

Total No. of Questions : 5]

[Total No. of Printed Pages : 2

[3973]-101

B. C. A. (Semester - I) Examination - 2011

BUSINESS COMMUNICATION

(New 2008 Pattern)

Time : 3 Hours]

[Max. Marks : 80

Instructions :

- (1) All questions are compulsory.*
 - (2) Figures to the right indicate full marks.*
 - (3) Draw figures wherever necessary.*
-

Q.1) What is Communication ? Explain Process of Communication in detail. **[15]**

OR

Q.1) Explain Types of Communications in detail. **[15]**

Q.2) Write an application letter for the post of a Project Leader in Super Software Pvt. Ltd. along with resume. **[15]**

OR

Q.2) What is Letter of Enquiry ? Write an Enquiry Letter to House of Laptops, Pune for enquiring about various offers they have on purchase of Laptops. **[15]**

Q.3) State and explain Modern Means of Communication. **[15]**

OR

Q.3) What is Group Discussion ? Elaborate advantages and disadvantages of Group Discussion. **[15]**

Q.4) Explain Principles of Good Listening. **[15]**

OR

Q.4) What is Business Letter ? Explain functions of a Business Letter. **[15]**

[3973]-101

1

P.T.O.

Q.5) Write short notes : (Any Four)

[20]

- (a) Barriers in Communication
 - (b) Grapevine
 - (c) Types of Meetings
 - (d) Oral Reports
 - (e) Sales Letter
 - (f) Speaking Skills
-

Total No. of Questions : 5]

[Total No. of Printed Pages : 2

[3973]-102

B. C. A. (Semester - I) Examination - 2011

PRINCIPLES OF MANAGEMENT

(New 2008 Pattern)

Time : 3 Hours]

[Max. Marks : 80

Instructions :

(1) All questions are compulsory.

(2) All questions carry equal marks.

Q.1) What is Management ? Explain various Principles of Management.

OR

Q.1) Discuss Elton Mayo's Hawthorne Experiment.

Q.2) Explain advantages and limitations of Planning.

OR

Q.2) Write notes :

(a) Need of Delegation of Authority

(b) Importance of Leadership

Q.3) Define Motivation. Briefly explain any two Theories of Motivation.

OR

Q.3) What is 'Organising' ? Describe steps in the Process of Organising.

Q.4) Define 'Strategic Management'. Review Strategic Management Practices in India.

OR

Q.4) Write notes :

(a) Process of Rational Decision-making

(b) Limitations of Total Quality Management

[3973]-102

1

P.T.O.

Q.5) Write short notes : (Any Four)

- (a) Management of Change
 - (b) Management as a Profession
 - (c) Importance of Co-ordination
 - (d) Features of Controlling
 - (e) International Management
 - (f) Organisational Communication
-

Total No. of Questions : 8]

[Total No. of Printed Pages : 1

[3973]-201

B. C. A. (Semester - II) Examination - 2011

ORGANISATIONAL BEHAVIOUR

(New 2008 Pattern)

Time : 3 Hours]

[Max. Marks : 80

Instructions :

- (1) Answer *any five* questions.
- (2) All questions carry equal marks.
- (3) Figures to the right indicate full marks.

-
-
- Q.1) Explain any four Models of Organisational Behaviour. [16]
- Q.2) Describe Job Satisfaction. Also explain nature and importance of Motivation. [16]
- Q.3) What is Personality ? Explain any two Theories of Personality. [16]
- Q.4) Explain various Determinants of Personality. [16]
- Q.5) Define Leadership. Explain various Styles of Leadership used in the Organisation. [16]
- Q.6) What is Stress Management ? Explain Individual Strategies and Organisational Strategies. [16]
- Q.7) Explain various Sources of Conflicts and its Strategy for Resolution of Conflict. [16]
- Q.8) Write short notes : (Any Two) [8x2=-16]
- (a) Process of Conflicts
 - (b) Traits of Effective Leaders
 - (c) Maslow's Need Hierarchy Theory

[3973]-201/1

Total No. of Questions : 4]

[Total No. of Printed Pages : 4

[3973]-203

B. C. A. (Semester - II) Examination - 2011

‘C’ PROGRAMMING

(New 2008 Pattern)

Time : 3 Hours]

[Max. Marks : 80

Q.1) Attempt any ten of the following :

[10x2=20]

- (1) What is an Array ? Give an example.
- (2) Define Structure with an example.
- (3) What do you mean by Command Line Argument ?
- (4) Give Syntax and use of fclose().
- (5) Define String with an example.
- (6) List different Modes of File Opening.
- (7) What is a Pointer ? How it is declared ?
- (8) What is the difference between scanf() and gets() ?
- (9) Give Syntax and use of stelen().
- (10) What is Masking ? How it is done ?
- (11) List different Categories of Pre-processor Directives.
- (12) What is Nested Structure ?

Q.2) Attempt any four of the following : [5x4=20]

- (a) What is Dynamic Memory Allocation ? Explain different functions in detail.
- (b) Compare Macro with Functions.
- (c) Differentiate between Structure and Union with an example.
- (d) Explain Pointer Arithmetic with an example.
- (e) How can Array be passed to Function ? Explain with example.

Q.3) Attempt any four of the following : [5x4=20]

- (a) Write a 'C' Program to display transpose of a Matrix.
- (b) Write a 'C' Program to read a file and print number of characters, words and lines in it.
- (c) Create a structure to store data of 10 employees as Employee Number, Name and Salary. Write a 'C' Program to print Employee Numbers and Names of Employees having salary greater than 10,000.
- (d) Write a 'C' Program to check if given string is Palindrome or not.
- (e) Write a 'C' Program to copy contents of one file to another.

Q.4) Trace output and justify : (Any Four) [5x4=20]

```
(a) main( )
    {
        union a
        {
            int i;
            char ch[2];
        };
        union a u;
        u.ch[0] = 3;
        u.ch[1] = 2;
        printf("%d %d %d", u.ch[0], u.ch[1], u.i);
    }
```

- (b) `main()`
- ```
{
 static char str[] = "Malayalam";
 char *s;
 s = str + 8;
 while (s >= str)
 {
 printf("%c", *s);
 s - - ;
 }
}
```
- (c) `#define PRODUCT (x) (x * x)`
- ```
main()
{
    int i = 3, j;
    j = PRODUCT (i + 1);
    printf("\n % d", j);
}
```
- (d) `main()`
- ```
{
 int num[26], temp;
 num[0] = 100;
 num[25] = 200;
 temp = num[25];
 num[25] = num[0];
 num[0] = temp;
 printf("%d %d", num[0], num[25]);
}
```



```
(e) main()
{
 char s[] = "Aw what the heck";
 printf("%s", s);
 printf("\n %c", s[3]);
 printf("\n %c", s[1]);
}
```

---

Total No. of Questions : 5]

[Total No. of Printed Pages : 3

**[3973]-204**

**B. C. A. ( Semester - II ) Examination - 2011**

**FILE STRUCTURE AND DATABASE CONCEPTS**

**(New 2008 Pattern)**

**Time : 3 Hours]**

**[Max. Marks : 80**

**Instructions :**

- (1) *All questions are compulsory.*
  - (2) *Figures to the right indicate full marks.*
- 
- 

**Q.1) Attempt any four :**

**[4x4=16]**

- (a) Explain Sorted File Organisation Technique in detail.
- (b) List various Users of DBMS and specify their roles.
- (c) Explain Network Model with example.
- (d) What is an Attribute ? Explain its types.
- (e) Differentiate between Specialisation and Generalisation with example.

**Q.2) Attempt any four :**

**[4x4=16]**

- (a) Explain Union and Intersection Operation of relational Algebra with example.
- (b) Write short note on 'Normalization'.
- (c) Differentiate between ISAM and B<sup>+</sup> Tree.
- (d) Define :
  - (i) Primary Key
  - (ii) Super Key
- (e) List Capabilities of Good DBMS. Explain any two of them.

**[3973]-204**

**1**

**P.T.O.**

**Q.3) Attempt any four :** **[4x4=16]**

- (a) Explain Sparse Index with example.
- (b) Discuss Anomalies of Unnormalised Database.
- (c) Explain Overall Structure of Database Management System, in brief.
- (d) List various DDL Commands. Explain any one with example.
- (e) What are the functions of DBA ?

**Q.4) Attempt the following :** **[16]**

Consider the following entities and their relationship :

Doctor (dno, dname, city)

Patient (opdno, pat\_name, addr, disease)

The relation between Patient and Doctor is many\_to\_many.

Create a RDB in 3NF and solve any five of the following :

- (a) Insert a row in Doctor Table.
- (b) Find names of patients who are treated by 'Dr. Deshpande'.
- (c) Display names of doctors who live in 'Pune' city.
- (d) Count number of patients suffering from 'Cancer'.
- (e) Add 'Discharge\_date' Column to Patient Table.
- (f) Display total no. of patients treated by each doctor.

**Q.5) Attempt the following :** **[08]**

- (a) A company has several departments. Each department has a supervisor and at least one employee. Employees must be assigned to at least one, but possibly more departments.
  - (i) Identify all entities
  - (ii) Identify all relations
  - (iii) Draw E-R Diagram

(b) Consider the following Relational Database : [08]

Customer (cno, cname, city)

Quotation (quot\_no, q\_date, description, amt\_quoted, cno)

Customer and Quotation are related with one\_to\_many relationships.

Write Relational Algebraic Expression for the following :

- (i) List all the Customers who live in 'Mumbai' or 'Pune'.
  - (ii) Display customer names having quotation for 'Desktop'.
  - (iii) Display customers of amt\_quoted as Rs. 10,000.
  - (iv) List all the customers bearing quotation dated '1-1-10'.
-

Total No. of Questions : 5]

[Total No. of Printed Pages : 4

**[3973]-205**

**B. C. A. ( Semester - II ) Examination - 2011**

**COST ACCOUNTING**

**(New 2008 Pattern)**

**Time : 3 Hours]**

**[Max. Marks : 80**

**Instructions :**

- (1) *All questions are compulsory.*
  - (2) *Figures to the right indicate full marks.*
  - (3) *Use of calculator is allowed.*
- 
- 

**Q.1) (A) Indicate whether the following statements are true or false :**

**(Any Five)**

**[05]**

- (a) Financial Accounting has been developed out of Limitations of Cost Accounting.
- (b) Motive Power is an example of Administration Overhead.
- (c) Budget is an estimation of future need.
- (d) Standard Costs are always Pre-determined.
- (e) Per Unit Fixed Cost always remains constant.
- (f) Operating Costing deals with Costing of Services.

**(B) Fill in the blanks : (Any Five)**

**[05]**

- (a) Fixed Cost per Unit \_\_\_\_\_ with increase in the size of output.
- (b) In \_\_\_\_\_ Method of Costing, cost of each job is separately ascertained.
- (c) \_\_\_\_\_ is a summary of all Functional Budgets.
- (d) \_\_\_\_\_ is the difference between Sales and Variable Cost.
- (e) Abnormal Loss is charged to \_\_\_\_\_ Account.
- (f) In transport undertaking, the Cost Unit is \_\_\_\_\_.

**Q.2)** Define the term 'Cost'. Explain various Elements of Cost with suitable examples. [15]

**OR**

**Q.2)** (A) Explain Concept of Cost, Costing, Cost Accounting and Cost Accountancy. [08]

(B) State advantages of Cost Accounting. [07]

**Q.3)** Write short notes : (Any Three) [15]

(a) Features of Job Costing

(b) Cost Centre

(c) Work Certified

(d) Break-even Point

(e) Features of Process Costing

**Q.4)** Prepare Cost Sheet of M/s. Sunrise Systems Ltd. for the period ended 30-6-09 : [16]

|                               | <b>Rs.</b> |
|-------------------------------|------------|
| Raw Materials consumed        | 40,000     |
| Wages (Direct)                | 20,000     |
| Direct Expenses               | 1,500      |
| Cotton Waste, Oil and Grease  | 500        |
| Inspector's Wages             | 1,000      |
| Wages paid to Factory Coolie  | 500        |
| Factory Electricity           | 400        |
| Office Electricity            | 300        |
| Factory Rent                  | 1,200      |
| Office Rent                   | 300        |
| Repairs – Plant and Machinery | 700        |
| – Office Building             | 250        |

|                                      | <b>Rs.</b> |
|--------------------------------------|------------|
| Depreciation – Plant and Machinery   | 1,000      |
| – Office Building                    | 1,250      |
| Manager’s Salary                     | 700        |
| Telephone Charges                    | 500        |
| Printing and Stationery              | 100        |
| Warehouse Rent                       | 600        |
| Postage                              | 50         |
| Director’s Fee                       | 1,000      |
| Advertisement                        | 300        |
| Travelling Expenses                  | 200        |
| Delivery Van Expenses                | 300        |
| Salesman’s Salary                    | 700        |
| Tender Expenses (Selling Department) | 250        |
| Public Relation Expenses (Office)    | 350        |
| Sales                                | 86,050     |

**Q.5) (A)** A company has prepared the following budget estimate for the year 2009-10 :

|                        |                |
|------------------------|----------------|
| Sales                  | – 15,000 units |
| Fixed Cost             | – Rs. 34,000   |
| Sales Value            | – Rs. 1,50,000 |
| Variable Cost per unit | – Rs. 6        |

**You are required to calculate :**

- (a) P/V Ratio
- (b) BEP (Sales)
- (c) Margin of Safety

**[12]**

- (B) Dabur Chemicals Ltd., Nagpur has given you the following information at 50% capacity of the production of 5,000 units during the month of March, 2009 :

| <b>Particulars</b>                | <b>Cost per Unit (Rs.)</b> |
|-----------------------------------|----------------------------|
| Materials                         | 50                         |
| Labour                            | 30                         |
| Variable Overheads                | 20                         |
| Fixed Overheads (Rs. 50,000)      | 10                         |
| Admn. Overheads (90% Fixed)       | 10                         |
| Selling Expenses (25 Fixed)       | 08                         |
| Distribution Expenses (20% Fixed) | 05                         |
| <b>Total</b>                      | <b>133</b>                 |

You are required to prepare Flexible Budget at 60%, 70% capacity. [12]

**OR**

- (B) From the following data, calculate : [12]
- Labour Cost Variance
  - Labour Rate Variance
  - Labour Efficiency Variance

| <b>Workers</b> | <b>Standard</b>              | <b>Actual</b>                  |
|----------------|------------------------------|--------------------------------|
| Skilled        | 30 hours @ Rs. 5<br>per hour | 32 hours @<br>Rs. 5 per hour   |
| Unskilled      | 40 hours @ R. 4<br>per hour  | 32 hours @ R. 4.25<br>per hour |



Total No. of Questions : 5]

[Total No. of Printed Pages : 2

**[3973]-303**

**B. C. A. ( Semester - III ) Examination - 2011**

**SOFTWARE ENGINEERING**

**(New 2008 Pattern)**

**Time : 3 Hours]**

**[Max. Marks : 80**

**Instructions :**

- (1) All questions are compulsory.
- (2) All questions carry equal marks.

---

---

**Q.1) Attempt the following : (Any Eight)**

**[16]**

- (a) Define Beta Testing.
- (b) Define Decision Tree and Decision Table.
- (c) What is Data Dictionary ?
- (d) State advantages of Waterfall Model.
- (e) What are the benefits of Expert System ?
- (f) What are the types of Couplings ?
- (g) State advantages and disadvantages of BBT.
- (h) What is Prototyping ?
- (i) State characteristics of Software.
- (j) State stages in SDLC.

**Q.2) Answer the following : (Any Four)**

**[16]**

- (a) What is Fact Finding Technique ? Explain any one.
- (b) Discuss Spiral Model of Software Development.
- (c) Distinguish between TPS and DSS.
- (d) What Skills are required in System Analyst ?
- (e) What is Normalization ? Discuss steps in Normalization.
- (f) Discuss Contents of Data Dictionary.

**Q.3) (A)** Design a screen layout for creating user account on Internet (with personal details, user\_id and password, save, cancel commands etc.). **[08]**

**(B)** A Co-operative Bank XYZ will grant loans under the following conditions :

(1) If a customer has an account with the bank and has no loan outstanding, loan will be granted.

(2) If a customer has an account with the bank but some amount is outstanding from previous loans, then loan will be granted if special approval is obtained.

(3) Reject loan applications in all other cases.

Represent above study, using :

(a) Decision Tree

(b) Decision Table **[08]**

**Q.4) Short notes : (Any Four)** **[16]**

(a) SRS documentation

(b) Decision Trees

(c) Black Box Testing

(d) Expert System

(e) Coupling

**Q.5) Case Study :** **[16]**

Prepare a Context Level Diagram and First Level Diagram for the Savings Bank Deposit and Withdrawal System in a Nationalized Bank. Also involve calculation of Interest.

Total No. of Questions : 5]

[Total No. of Printed Pages : 2

**[3973]-401**

**B. C. A. ( Semester - IV ) Examination - 2011**

**NETWORKING**

**(New 2008 Pattern)**

**Time : 3 Hours]**

**[Max. Marks : 80**

**Instructions :**

- (1) *All questions are compulsory.*
  - (2) *Draw neat diagram wherever necessary.*
- 
- 

**Q.1) Attempt any three of the following : [15]**

- (a) Explain Goals and Applications of Computer Networks.
- (b) Explain Bluetooth Architecture.
- (c) Draw ISO/OSI Model and state functions of each layer.
- (d) Explain Network Classification.

**Q.2) Attempt any three of the following : [15]**

- (a) Explain Network Interface Cards.
- (b) Explain Architecture of IEEE 802.11.
- (c) Explain Synchronous Transmission.
- (d) Compare Connection Oriented and Connectionless Services.

**Q.3) Attempt any three of the following : [15]**

- (a) Write a short note on Search Engines.
- (b) Compare IEEE 802.3 Ethernet with IEEE 802.4 Token Bus.
- (c) Explain how Proxy Servers and Firewalls help in maintaining Network Security ?
- (d) Explain Optical Fiber Cables.

**Q.4)** Attempt **any three** of the following : **[15]**

- (a) What are design issues of Layer ?
- (b) What is Topology ? Explain its types.
- (c) Explain Propagation Methods.
- (d) Explain Gateways.

**Q.5)** Write short notes : (**Any Four**) **[20]**

- (a) www
  - (b) Server based and Peer to Peer LANs
  - (c) SAP
  - (d) Hubs
  - (e) IEEE 802.5
-

Total No. of Questions : 5]

[Total No. of Printed Pages : 2

**[3973]-403**

**B. C. A. ( Semester - IV ) Examination - 2011**

**INVENTORY MANAGEMENT (SAD)**

(New 2008 Pattern)

**Time : 3 Hours]**

**[Max. Marks : 80**

---

---

**Q.1) Solve any eight of the following :**

**[16]**

- (a) What is Safety Stock ?
- (b) What is EOQ ?
- (c) What are Incited Emergencies ?
- (d) How is Fraud done ?
- (e) State different elements of Bar Code.
- (f) Explain Applications of Bar Code.
- (g) What are CASE Tools ?
- (h) What are the advantages of Re-engineering ?
- (i) What is Logic Chart ?
- (j) Explain Corrective Maintenance.

**Q.2) Attempt any four of the following :**

**[16]**

- (a) Explain what different Emergencies can occur in an Organisation ?
- (b) What do you mean by Software Maintenance ?
- (c) Explain Criteria of Judging Inventory System.
- (d) State benefits of Bar Code.
- (e) What is Integrated CASE Environment ?

**Q.3) Attempt any two :** [16]

- (a) Explain benefits and weaknesses of CASE Tools.
- (b) What are CASE Tools ? Explain Architecture of CASE Tools.
- (c) Describe Software Re-engineering Process Model with suitable diagram.

**Q.4) Solve any four of the following :** [16]

- (a) What is ABC Analysis ? Explain with suitable example.
  - (b) What is Logic Chart ? How does it differ from Flow Chart ?
  - (c) Explain Software Maintenance with its types.
  - (d) What are the duties of Planning Team in Emergencies ?
  - (e) The Finance Department of Rajesh Textile Corporation gathered the following information :
    - The carrying cost per unit of inventory is Rs. 10.
    - The fixed cost per order is Rs. 20.
    - The no. of units required is 30,000 per year.
    - The variable cost per unit ordered is Rs. 2.
    - The purchase cost price per unit is Rs. 30.
- (1) Determine Economic Order Quantity.
- (2) Calculate total no. of orders in a year.

**Q.5) Write short notes : (Any Four)** [16]

- (a) Theft
- (b) Turbo Analyst
- (c) EOQ
- (d) Building Block for CASE Environment
- (e) Reverse Engineering to Understand Data.

Total No. of Questions : 6]

[Total No. of Printed Pages : 1

**[3973]-404**

**B. C. A. ( Semester - IV ) Examination - 2011**

**HUMAN RESOURCE MANAGEMENT**

**(New 2008 Pattern)**

**Time : 3 Hours]**

**[Max. Marks : 80**

**Instructions :**

- (1) *Question No. 6 is compulsory.*
- (2) *Answer **any four** from the remaining.*
- (3) *Figures to the right indicate full marks.*
- (4) *Draw figures wherever necessary.*

- 
- 
- Q.1)** Define HRM. Explain role of a HR Manager in detail. **[15]**
- Q.2)** Define Organisational Behaviour. Explain approaches towards the study of OB. **[15]**
- Q.3)** Explain Training Process in detail. **[15]**
- Q.4)** Define Performance Appraisal. Explain objectives and limitations of Performance Appraisal. **[15]**
- Q.5)** Explain the following concepts in detail : Promotion, Demotion and Transfer. **[15]**
- Q.6)** Write short notes : **(Any Four)** **[20]**
- (a) Selection Process
  - (b) Fringe Benefits
  - (c) Evaluation of Management Development Programme
  - (d) External Sources of Recruitment
  - (e) Importance of HRP
  - (f) Wages and Salary Administration

---

**[3973]-404/1**

Total No. of Questions : 4]

[Total No. of Printed Pages : 2

**[3973]-41**

**B. C. A. ( Semester - IV ) Examination - 2011**

**OPERATING SYSTEMS**

**(Old 2005 Pattern)**

**Time : 3 Hours]**

**[Max. Marks : 80**

***Instructions :***

- (1) All questions are compulsory.*
  - (2) Neat diagram must be drawn wherever necessary.*
- 
- 

**Q.1) Attempt any ten of the following :**

**[10x2=20]**

- (1) What is Deadlock ?
- (2) What are the Classes of Interrupts ?
- (3) What is Segment ?
- (4) What is System Call ?
- (5) Define an Operating System.
- (6) What is Swapping ?
- (7) What is Throughput ?
- (8) What is Process ? List different types of Process States.
- (9) Define Average Waiting Time.
- (10) List three categories of information in a Process Control Block.
- (11) What is Logical Address ?
- (12) Define two main Categories of Processor Register.



**Q.2) Attempt any five of the following :** **[5x5=25]**

- (a) List and briefly define three techniques for performing I/O.
- (b) What does it mean to pre-empt a process and what is the difference between pre-emptive and non-pre-emptive process ?
- (c) What is Scheduling ? List and explain three types of Schedulers.
- (d) State and explain four reasons for Process Creation.
- (e) Explain Traditional Unix Kernel.
- (f) State and explain five requirements, that should get satisfied by Memory Management.

**Q.3) Attempt any one of the following : ((a) or (b))** **[1x10=10]**

- (a)
  - (i) Explain different functions performed by an Operating System.
  - (ii) Write short note on PCB.
- (b)
  - (i) Compare Unix and DOS.
  - (ii) Compare Paging with Segmentation.

**Q.4) Attempt any five of the following :** **[5x5=25]**

- (a) Explain Round Robin Process Scheduling.
- (b) Explain four necessary conditions for a Deadlock to occur.
- (c) Explain Five - state Process Models with diagram.
- (d) Write short note on Memory Hierarchy.
- (e) Calculate Average Turnaround Time and Waiting Time for FCFS and Non-pre-emptive SJF. (Assume all process arrived at time zero)

| <b>Process</b> | <b>Burst Time</b> |
|----------------|-------------------|
| P <sub>1</sub> | 10                |
| P <sub>2</sub> | 5                 |
| P <sub>3</sub> | 1                 |
| P <sub>4</sub> | 6                 |

Total No. of Questions : 5]

[Total No. of Printed Pages : 3

**[3973]-42**

**B. C. A. ( Semester - IV ) Examination - 2011**

**VISUAL BASIC**

**(Old 2005 Pattern)**

**Time : 3 Hours]**

**[Max. Marks : 80**

**Instructions :**

- (1) *All questions are compulsory.*
  - (2) *Figures to the right indicate full marks.*
  - (3) *Give illustrations wherever necessary.*
- 
- 

**Q.1)** Check whether the following section codes are correct. Give output and suitable explanation for the outputs : **(Any Four)** **[20]**

- (a) for row = 1 to 5  
for col = 1 to row  
print “ \* ” ;  
next col  
print  
next row
- (b) form1.cls  
form1.print mid\$(“welcome to VB”)
- (c) Dim total as integer  
total = 0  
for k = 2 to 10 step 2  
total = total + k  
next k  
print total

- (d) Dim d1, d2 as date  
d1 = "11/13/2009"  
d2 = "11/12/2009"  
print datediff("d", d1, d2)  
print datediff("m", d1, d2)
- (e) Dim str as string  
str = "Hello"  
k = Len (str)  
for i = 1 to k  
    print str  
next i

**Q.2)** Explain the following property settings : (**Any Five**) **[15]**

- (a) To disable a combo box.
- (b) To status bar for your program.
- (c) To resize image control.
- (d) To type multiline text in a text box.
- (e) To create a vertical scroll bar.
- (f) To hide data control of runtime.
- (g) To place a picture on the command button.

**Q.3)** Use two command buttons "Reverse Digits" and "Fibonacci" and other necessary controls to accept required values. Write user defined functions to calculate Reverse the Digits and Fibonacci Series. **[10]**

**OR**

**Q.3)** Draw an interface and write code for the following program. Also give properly settings for the appropriate controls.

How to link file list box, directory list box and drive list box and how to load picture in image control ? **[10]**

**Q.4) Solve the following : (Any Four) [20]**

- (a) Write a program to ask user for a list to numbers and add them until the user wants to stop.
- (b) Explain until loop with syntax and example.
- (c) Differentiate between Message Box and Input Box.
- (d) What is a Menu ? How to create Menu using Menu Editor ?
- (e) Discuss various events related with Mouse.

**Q.5) Write short notes : (Any Three) [15]**

- (a) Control Arrays
  - (b) Frame Control
  - (c) MDI Form
  - (d) Keyboard Events
-

Total No. of Questions : 6]

[Total No. of Printed Pages : 2

**[3973]-43**

**B. C. A. ( Semester - IV ) Examination - 2011**

**SOFTWARE ENGINEERING**

**(Old 2005 Pattern)**

**Time : 3 Hours]**

**[Max. Marks : 80**

**Instructions :**

- (1) *All questions are compulsory.*
  - (2) *Black figures to the right indicate full marks.*
  - (3) *Neat diagrams must be drawn wherever necessary.*
- 
- 

**Q.1)** You have to develop a scanning system for the assessment of answer books written by the students. The questions are objective type. Explain all activities for the following :

- (a) Entities and E. R. Diagram **[07]**
- (b) Context Level Diagram **[06]**
- (c) First Level DFD **[07]**

**Q.2)** Develop a decision table and decision tree which declares discount to the customers using the following conditions :

XYZ Company is offering certain discount on the total amount of purchase. If the purchasing amount is more than 5,000 and the customer is making payment within 5 days, then company offers 5% discount on invoice. If the purchase amount is between 3,000 to 5,000 and the customer is making payment within 5 days, then company offers 3% discount. If the amount is less than 3,000 and the customer is making payment within 5 days, then no discount offered and customer has to pay full amount. If customer is not able to pay within 5 days then no discount is given. **[10]**

**Q.3)** Design a suitable screen layout for the students who appeared for entrance examination of BCA. For the above data entry screen, suggest required validations. **[10]**

- Q.4)** What is Normalization ? Explain different types of Normalizations with example. **[10]**
- Q.5)** (A) Explain Component of OO Model. **[05]**  
(B) What are the principles of Good Code Design ? **[05]**
- Q.6)** Write short notes : **(Any Four)** **[20]**
- (a) Feasibility Study
  - (b) Characteristics of a System
  - (c) Spiral Model
  - (d) Structure Chart and its Symbols
  - (e) Data Dictionary
-

Total No. of Questions : 6]

[Total No. of Printed Pages : 1

[3973]-44

**B. C. A. ( Semester - IV ) Examination - 2011**

**HUMAN RESOURCE MANAGEMENT**

**(Old 2005 Pattern)**

**Time : 3 Hours]**

**[Max. Marks : 80**

**Instructions :**

- (1) *Question No. 6 is compulsory.*
- (2) *Attempt **any four** from the remaining.*
- (3) *Figures to the right indicate full marks.*
- (4) *Draw figures wherever required.*

- 
- 
- Q.1)** Explain Concept of Succession Planning in detail. **[15]**
- Q.2)** What is Collective Bargaining ? State and explain types of Collective Bargaining. **[15]**
- Q.3)** What is Training ? Describe Training Process in detail. **[15]**
- Q.4)** What do you understand by the term HRM and PM ? Explain difference between HRM and PM. **[15]**
- Q.5)** Define Manpower Planning. Elaborate objectives of Manpower Planning. **[15]**
- Q.6)** Write short notes : **(Any Four)** **[20]**
- (a) Concept of Industrial Relations
  - (b) Career Planning
  - (c) Importance of Retention of Employees
  - (d) Recruitment
  - (e) Dispute Settlement Bodies
  - (f) Role of HR Manager

---

[3973]-44/1

Total No. of Questions : 5]

[Total No. of Printed Pages : 2

**[3973]-45**

**B. C. A. ( Semester - IV ) Examination - 2011**

**ORACLE**

**(Old 2005 Pattern)**

**Time : 3 Hours]**

**[Max. Marks : 80**

---

---

**Q.1) For the following tables write SQL Commands : (Any Ten) [20]**

Table : Student (LibCardNo., Name, Class)

Book (BookID, Catagory, Title, Author, Price, Status)

Book\_Issue (BookID, LibCardNo., IssueDate, ReturnDate,  
fine\_charged, fine\_paid)

- (1) Display all books written by author 'Kanitkar'.
- (2) Delete all books having status 'Lost'.
- (3) Count books under the catagory 'System'.
- (4) Display student names who have used books before 9-Sept-09.
- (5) Display details of the books used by student named 'Vicky'.
- (6) Display total fine paid by students of class 'TYBCA'.
- (7) Display Library Card Numbers and names of the students who issued books of highest price.
- (8) Display names and class of the students who paid less fine as fine charged.
- (9) Display Library Card Numbers of the students who have paid fine greater than that of fine charged.
- (10) Display catagorywise book names along with price.
- (11) Display book details having lowest price.
- (12) Display classwise student names list.



**Q.2) Write short notes : (Any Three) [15]**

- (a) DML
- (b) Triggers
- (c) Joins
- (d) Packages

**Q.3) Explain the following : (Any Three) [15]**

- (a) Operators (BETWEEN, IN, NULL, NOT IN, NOT BETWEEN, AND, OR)
- (b) Data Types on PL/SQL
- (c) Date functions (SYS\_DATE, ADD\_MONTH, LAST\_DAY, MONTHS-BETWEEN, NEXT\_DAY)
- (d) PL/SQL Blocks

**Q.4) (A) Explain strategies for implementing Object Oriented Database Management System. [05]**

**(B) Explain Group Functions in SQL (AVG, COUNT, MIN, MAX, SUM) [05]**

**Q.5) Attempt the following : (Any Four) [20]**

- (a) Write a trigger which will restrict credit limit of the amount. The amount should be in between 0 to 20,000.
- (b) Write a PL/SQL blocks which will print even numbers between 1 to 500 along with their sum.
- (c) Write a PL/SQL block which will display departmentwise details of employees who are having highest salary in their department.
- (d) Write a PL/SQL block to raise marks of the students by 5% who are having extra\_activity as 'National Player'. (Marks should not exceed by 100)
- (e) Write a cursor to display projectwise names of all employees.

Total No. of Questions : 7]

[Total No. of Printed Pages : 1

**[3973]-503**

**B. C. A. ( Semester - V ) Examination - 2011**

**PRINCIPLES OF MARKETING**

**(New 2008 Pattern)**

**Time : 3 Hours]**

**[Max. Marks : 80**

**Instructions :**

- (1) Attempt *any five* questions.
- (2) All questions carry equal marks.

- 
- 
- Q.1)** What is Marketing ? Explain nature and scope of Marketing. [16]
- Q.2)** Define Packaging. Explain characteristics and functions of Packaging. [16]
- Q.3)** What is Consumer Behaviour ? Explain scope and significance of Consumer Behaviour. [16]
- Q.4)** What is Distribution Channel ? Explain factors affecting choice of Distribution Channels. [16]
- Q.5)** Define Advertising. Explain various Advertising Media. [16]
- Q.6)** Define Marketing Organisation. Explain essentials of a sound Marketing Organisation. [16]
- Q.7)** Write short notes : **(Any Four)** [16]
- (a) Marketing Environment
  - (b) Product Planning
  - (c) Market Segmentation
  - (d) Methods of Promotion
  - (e) Matrix Organisation
  - (f) Personal Selling

---

**[3973]-503/1**

Total No. of Questions : 6]

[Total No. of Printed Pages : 1

**[3973]-51**

**B. C. A. ( Semester - V ) Examination - 2011**

**DATA COMMUNICATION AND NETWORKING**

**(Old 2005 Pattern)**

**Time : 3 Hours]**

**[Max. Marks : 80**

***Instructions :***

- (1) Question No. 1 is compulsory.*
- (2) Attempt **any four** from Q. Nos. 2 to 6.*
- (3) Question Nos. 2 to 6 carry equal marks.*
- (4) Draw neat diagrams wherever necessary.*

- 
- 
- Q.1)** Explain Ethernet with reference to types, cables, topologies and protocol. **[20]**
- Q.2)** Explain different Modulation Methods used for Data Communication. **[15]**
- Q.3)** Explain Classification of Networks. **[15]**
- Q.4)** Explain different media used for wired communication with reference to Structure Types and Cabling Methods. **[15]**
- Q.5)** Define Computer Networking. Define Topology. Explain types of Networking Topologies. **[15]**
- Q.6)** Short notes : **[15]**
- (a) Wireless Fidelity
  - (b) Search Engine
  - (c) Circuit Switching

Total No. of Questions : 6]

[Total No. of Printed Pages : 2

**[3973]-52**

**B. C. A. ( Semester - V ) Examination - 2011**

**WEB DESIGN AND INTERNET PROGRAMMING**

**(Old 2005 Pattern)**

**Time : 3 Hours]**

**[Max. Marks : 80**

**Instructions :**

- (1) *Question No. 1 is compulsory.*
- (2) *Solve **any four** from the remaining.*
- (3) *State assumption wherever necessary.*

---

---

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

**[20]**

- (a) W3C
- (b) Session Object
- (c) Client Side and Server Side Scripting
- (d) Image Mapping
- (e) Dense Array

**Q.2) (A) Write HTML Code to display the following table :**

**[10]**

|                  |          |
|------------------|----------|
| <b>Oct. 2009</b> | <b>V</b> |
|------------------|----------|

| <b>Sun</b> | <b>Mon</b> | <b>Tue</b> | <b>Wed</b> | <b>Thu</b> | <b>Fri</b> | <b>Sat</b> |
|------------|------------|------------|------------|------------|------------|------------|
|            |            |            |            | 1          | 2          | 3          |
| 4          | 5          | 6          | 7          | 8          | 9          |            |
|            |            |            |            |            |            |            |
|            |            |            |            |            |            |            |

**(B) Explain Text Formatting Tags of HTML with example.**

**[05]**

- Q.3)** (A) Write JavaScript Code to accept name, age, address and e-mail id : **[10]**
- (a) Validate name field as it should accept only characters.
  - (b) Age should be greater than or equal to 18.
  - (c) E-mail id should contain 'e' and '.'.
- (B) Explain Windows Object and Navigator Object of JavaScript. **[05]**
- Q.4)** (A) Write JavaScript Code that will accept number of terms and on click of 'show' button, it will display fibonacci series upto accepted terms. **[10]**
- (B) Write short note on VB Script Conversion Function. **[05]**
- Q.5)** Create a registration form, accept necessary details and save it into database using ASP. Display message containing name and ID No. after saving record. ID No. will be counter for that Web Page. **[15]**
- Q.6)** Write an ASP Code that accepts vendor ID, name, address and product and store in vendor\_master table and on successful saving, gives proper message. Design necessary HTML Page. **[15]**

**OR**

- Q.6)** Write an ASP Code to display information from student master table on web page in tabular format. **[15]**
-

Total No. of Questions : 6]

[Total No. of Printed Pages : 2

**[3973]-53**

**B. C. A. ( Semester - V ) Examination - 2011**

**MATERIALS MANAGEMENT**

**(Old 2005 Pattern)**

**Time : 3 Hours]**

**[Max. Marks : 80**

**Instructions :**

- (1) *Question No. 6 is compulsory.*
- (2) *Solve **any three** from the remaining.*

- 
- 
- Q.1)** (A) Define Materials Management. State objectives of Materials Management.  
(B) Give Interface of Materials Management with other areas of Management.
- Q.2)** (A) What is Forecasting in Materials Management ? Describe its any two methods.  
(B) What is Inventory ? Explain in detail Economic Order Quantity with its basic model.
- Q.3)** (A) Explain ABC Analysis, VED Analysis and F-S-N.  
(B) What is MRP ? Explain its role in Materials Management.
- Q.4)** (A) Explain Concept of Purchase Management. What are the responsibilities of Purchase Department ?  
(B) Explain Concept of Standardization and Codification of Materials.
- Q.5)** (A) What is Materials Handling ? What are the principles of Materials Handling ?  
(B) Describe the following :  
(a) Conveyors  
(b) Mobile JIB Crane

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

**[20]**

- (a) LIFO and FIFO
  - (b) Bill of Materials (BOM)
  - (c) Master Production Schedule
  - (d) Warehouse Management
  - (e) Modern Material Management
-

Total No. of Questions : 5]

[Total No. of Printed Pages : 4

**[3973]-54**

**B. C. A. ( Semester -V ) Examination - 2011**

**C++ AND OOP**

**(Old 2005 Pattern)**

**Time : 3 Hours]**

**[Max. Marks : 80**

**Instructions :**

*(1) All questions are compulsory.*

*(2) Black figures to the right indicate full marks.*

---

---

**Q.1) Attempt any four of the following :**

**[20]**

- (a) Explain any two OOP's Concepts in detail.
- (b) Define Constructor. Explain parameterized Constructor with example.
- (c) What is Friend Function ? Explain it with suitable example.
- (d) Explain array of object in C++ with example.
- (e) Explain virtual functions in C++ with example.

**Q.2) Define the following : (Any Five)**

**[10]**

- (a) Inline Function
- (b) Destructor
- (c) Reference Variable
- (d) Operator Overloading
- (e) Virtual Base Class
- (f) Hierarchical Inheritance



**Q.3)** Attempt **any three** of the following : **[15]**

- (a) Explain difference between C and C++.
- (b) What is Function Overloading ? Explain. Can we overload constructors ? Justify.
- (c) What is File in C++ ? Explain two methods of opening a file with Syntax.
- (d) What is Inheritance ? Explain any two types of Inheritance in detail.

**Q.4)** Write C++ Programs : (**Any Five**) **[25]**

- (a) Create a class Phone having data members :
  - (i) The STD Code
  - (ii) The Exchange Code
  - (iii) Phone Number

Ex : 212-899-25633495

Write a C++ Program to accept details from user (max 10). Display list of phone numbers of users.

- (b) Create a class FDAccount containing members as :
  - Fdno
  - Name
  - Amt
  - Interest Rate
  - Maturity Amt
  - Number of Months

Use parameterized constructor to set appropriate details, where interest rate should be default argument. Calculate maturity amount using interest rate and display all the details.

- (c) Write a program using class to overload unary operator --- for an integer number. (e.g. --- 5)
- (d) Write a menu driven C++ Program using class to perform all arithmetic operations (+, -, \*, /) using Inline Function.
- (e) Write a program to read contents from the file "Sample.txt". Store all the characters from "Sample.txt" into the file "Character.txt" and store all digits into the file "digit.txt".
- (f) Design two base classes Personnel (name, address, e-mail\_id, birth date) and Academic (S.S.C. marks, H.S.C. marks, class obtained). Derive a class Bio-data from both these classes. Write a C++ Program to prepare a bio-data of a student having Personnel and Academic Information.

**Q.5)** Trace output of the following :

**[10]**

```
(a) #include <iostream>
using namespace std;
class code
{ int id;
public :
 code() { }
 code(int a) {id = a;}
 code(code &x)
 {id = x.id;}
 void display(void)
 {
 cout << id;
 }
};

int main()
{ code A(100);
 code B(A);
 code C = A;
 code D;
 D = A;
```

```

 cout << "\n id of A: "; A.display();
 cout << "\n id of B: "; B.display();
 cout << "\n id of C: "; C.display();
 cout >> "\n id of D: "; D.display();
 return 0;
}

```

(b) `#include <iostream>`  
`class space`  
`{ int x, y, z;`  
`public : void getdata (int a, int b, int c)`  
`{ x = a;`  
`y = b;`  
`z = c; }`  
`void display()`  
`{ cout << x << " ";`  
`cout << y << " ";`  
`cout << z << " ";`  
`void operator - ()`  
`{`  
`x = -x;`  
`y = -y;`  
`z = -z;`  
`}`  
`int main()`  
`{`  
`space s;`  
`S.getdata (10, -20, 30);`  
`cout << " S:";`  
`S.display ();`  
`-S;`  
`cout << " S:";`  
`S.display()`  
`return 0;`  
`}`

Total No. of Questions : 5]

[Total No. of Printed Pages : 2

**[3973]-602**

**B. C. A. ( Semester - VI ) Examination - 2011**

**MULTIMEDIA SYSTEMS**

**(New 2008 Pattern)**

**Time : 3 Hours]**

**[Max. Marks : 80**

**Instructions :**

- (1) All questions are compulsory.*
- (2) All questions carry equal marks.*
- (3) Draw diagram wherever necessary.*

---

---

**Q.1) Answer in short : (Any Eight)**

**[16]**

- (a) Hypermedia
- (b) Optical Media
- (c) Script
- (d) Amplitude
- (e) Digital Signals
- (f) PAL
- (g) TIFF
- (h) Sampling
- (i) MIDI
- (j) SECAM

**Q.2) Answer the following : (Any Four) [16]**

- (a) Explain RAID and Levels of RAID. (Any Two)
- (b) What are the various MIDI Messages ?
- (c) Explain applications of Multimedia. (Any Four)
- (d) Explain 24-bit Image with its advantages and disadvantages.
- (e) Explain Concept of Story Board.

**Q.3) Answer the following : (Any Four) [16]**

- (a) Explain Digital to Analog Conversion Process.
- (b) Explain any two Animation Software Tools.
- (c) Explain various CD Standards.
- (d) What is the difference between Hypertext and Hypermedia ?
- (e) Explain any two Television Broadcasting Standards.

**Q.4) Answer the following : (Any Four) [16]**

- (a) Explain any two standards system dependent File Formats.
- (b) Explain Basic Components of Sound.
- (c) Explain Guidelines for Visual Elements and Animation.
- (d) Differentiate between a CD and a DVD.
- (e) Explain Concept of Sampling.

**Q.5) Write short notes : (Any Four) [16]**

- (a) Characteristics of Synthesizers
- (b) GM2
- (c) Paint and PICT
- (d) S-video
- (e) Components of Multimedia System

Total No. of Questions : 5]

[Total No. of Printed Pages : 2

**[3973]-61**

**B. C. A. ( Semester - VI ) Examination - 2011**

**ADVANCED NETWORKING**

**(Old 2005 Pattern)**

**Time : 3 Hours]**

**[Max. Marks : 80**

**Instructions :**

- (1) *All questions are compulsory.*
  - (2) *Draw neat labelled diagrams wherever necessary.*
- 
- 

**Q.1) Answer the following : (Any Three) [15]**

- (a) Explain Digital to Analog Conversion.
- (b) Explain Reverse Address Resolution.
- (c) Explain UDP.
- (d) What are the advantages and disadvantages of Parallel Transmission ?

**Q.2) Answer any three of the following : [15]**

- (a) Explain difference between AAL 1 and AAL 5.
- (b) Draw block diagram showing operation of MPEG.
- (c) Explain Properties of Analog Signals.
- (d) Explain how Security is implemented with IP Sec Protocol ?

**Q.3) Solve any two : [20]**

- (a) Explain Significance of OSI Model along with the function of each layer.
- (b) What are the drawbacks of SSL ? How TLS is more Secure than SSL ?
- (c) What are the different methods used for Analog to Digital Conversion ?

**[3973]-61**

**1**

**P.T.O.**

**Q.4) Explain TCP/IP Architecture. [10]**

**Q.5) Write short notes : (Any Four) [20]**

- (a) PEM
  - (b) IP Packet
  - (c) Application of Digital Signal
  - (d) Fragmentation
  - (e) Routing Matrices
-

Total No. of Questions : 5]

[Total No. of Printed Pages : 2

**[3973]-62**

**B. C. A. ( Semester - VI ) Examination - 2011**

**MULTIMEDIA**

**(Old 2005 Pattern)**

**Time : 3 Hours]**

**[Max. Marks : 80**

---

---

**Q.1) Discuss MIDI System and MIDI Messages. [10]**

**Q.2) Solve any three : [15]**

- (a) Discuss all the Elements of Multimedia.
- (b) Explain Audio and Video Input Devices.
- (c) What is Synthesizer ? Explain different Properties of Synthesizer.
- (d) Explain different Animation Software Tools.

**Q.3) Solve any three : [15]**

- (a) Explain System dependant File Format.
- (b) What is Animation ? State role of computer in Animation.
- (c) Explain different CD Standards.
- (d) Discuss various Applications of Multimedia.

**Q.4) Solve any four : [20]**

- (a) Differentiate between Hypertext and Hypermedia.
- (b) Explain Image and Graphics Data Types.
- (c) Discuss various Components of MIDI System.
- (d) Explain any two Removable Storage Devices.
- (e) Discuss DVD Specifications.



**Q.5) Write short notes : (Any Four)**

**[20]**

- (a) DVD Video
  - (b) Colour Printer
  - (c) Basics of Colour
  - (d) Analog Signals
  - (e) RAID
-

Total No. of Questions : 6]

[Total No. of Printed Pages : 2

**[3973]-63**

**B. C. A. ( Semester - VI ) Examination - 2011**

**MARKETING MANAGEMENT**

**(Old 2005 Pattern)**

**Time : 3 Hours]**

**[Max. Marks : 80**

**Instructions :**

*(1) Question No. 1 is compulsory.*

*(2) Attempt **any four** out of the remaining.*

---

**Q.1) (A) Explain the following concepts with examples : [10]**

(a) Market

(b) Marketing

(c) Selling

**(B) Discuss in detail the Marketing Planning Process. [10]**

**Q.2) Elaborate on Market Segmentation, Targeting and Positioning with suitable examples. [15]**

**Q.3) Discuss Channels of Distribution for the following products : [15]**

(a) Milk

(b) Garments

(c) Television

**Q.4) What is Price Mix ? Explain various factors affecting Price Decision. [15]**

**Q.5) What is the meaning of 'Services Marketing' ? What is the importance of Services Marketing in Developing Indian Economy ? [15]**

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

**[15]**

- (a) Role of Technology in Marketing
  - (b) Rural Marketing
  - (c) Consumer Satisfaction
  - (d) Sales Promotion
  - (e) Marketing Environment
-

Total No. of Questions : 5]

[Total No. of Printed Pages : 4

**[3973]-64**

**B. C. A. ( Semester -VI ) Examination - 2011**

**JAVA**

**(Old 2005 Pattern)**

**Time : 3 Hours]**

**[Max. Marks : 80**

**Instructions :**

- (1) *All questions are compulsory.*
  - (2) *Figures to the right indicate full marks.*
- 
- 

**Q.1) Attempt any four of the following :**

**[4x4=16]**

- (a) List few areas of applicaton of OOP Technology.
- (b) How Multiple Inheritance is achieved in Java ? Explain in detail.
- (c) How do Applets differ from Application Program ? Explain in detail.
- (d) What is an Array ? How it differs from Vector ?
- (e) What is Package ? How to design a Package ?

**Q.2) Answer any four of the following :**

**[4x4=16]**

- (a) How do we define try, catch block ? List any four types of exceptions.
- (b) What are the two methods by which we can stop threads ? Explain in detail.
- (c) What is Layout Manager ? Explain any one in detail.
- (d) Develop an applet that receives 3 numeric values as input from the user and then displays largest of three on the screen.
- (e) Write JDBC Program that searches student details from student table :

Student (rollno, name, class)

**Q.3) Attempt any four :** **[4x4=16]**

- (a) How does Java handle Strings ? Explain in detail.
- (b) Explain type 1 and type 2 JDBC drivers in detail.
- (c) What is an Abstract Class ? Give features of Abstract Class.
- (d) Write a Java Program that allows user to accept two end points (using mouse) and draws a rectangle between two points. (Use AWT Frame Class and Mouse Listners)
- (e) Write a Java Program to input person's name in the form of first, middle and last and then prints it in the form last, first, M., where M is the person's middle initial.

**Q.4) Attempt any four :** **[4x4=16]**

- (a) Explain Static Class Members in detail.
- (b) Describe various Forms of Implementing Interface. Give example of each case.
- (c) Write a note on AWT. Explain any two AWT Components with proper examples.
- (d) Write a Java Program to find out minimum of array elements and check for array limit. (Use exception handling)
- (e) Create a Package Vehicle, which will have two classes - two wheeler and four wheeler. Two wheeler with method disp(cc, price), four wheeler with method show (regno, reg. year).

**Q.5) Attempt any four of the following :** **[4xx=16]**

- (a) What is Wrapper Class ? Explain any four in detail.
- (b) State different uses of Super Keywords ? Explain with suitable examples.
- (c) Discuss steps involved in developing and running local applet.

- (d) The following Code catches Arithmetic Exception. Will this code work ? If not, why ?

```
class except
{
 public static void main(string args[])
 {
 try
 {
 int n = Integer.parseInt (args[0]);
 int n1 = Integer.parseInt (args[1]);
 int n2 = n + n1;
 }
 Catch (Arithmetic Exception ex)
 {
 System.out.print\n ("Arithmetic Exception Block-1");
 }
 Catch (Arithmetic Exception ex)
 {
 System.out.print\n ("Arithmetic Exception Block-2");
 }
 }
}
```

(e) Trace output of the following :

```
class A extends Thread
```

```
{
```

```
 Public void run()
```

```
 {
```

```
 for (int i = 1; i < = 5; i++)
```

```
 {
```

```
 System.out.print\n (“\t from thread A. i =” + i);
```

```
 Thread.sleep (100);
```

```
 }
```

```
 }
```

```
}
```

```
Class Threadclass
```

```
{
```

```
 Public static void main(string[]args)
```

```
 {
```

```
 A a = new A();
```

```
 a.start ();
```

```
 }
```

```
}
```

---