marks : 50**

N.B. **:—** (*i*) Q. No. **1** and Q. No. **6** are compulsory.

(*ii*) Attempt any *two* from the remaining.

1. Library staff, each having a name, title and office phone number, work on a number of projects, each with their own name, start date and projected end date. Any given project in only worked on by one staff member. Every staff member has a manager (except for the director). Who can have their own projects. Draw an entity relationship diagram for the above database : [10]

2. (*a*) State E.F. CODD's rule. [8]

(*b*) Explain different character functions with example. [7]

3. (*a*) What is DBMS ? What are the software modules in DBMS. [8]

(*b*) Explain DML commands with example. [7]

4. (*a*) Explain 1NF, 2NF and 3NF with example. [8]

(*b*) Explain different datatypes in MS-Access. [7]

P.T.O.

5. (*a*) Explain cursor in oracle. [8]

(*b*) What is RBDMS ? Explain the concept of domain, tuple and cardinality. [7]

6. Write short notes on (any *two*) : [10]

(*i*) Group Function

(*ii*) Set Operators

(*iii*) HDB *Vs.* NDB.

Total No. of Questions—**7**] [Total No. of Printed Pages—**2**

Seat No.	

[5478]-21

P.G.D.C.M. (II-Sem.)EXAMINATION, 2018

WEB TECHNOLOGY

(Including E-Commerce, HTML and Basic JAVA)

(2008 Pattern)

Time : Three Hours **Maximum Marks : 70**

N.B. **:—** (*i*) Question No. **7** is compulsory.

(*ii*) Solve any *five* from Q. Nos. **1** to **6**.

(*iii*) Write your assumptions if any.

1. How does E-commerce works ? What are the benefits of E-commerce ? [10]

2. Write a Java program to print the following pattern : [10]

1

2 3

4 5 6

7 8 9 10

11 12 13 14 15

3. Write a program to implement the Fibonacci series using for loop control structure. [10]

4. What is Web Hosting ? Describe steps of Web Hosting. [10]

5. What is encapsulation in JAVA ? Explain with proper example.[10]

P.T.O.

6. Explain Data types, variables, operators, and keywords in JAVA. [10]

7. Write short notes on (any *four*) : [20]

(1) Layout Managers

(2) JavaScript

(3) AWT Components

(4) WWW

(5) Access Modifiers.

Total No. of Questions—**7**] [Total No. of Printed Pages—**2**

Seat No.	

[5478]-22

P.G.D.C.M. (Second Semester) EXAMINATION, 2018

202 : SOFTWARE ENGINEERING

(2008 PATTERN)

Time : 3 Hours **Maximum Marks : 70**

N.B. **:—** (*i*) Solve any *five* questions.

(*ii*) Figures to the right indicate full marks.

1. A system needs to be designed for departmental store dealing in computer items. Members enjoy credit facility and can purchase items as and when he or she needs them. Store has several counters and one can almost get all kinds of consumer items after visiting these counters. He becomes member by paying initial membership amount and get credit cards. He has to pay his outstanding on quarterly basis system generates alert to these members. Defaulters are not allowed to purchase items until the default amount is cleared. Consider the different aspects of the above problem and model them appropriately.

(*a*) Draw first level DFD.

(*b*) Draw bill and membership form.

2. Explain various steps of system development life-cycle.

3. Explain prototyping model with suitable diagram.

P.T.O.

4. Explain role of system analyst in detail.

5. What is Normalization ? Explain its types in detail.

6. Explain fact-finding methods in brief.

7. Write short notes on (any *two*) :

(*a*) Mapping E-R model with database

(*b*) Decision tree

(*c*) Data flow diagram components.

Total No. of Questions—**6**] [Total No. of Printed Pages—**2**

Seat No.	

[5478]-23

P.G.D.C.M. (II Sem.) EXAMINATION, 2018

203 : DATABASE MANAGEMENT SYSTEM AND ORACLE

(2008 PATTERN)

Time : Three Hours **Maximum Marks : 70**

N.B. **:—** (*i*) Q. No. **1** and Q. No. **6** are compulsory.

(*ii*) Attmept any *three* from Q. No. **2** to Q. No. **5**.

1. Consider the following table structure : [15]

Student (rollno, sname, course, ccode, gid)

Company (ccode, cname, city)

Guide (gid, Gname)

Write SQL Queries for the following (any *five*) :

(*a*) Display all students of course "PGDCM".

(*b*) Display all students who are doing project in company having code as 92.

(*c*) Display the no. of companies from city 'Pune'.

(*d*) Replace the guide "Mr. Rajnish" with guide "Mr. Nilesh".

(*e*) Display no. of students from 'MCA' to whom company 'capgemini' is allocated.

(*f*) Display all students with company name and guide name.

P.T.O.

2. (*a*) State and explain the Codd's Rules. [8]

(*b*) What is Normalization ? Explain with an example. [7]

3. (*a*) Explain the architecture of DBMS. [8]

(*b*) State and explain various string functions in Oracle. [7]

4. (*a*) Explain the various DDL commands in Oracle. [8]

(*b*) Explain Hierarachical Data Modeling with neat diagram. [7]

5. (*a*) State and explain various data types used in MS-Access. [8]

(*b*) Explain the different types of Anomalies with example. [7]

6. Write short notes on (any *two*) : [2×5=10]

(*a*) DCL (Data Control Language)

(*b*) ALTER TABLE

(*c*) Users of DBMS

(*d*) Joins in Oracle.