



[3989] – 102

**P.G.D.C.M. (Semester – I) Examination, 2011**  
**102 : PROGRAMMING USING VISUAL BASIC**  
**(2008 Pattern)**

Time : 3 Hours

Max. Marks : 70

*Note: 1) All questions are **compulsory**.  
2) Figures to the **right** indicates **full** marks.*

1. Give the output for following section of code and explain (solve **any 5**) (5×4=20)

a) Dim d1, d2 as Date

d1 = Date

d2 = # 1/1/2008 #

Print DateDiff (“m”,d1, d2)

msgbox DateDiff (“d”, d1, d2)

b) Dim str1 As string

str1 = “university of pune”

Print strConv(str1, vbBinary)

c) Dim a, b as Integer

a = 10

b = 20

msgbox “Division =” & a/b

Print a\b

**P.T.O.**



d) Dim x as Integer

For x = 20 to 10 step – 2

    Select case (i)

        case IS-20

            print “\*”

        case 10-14

            print “#”

    End select.

Next

e) Dim x, y, z

    x = 10

    y = 10

    z = 11F (y < x, x, y)

    print z.

f) Dim j as Integer

    j = 1.66

    Print Round (j).

2. Explain use of the following property (**any 5**) :

(5×2=10)

- 1) Columns property of listbox.
- 2) Style property of command Button.
- 3) Wordwrap property of label.
- 4) Stretch property of Image.
- 5) Picture property of Picture.
- 6) Interval property of timer.



3. Write the sectional code for the following (solve **any 4**) : **(4×5=20)**

- a) Write a code to check whether give number prime or not.
- b) Write a user defined function which accepts a number and returns its reverse.
- c) Write a code which accepts names of 5 cities and add it in comboBox. After the user select a city from comboBox remove it from comboBox.
- d) Write a code which will create a menubar having options circle, rectangle and will give area of selected menu option with appropriate.

4. Write a short notes (**any 4**) : **(4×5=20)**

- a) Data types in visual basic
- b) Array
- c) Message Box and Input Box
- d) Menus
- e) Any 5 string functions
- f) Common dialog box.



[3989] – 103

**P.G.D.C.M. (Semester – I) Examination, 2011**  
**103 : INTRODUCTION TO C++**  
**(2008 Pattern)**

Time : 3 Hours

Max. Marks : 70

**Instructions :** 1) *Q. 1 and Q. 7 are compulsory.*  
2) *Write **any 4** questions from Q. 2 to Q. 6.*

1. Explain object oriented programming concepts with advantages. **15**
  2. Design an item class with following specifications : (itemId, price, rate as private member variables and calculate Amt (price \* rate) as private member function, show Data as public member function). Write overloaded constructors. **10**
  3. Write a C program to print first 300 prime numbers. **10**
  4. Write a C program to print pattern. **10**  
1  
10  
101  
1010  
10101
  5. Write a C++ array program that will accept 20 numbers from user and print following :  
Odd number count, Even number count. **10**
  6. Write a C program that will print all Armstrong numbers between 1 to 500. **10**
  7. Write short note on following (**any 3**) : **15**
    - a) Explain operators in C and C++
    - b) Explain constructors and destructors in C++
    - c) Explain Data types in C
    - d) Explain loops in C
    - e) Explain difference between C and C++.
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**P.G.D.C.M. (Sem. – I) Examination, 2011**  
**101 : ELEMENTS OF INFORMATION TECHNOLOGY & OFFICE**  
**AUTOMATION (Old) (2005 Pattern)**

Time : 3 Hours

Max. Marks : 80

*Note : 1) Q.1 is compulsory.*  
*2) Solve any 5 from the remaining.*

- |   |    |
|---|----|
| 1. a) Explain logical gates with the help of diagram.                     | 8  |
| b) Solve the following :  | 8  |
| i) $(153)_{10} = (?)_2 = (?)_8$   |    |
| ii) $(5A)_{16} = (?)_{10} = (?)_2$  |    |
| c) Explain in short ASCII, EBCDIC.  | 4  |
| 2. Explain functions of operating system.                                 | 12 |
| 3. a) Differentiate between batch processing and online processing.       | 6  |
| b) Explain following features of windows tool bar, title bar, status bar. | 6  |
| 4. Explain any two secondary storage devices.                             | 12 |
| 5. a) Explain text- editing commands used in MS-WORD.                     | 6  |
| b) Explain any 6 functions used in MS-EXCEL.                              | 6  |
| 6. What is File ? Explain file sorting and merging with example.          | 12 |
| 7. Write short notes on (any three) :                                     | 12 |
| a) MICR.  |    |
| b) MS-OUTLOOK.  |    |
| c) ROM and RAM.   |    |
| d) Computer virus.  |    |



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**P.G.D.C.M. (Sem. – I) Examination, 2011**  
**102 : VISUAL BASIC (Old)**  
**(2005 Pattern)**

Time : 3 Hours

Max. Marks : 80

***Instruction : All questions are compulsory.***

1. Give output for following section of code and explain (**any 4**) : **20**

A) Print 125 \ 10  
Print Fix (12.5)  
Print Round (-12.7)  
Print IIf(Chr(65) > Chr(80), Chr(80) Chr(65))  
Print asc("0")

B) Dim ch As Integer  
For ch = 1 To 20 Step 2  
If ch = 10 Then  
Print ch  
End If  
Print ch  
Next

C) A = "12"  
B = "13"  
Print Val (A) + Val (B)  
Print 2\* Val (B)

E) Note : Format for date is mm/dd/yyyy"  
i = #2/12/2008#  
Print DateAdd("d", 4, i)  
Print DateDiff("M", i, #5/31/2008#)

F) Dim check As Integer  
check = StrComp("A", "a", 0)  
Print check  
Print (CBool(Abs(check)))

**P.T.O.**



2. Which property should be changed to do the following (**any 5**) : **10**
- a) To change the background color of form.
  - b) User cannot make any change in textbox.
  - c) For caption to fit in the label perfectly.
  - d) Checkbox should be seen at runtime.
  - e) To change the name of the option button.
  - f) For checkmark to appear on the checkbox when selected.
  - g) To change the value of scrollbar when clicked on the scroll arrow.
3. Design interface (**any 3**) : **30**
- A) Write code to move the Label from top to bottom of the form and stop the movement when user clicks stop button.
  - B) Accept two listbox and a textbox. Do the following :
    - a) When user clicks on ADD button entered value goes in the first listbox.
    - b) When user clicks on TRANSFER button all contents of the first listbox gets transfers into second one.
    - c) Listboxes get cleared if CLEAR button pressed.
  - C) Print the prime numbers between 67 to 100.
  - D) Accept the marks for 3 subjects of a student. Write a code to print Grade of that student.
4. Write short note (**any 4**) : **20**
- A) Any 5 conversion functions with e.g.
  - B) Menu Editor
  - C) Common Dialog box
  - D) Data Environment
  - E) Scope of the variables.
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[3989] – 13

**P.G.D.C.M. (Sem. – I) Examination, 2011**  
**103 : DATABASE MANAGEMENT SYSTEM (DBMS) (Old)**  
**(2005 Pattern)**

Time : 3 Hours

Max. Marks : 80

*Note : All questions are compulsory.*

1. Solve **any two** : **15**
  - A) State advantages of DBMS
  - B) Explain DBMS Architecture
  - C) Explain different types of keys in DBMS.
2. Write short notes (**any three**) : **15**
  - A) Users in DBMS
  - B) Normalization upto 3NF
  - C) Relational and Non Relational database
  - D) Update Anomaly.
3. Solve **any three** : **15**
  - A) Explain switch... case in 'C'.
  - B) Explain difference between while and do.. While loop with example.
  - C) Explain strlen and strcmp functions with example.
  - D) Explain Arrays in 'C'.
4. Solve **any two** : **15**
  - A) Write a program to print the following pattern :  
1  
1 1  
1 1 1  
1 1 1 1
  - B) Write a program which will display the length of a given string.
  - C) Write a program to print first 100 odd numbers.
5. Write a function which will accept a number from user and print sum of its digits. **10**
6. Write a program which will print string in reverse order. **10**





[3989] – 201

**P.G.D.C.M. (Sem. – II) Examination, 2011**  
**201 : WEB TECHNOLOGY INCLUDING E-COMMERCE,**  
**HTML AND BASIC JAVA (New)**  
**(2008 Pattern)**

Time : 3 Hours

Max. Marks : 70

**Instructions :** 1) *Q. 7 is compulsory.*  
2) *Solve **any five** from Q. 1 to Q. 6.*  
3) *Write assumptions if **any**.*

1. Explain various uses of HTML and XML. **10**
2. Write Java code for displaying amount of simple interest. Accept principle, interest rate and duration in years from user. **10**
3. Discuss Applet Life Cycle with the help of diagram. **10**
4. What are scripting languages ? Explain types of scripting language. **10**
5. Write Java code for displaying prime numbers from the given range. Accept range from the user. **10**
6. Discuss abstract classes in Java with example. **10**
7. Write short notes on (**any 4**) : **20**
  - a) Packages in Java
  - b) Web hosting
  - c) AWT
  - d) Digital certificate
  - e) WWW.



[3989] – 203

**P.G.D.C.M. (Semester – II) Examination, 2011**  
**203: DATABASE MANAGEMENT SYSTEM AND ORACLE**  
**(2008 Pattern) (New)**

Time : 3 Hours

Max. Marks :70

*Note : All questions are compulsory.*

1. Solve (**Any Two**). **14**
  - A) Explain mapping cardinalities used in ER model.
  - B) What is Normalisation? Explain.
  - C) Advantages of DBMS.
  
2. Write short notes (**Any Two**). **14**
  - A) Data Abstraction.
  - B) Keys in DBMS.
  - C) Anomalies.
  
3. Using the following tables, write SQL statements. **14**

Emp table:- empno, ename, job, hiredate, sal, deptno  
dept table:- deptno, dname, loc

  - a) Display names and jobs of employees working in dept 10 and 20.
  - b) Give list of employees sorted on salary.
  - c) Display name and annual salary of each employee.
  - d) Find out the department in which 'clerk' working.
  - e) List all employees hired in the month of 'Jan'.
  - f) Display details of all employees having 'T' in their name.
  - g) Display maximum, minimum and average salary given in the organisation.

**P.T.O.**



4. Solve (**Any Two**). **14**

- A) Write a PL/SQL block which will print first 5 highest earners from emp table.
- B) Write a PL/SQL block to insert a record in dept table (Accept deptno, dname, and location from user).
- C) Explain DCL with suitable examples.

5. Write short notes (**Any Three**). **14**

- A) Set Operators.
- B) Integrity Constraints.
- C) Character functions in SQL
- D) Group by with having clause.
- E) Cursors.

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**P.G.D.C.M. (Semester – II) Examination, 2011**  
**202 : SOFTWARE ENGINEERING (Old)**  
**(2005 Pattern)**

Time : 3 Hours

Max. Marks : 70

*Note: Solve any 5.*

1. Soft Tech. Pvt. Ltd. has issued an advertisement calling applications for various posts. After receiving applications scrutiny will be made and interview letters will be send. Deserving candidates will be selected through interviews and will be appointed as regular employees.

a) Draw First Level DFD

b) Design File Layouts.

**14**

2. Explain phases of SDLC with its Limitations.

**14**

3. All the states in country have arranged to implement Value Added Tax (VAT) on the various commodities sold in their respective states. The VAT rules are as follows.

If the commodity is product within the state, 4% VAT is applicable

If the commodity is from outside state, 8% VAT is applicable for all.

If the commodity is imported, then 12% VAT is applicable for all

If it is second sale, the 4% VAT is applicable for all Commodities.

Draw Decision Table and Decision Tree to compute VAT.

**14**

**P.T.O.**



4. Book Automation software (BAS) should help user query whether a book is in Stock or not. If book is in stock exact number of copies available and the rack Number in which the book is located should be displayed. BAS should maintain prices of various books.

As soon as customer selects a book for purchase, the sales clerk should enter the title for BAS to update the stock and generate the sales receipt. This software should also allow employees to update the inventory whenever new Supply arrives :

- A) Draw Context Level Data Flow Diagram  
B) Format of Sales Receipt. **14**
5. Explain Various Fact finding Techniques with its Advantages and disadvantages. **14**
6. Write short notes on (**any 2**) : **14**
- i) Spiral Model
  - ii) Functional Decomposition Diagram
  - iii) 4GL.



**P.G.D.C.M. (Semester – II) Examination, 2011**  
**(2005 Pattern)**  
**ORACLE**  
**(Old)**

Time : 3 Hours

Max. Marks : 80

**Tables :**

Emp (Empno, ename, address, ph, dob, salary, comm, hiredate, mgrno, deptno)

Dept (Deptno, dname, locno)

Location (Locno, Ldesc)

1. Consider the above tables to solve the following queries. (**any 10**) : **20**

- 1) Display the details of employees from SALES department.
- 2) Display the employee name, salary and total annual compensation.
- 3) Display the details of employees who do not receive commission.
- 4) Display the details of employees residing out of PUNE.
- 5) Display the age of all the employees.
- 6) Display the names of employees located in BOSTON.
- 7) Display the employee name along with his managers name.
- 8) Delete the employee details from the OPERATIONS department.
- 9) Write a query to add email id to the employee table.
- 10) Write a query to create the employee table with suitable constraints.
- 11) Write a query to increase the salary of all the employee from FINANCE department by Rs. 1,000.
- 12) Display the employee name, department name and location for all the employees.

**P.T.O.**



2. Discuss LOB data types in oracle. 10

OR

2. Explain conversion functions in oracle with appropriate syntax and example.

3. Write short note on (any 4) : 20

- 1) Views
- 2) Set operators
- 3) DCL statements
- 4) Alter statement
- 5) LIKE operator.

4. Write the following PL/SQL programs (any 4) : 20

Note : Consider above tables to solve the PL/SQL program wherever necessary.  
Handle necessary exception.

- 1) Write a PL/SQL block to accept the year and display if it is leap year.
- 2) Write a PL/SQL block to accept a string and display it in reverse order.
- 3) Write a function which will accept the department name and display the total number of employees having compensation above 20000.
- 4) Write a procedure that will accept the employee name and display the no. of years the employee is working in the organization.
- 5) Write a PL/SQL block to accept the manager name and display the names of employees working under him.

5. Answer the following (any 2) : 10

- 1) Features of PL/SQL
- 2) Cursor for loop
- 3) Share and Exclusive locks
- 4) Record datatype.



[3989] – 202

**P.G.D.C.M. (Sem. – II) Examination, 2011**  
**202 : SOFTWARE ENGINEERING (New)**  
**(2008 Pattern)**

Time : 3 Hours

Max. Marks : 70

1. A Co-operative bank accepts deposits from public for a period of 1, 2 and 3 years at the interest rate of 8%, 8.5% and 9% respectively. 0.5% additional interest rate is given to senior citizens. Minimum deposit should be Rs. 5000 and maximum 15000
  - a) Draw Context Level DFD 6
  - b) Draw ERD 6
  - c) Design normalized tables 8
  - d) FD - Receipt 10
2. Explain System Development Life Cycle. 10
3. Draw Decision Table 10

Eligibility criteria for university examination for post graduate course is

  - 1) Maharashtra domicile student should acquire minimum 45% marks in basic graduation.
  - 2) Non-Maharashtra domicile student should acquire minimum 55% marks in basic graduation.
  - 3) Concession of 5% considered, if student has represented university at national level in any sports event.
4. Write short notes on (**any four**) : 20
  - a) Data Dictionary
  - b) Output design
  - c) Types of system
  - d) Skills required by System Analyst
  - e) Prototyping model.





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**P.G.D.C.M. (Sem. – II) Examination, 2011**  
**201 : WEB TECHNOLOGY INCLUDING E – COMMERCE,**  
**HTML AND BASIC JAVA (Old)**  
**(2005 Pattern)**

Time : 3 Hours

Max. Marks : 80

**Instructions :** 1) Question 1 and 8 are **compulsory**.

2) Solve **any five** questions from question 2 to question 7.

1. Explain various features of HTML and XML. **10**
2. Write a java code to find addition of digits of accepted four digit number. For example i/p : 2352 o/p : 12. **10**
3. Discuss Applet Life cycle with the help of diagram. **10**
4. What are scripting languages ? Explain various types of scripting languages. **10**
5. Write java code for following pattern using loops : **10**  
E E E E E  
D D D D  
C C C  
B B  
A
6. Write a program to display the accepted string in reverse order. **10**
7. What is Electronic Commerce ? How it works ? **10**
8. Write short notes on (**any 4**) : **20**
  - a) Abstract Classes
  - b) Web Hosting
  - c) Layout manager
  - d) Digital Certificate
  - e) Encapsulation.



[3989] – 101

**P.G.D.C.M. (Semester I) Examination, 2011**

**101 : ELEMENTS OF INFORMATION TECHNOLOGY AND OFFICE  
AUTOMATION WINDOWS OPERATING SYSTEMS AND M.S. OFFICE  
(2008 Pattern)**

Time : 3 Hours

Max. Marks : 70

*Note : 1) All questions carry equal marks.*

*2) Solve any 7 questions.*

1. Solve the following :
  - a)  $(01011101)_2 + (7C)_{16} = (?)_{10}$
  - b)  $(6B)_{16} = (?)_8 = (?)_2$
  - c)  $(1011011)_2 = (?)_{10} = (?)_8$
  - d)  $(1010)_2 * (23)_{10} = (?)_8$
  - e)  $(123)_8 + (10101)_2 = (?)_{10}$
2. Explain working of any one input device and one output device.
3.
  - a) Differentiate between application software and system software.
  - b) Explain mathematical functions used in MS-Excel.
4. What is primary storage ? How it differs from secondary storage ?
5. Explain different formatting features in MS-WORD.
6. Explain file organization and accessing techniques.
7. What are gates? Explain with example.
8. Write short notes (**any 2**) :
  - a) Virus
  - b) MICR
  - c) GUI.