| Total No | o. of Questions : 5] | SEAT No. : |
|---------------|---|------------------------|
| P973 | [4768] - 1001 B.C.A. | [Total No. of Pages :3 |
| 101:N | IODERN OPERATING ENVIRONME (Semester-I) (2013 Patter | |
| 1) | | [Max. Marks : 80 |
| Q1) An | swer the following (any eight) | [16] |
| a) | What is special purpose computer? | |
| b) | What is purpose of control bus? | |
| c) | Write any two examples of non-impact printe | ers. |
| d) | Write the following: i) 1 Byte = (?) bits. ii) 1KB=(?) bytes. | |
| e) | Define Algorithm. | |
| f) | What is interpreter? | |
| g) | What is star topology? Draw diagram of star | topology. |
| h) | Write any two statistical functions in MS- Ex | cel. |

Write full form of 1) EPROM 2) DRAM.

i)

j)

What is LAN?

| Q 2) | Atte | mpt any four of the following: | [16] |
|-------------|------|---|------|
| | a) | Explain applications of computer in various fields. | |
| | b) | Explain bus structure of digital computer. | |
| | c) | Explain difference between RAM and ROM. | |
| | d) | Write a note on MS-Access. | |
| | e) | Draw a flowchart to calculate sum of first N numbers. | |
| Q3) | Atte | mpt any four of the following: | [16] |
| | a) | Explain in detail Real time operating system. | |
| | b) | Write a note on MS-Word. | |
| | c) | Which are different network components? Explain. | |
| | d) | Write a note on OMR. | |
| | e) | Draw Neat diagram of bus topology and explain. | |
| Q4) | Atte | mpt any four of the following: | [16] |
| | a) | Draw neat diagram of magnetic disk and explain. | |
| | b) | Explain characteristics of algorithm. | |
| | c) | Compare between Floppy disk and CD- ROM. | |
| | d) | Explain the different types of charts used in excel. | |
| | e) | Explain advantages of LAN. | |

| Q5) | Attempt | any four | of the | follo | wing: |
|-----|---------|----------|--------|-------|-------|
|-----|---------|----------|--------|-------|-------|

 $[4 \times 4 = 16]$

- a) Write a note on MS- Power Point.
- b) Write a note on Laser Printer.
- c) Compare between Window and Linux operating system.
- d) Compare between Impact and Non-impact printer.
- e) Write a note on mail-merge.

Total No. of Questions: 5]

P974

[4768]-1002

F.Y. B.C.A.

102: FINANCIALACCOUNTING

(Semester-I) (2013 Pattern)

Time: 3 Hours [Max. Marks: 80

Instructions to the candidates:

- 1) All questions are compulsory.
- 2) Figures to the right indicate full marks.
- 3) Use of calculator is allowed.
- Q1) What is 'Financial Accounting'? Explain the scope and objectives of Financial Accounting.[16]

OR

Explain the Accounting Principles and conventions.

Q2) Journalise the following transactions in the books of Mr. Sumit for the month ended Jan, 2013.[16]

Jan 2013:

- 1. Mr. Sumit started business with cash Rs. 10,000.
- 4. Opened bank A/c in State Bank of India by depositing Rs. 2,000.
- 6. Bought goods worth Rs. 2,000 with 5% trade discount.
- 7. Sold goods worth Rs. 500.
- 13. Withdrawn goods worth Rs. 100 by Mr. Sumit for private use.
- 16. Received Rs. 400 from Vivek on account.
- 24. Paid sundry expenses Rs. 50.
- 31. Paid Insurance premium Rs. 175.

March 2014:

- 1. Started business with cash Rs. 50,000.
- 2. Deposited Rs. 20,000 in the bank.
- 3. Purchased goods worth Rs. 10,000 at 10% trade discount and 5% cash discount.
- 4. Bought goods worth Rs. 15,000 at 10% trade discount and 5% cash discount.
- 7. Sold goods worth Rs. 54,000.
- 10. Received Rs. 11,900 from Ashok and allowed him discount of Rs. 100.
- 12. Paid Rs. 11,450 to Kishor and received Rs. 50 as discount.
- 15. Withdrawn Rs. 4,000 for personal use.
- 17. Withdrawn Rs. 15,000 from bank for office use.
- 19. Received Rs. 11,700 from Megnath in full settlement of Rs. 11,800.
- 22. Purchased furniture on cash for Rs. 15,000 for office use.
- 24. Paid for printing and stationery Rs. 1,775.
- 26. Paid for advertisement Rs. 9,000.
- 28. Bought goods worth Rs. 36,000.
- 30. Purchased machinery costing Rs. 25,000 for business use.
- 31. Withdrawn enough cash from bank to keep Rs. 15,000 in hand.

Q4) From the following particulars, prepare, Trading Account, Profit and Loss Account and Balance sheet for the year ended 31st March 2014. [16]

Trial Balance

| Particulars | L.F. | Debit (Rs.) | Credit (Rs.) |
|---------------------|------|-------------|--------------|
| Sundry debtors | - | 15,000 | - |
| Buildings | - | 40,000 | - |
| Goodwill | - | 30,000 | - |
| Bills payable | - | - | 45,000 |
| Sundry creditors | - | - | 25,000 |
| Plant and machinery | - | 60,000 | - |
| Opening stock | - | 35,000 | - |
| Sales | - | - | 1,40,000 |
| Bank overdraft | - | - | 1,25,000 |
| Bills receivable | - | 40,000 | - |
| Purchases | - | 1,25,000 | - |
| Sales returns | - | 1,000 | - |
| Wages | - | 45,000 | - |
| Purchases returns | - | - | 1,500 |
| Carriage inwards | - | 600 | - |
| Carriage outwards | - | 300 | - |
| Office salaries | - | 12,000 | - |
| Office Rent | - | 500 | - |
| Commission | - | 600 | - |

| Postage and Telegram | - | 100 | - |
|-------------------------|---|----------|----------|
| Depreciation | - | 500 | - |
| Printing and stationery | - | 45 | - |
| Bad debts | - | 200 | - |
| Prepaid insurance | - | 150 | - |
| Cash in hand | - | 6,000 | - |
| Cash at bank | - | 9,000 | _ |
| Income receivable | - | 400 | - |
| Capital A/c | - | - | 90,000 |
| Drawings | - | 5,105 | |
| | | 4,26,500 | 4,26,500 |

Adjustment: Closing stock valued at Rs. 80,000.

Q5) Write short notes on Any Four:

[16]

- a) Limitations of financial accounting.
- b) Accounting standards.
- c) Accounting policies.
- d) Computers and financial application.
- e) Generating accounting reports.
- f) Accounting estimates.



| Total No | o. of Questions : 5] | SEAT No. : |
|-------------------------|---|-------------------------|
| P975 | [4768]-1003 | [Total No. of Pages : 2 |
| | F.Y. B.C.A. | |
| 103: | PRINCIPLES OF PROGRAMMING | |
| | (Semester-I) (2013 Patte | ern) |
| Time: 3 Instructi 1) 2) | Hours] ions to the candidates: All questions are compulsory and carry equal man Figures to the right indicate full marks. | [Max. Marks : 80 |
| Q1) Ar | nswer the following (Any Eight): | $[8 \times 2 = 16]$ |
| a) | What is an Array? | |
| b) | Define Time complexity. | |
| c) | What is factorial number? | |
| d) | What is Algorithm? | |
| e) | List searching techniques. | |
| f) | Explain column majors of matrix. | |
| g) | What is flow chart? | |
| h) | Explain 2-Dimensional array in brief. | |

Q2) Answer the following (Any Four):

What is mean?

i)

- a) Explain advantages of recurssion.
- b) Explain binary search with example.

- c) Explain different approaches for designing an Algorithm.
- d) Write an algorithm to find minimum of an array.
- e) Write an Algorithm to calculate netpay = basic + DA + HRA for gives basic & DA is 80%, HRA 20% PF-25% of basic.

Q3) Answer the following (Any Four):

 $[4 \times 4 = 16]$

- a) Explain program developing life cycle.
- b) Explain symbols of flow chart.
- c) Draw a flowchart to calculate sum of digits of given number.
- d) Explain quick sort with example.
- e) Write an Algorithm to find given number is prime or not.

Q4) Attempt the following (Any Four):

 $[4 \times 4 = 16]$

- a) Write advantages and disadvantages of algorithms.
- b) Explain types of array with examples.
- c) Draw a flow chart to calculate x^y .
- d) Draw a flow chart to find maximum of three numbers.
- e) Write an Algorithm to print Fibonacci series upto 'n' term.

Q5) Attempt the following (Any Four):

- a) Compare Linear search and binary search.
- b) Explain the term upper and lower triangle matrix.
- c) Write an algorithm to check leap year.
- d) Write an algorithm for sum of 'n' given numbers.
- e) Draw a flow chart to check given number is Armstrong or not.

| Total I | No. of Questions : 5] | SEAT No.: |
|---------------|--|--------------------------------------|
| P97 | [4/68]-1004 | [Total No. of Pages : 2 |
| | F.Y. B.C.A. | |
| | 104: BUSINESS COMMUNIC | |
| | (Semester-I) (2013 Patter | rn) |
| Time: | : 3 Hours] | [Max. Marks : 80 |
| Instru | actions to the candidates: | |
| 1) | l) All questions are compulsory. | |
| 2) | P) Figures to the right indicate full marks. | |
| _ | Give meaning of the term 'communication'. Highlique communication. | ght the principles of effective [15] |
| | OR | |
| | What do you mean by 'non-verbal communication and limitations of non-verbal communication. | ion'? Bring out advantages |
| | | |
| <i>Q2)</i> H | Enumerate the principles of good listening. | [15] |
| | OR | |
| I | Define the term 'business correspondence'. High | light its need |
| - | zeme une um cusmoss concesponación i ingn | 11.51.0 100 1100 01. |
| Q 3) a | a) What are the advantages of video conference | ing? [7] |
| | | |
| ŀ | b) Draft a circular letter announcing the retirem | ent of a partner of your firm. [8] |
| | OR | |

State and explain do's for effective group discussion.

You are managing partner of a firm, dealing with perfumeries in Jalgaon.

Draft a reply to an enquirer from Mumbai, furnishing quotations for a

a)

b)

wide range of goods.

[7]

[8]

Q4) Write a detailed note on 'Curriculum Vitae' highlighting its contents and importance. [15]

OR

Bring out advantages and limitations of internet and social media sites.

Q5) Write short notes on (Any Four):

[20]

- a) Importance of communication.
- b) Body Language.
- c) Techniques of effective speaking.
- d) Overcoming barriers to communication.
- e) Limitations of written communication.
- f) Barriers to listening.
- g) Presentation skills.

••••

| Total No. of Questions : 5] | | SEAT No.: |
|-----------------------------|-------------|-------------------------|
| P977 | [4768]-1005 | [Total No. of Pages : 2 |

B.C.A. 105: PRINCIPLES OF MANAGEMENT (Semester-I) (2013 Pattern)

Time: 3 Hours [Max. Marks: 80

Instructions to the candidates:

- 1) All questions are compulsory.
- 2) All questions carry equal marks.
- **Q1)** What is management? Explain the management as an art, a science and a profession.

OR

What is organisation? Explain the essential features of a sound organisation structure.

Q2) Explain the contribution of Human Relations theory as developed by Elton Mayo.

OR

Define decision making. What are the various types of decisions.

- *Q3*) Write notes:
 - a) Importance of planning.
 - b) Limitations to Delegation of Authority.

OR

What is leadership? Distinguish between autocratic and democratic style of leadership.

Q4) Define control. Explain the features of control.

OR

What is strategic management? Critically examine strategic management practices in India.

- **Q5)** Write short notes on (Any Four):
 - a) Disaster Management.
 - b) Importance of Motivation.
 - c) Principles of Direction.
 - d) Stress Management.
 - e) Organisational Communication.
 - f) Management and Social Responsibility.

••••

| Total No. of Questions : 7] | | SEAT No. : |
|-----------------------------|--------------|-------------------------|
| P944 | [4768] - 101 | [Total No. of Pages : 1 |
| | B.C.A. | |

BUSINESS COMMUNICATION (2008 Pattern) (Semester - I) Time: 3 Hours] [Max. Marks: 80 Instructions to the candidates: 1) Attempt any five questions. Figures to the right indicate full marks. **Q1)** What are the barriers in communication? How will you overcome barriers in communication. [16] **Q2)** What is listening? State and explain the principles of good listening. [16] Draft an Application letter for the post of sales executive in Ajanta **Q3**) a) Pharmaceuticals co.Ltd Talgaon. [8] Write a reply to your customer m/s mahajan brothers Raviwar peth Pune, b) regarding his complaint about mistake in the invoice. [8] **Q4)** Distinguish between written and oral communication. [16] **Q5)** What is effective speech? Explain in detail techniques of effective speech. [16] **Q6)** What is business letter? Explain layout of Business letter. [16] **Q7)** Write short notes (Any Two): [16] Merits and limitations of silence communication. b) Oral report. Closed Circuit T.V. c)

Telephone answering. d)

| Total No. of Questions : 5] | | SEAT No. : |
|-----------------------------|----------------|-----------------------|
| P945 | [4768] - 102 | [Total No. of Pages : |
| | B.C.A. | |
| (112) PRIN | CIPLES OF MANA | GEMENT |

Time: 3 Hours [Max. Marks: 80

(2008 Pattern) (Semester - I)

Instructions to the candidates:

- 1) All questions are compulsory.
- 2) All questions carry equal marks.
- **Q1)** What is management? What are the characteristics of management?

OR

Critically examine Elton Mayo's Howthorne Experiment.

Q2) What is delegation of authority? Explain the need of delegation.

OR

Write notes on:

- a) Decision Making Process.
- b) Functions of a Leader.
- **Q3)** Evaluate the Maslow's Need Hierarchy Theory of Motivation.

OR

Define control. Explain the need and importance of control.

Q4) Explain the importance and principles of effective organisational communication.

OR

Write notes on

- a) Social Responsibility of Management.
- b) Organisational Changes.

Q5) Write short notes (Any Four):

- a) Strategic Management.
- b) Direction.
- c) Need of co-ordination.
- d) Stress Management.
- e) Management as a profession.
- f) Total Quality Management.

+ + +

| Total No. of Q | uestions: 5] |
|----------------|--------------|
|----------------|--------------|

| SEAT No. : | |
|------------|--|
|------------|--|

[Total No. of Pages: 3

P946

[4768] - 103 F.Y. B.C.A.

113 : Principles of Programming and Algorithm (2008 Pattern) (Semester - I)

Time: 3 Hours [Max. Marks: 80

Instructions to the candidates:

- 1) All questions are compulsory.
- 2) Neat diagram must be drawn wherever necessary.
- **Q1)** Answer the following (Any 8):

 $[8 \times 2 = 16]$

- a) What is variable?
- b) Write syntax for print f(.) statement.
- c) List the types of operators.
- d) List the primitive datatype in C language.
- e) What is compiler?
- f) What is preprocessor?
- g) What is algorithm?
- h) List all arithmetic operators.
- i) Give the use of size of () operator in C.
- **Q2)** Answer the following (any 4):

- a) Write a short note on Array.
- b) Explain switch-case statement with example.
- c) Write a program to print whether the given number is palindrome or not.
- d) Write a program to print the given array in ascending order.
- e) Explain for loop with example.

| 03 | Answer the following | (Anx | 4). |
|-----|-------------------------|------|------------|
| VJ, | / Allswei die following | (/ | T1. |

 $[4 \times 4 = 16]$

- a) Write a short note on algorithm.
- b) Explain call by value and call by reference with example.
- c) Write a C program to generate the following pattern.

1

2 3

4 5 6

- d) Write a C program for multiplication of 2 matrices.
- e) Explain the following terms:
 - i) break
 - ii) continue
 - iii) exit
 - iv) goto

Q4) Answer the following (Any 4):

 $[4 \times 4 = 16]$

- a) Write down the features of C programming.
- b) Explain printf() and scan f() statements with example.
- c) Explain preprocessor directives with example.
- d) Trace the following out put and explain

```
void main()
{
     print f("\n%d %d%d", size of ('3'), size of (3), size of (30));
}
```

[4768]-103

e) Trace the following output and explain

```
void main ( )
{
    int a[5] = {5, 1, 15, 20, 25};
    int i, j, m;
    i = + + a[1];
    j = a[1] + +;
    m = a[i + +];
    printf ("%d %d %d", i, j, m);
}
```

Q5) Answer the following (Any 4):

 $[4 \times 4 = 16]$

- a) What is recursion? Explain in brief.
- b) Explain primitive datatypes in C programming.
- c) Write an algorithm to print maximum number of an array.
- d) Write a program to print fibonacci series upto n terms.
- e) Explain concept and use of header files.

• • •

| Total No. of Questions: 5] | | SEAT No. : |
|----------------------------|--------------|-------------------------|
| P947 | [4768] - 104 | [Total No. of Pages : 3 |
| | B.C.A. | |

114: COMPUTER FUNDAMENTALS AND OFFICE AUTOMATION (2008 Pattern) (Semester - I)

Time: 3 Hours [Max. Marks: 80

Instructions to the candidates:

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

Q1) Answer the following (Any Eight):

[16]

- a) Define algorithm.
- b) Write full forms of:
 - i) WYSIWYG
 - ii) GUI
- c) Write any two features of MS-Excel.
- d) List any four secondary storage devices.
- e) Define operating system.
- f) What is the need of batch file?
- g) Define spreadsheet.
- h) Write the purpose of following commands:
 - i) rmdir
 - ii) ls
- i) Define the term desktop.
- j) What is non-volatile memory.

Q2) Answer the following (Any four):

 $[4 \times 4 = 16]$

- a) Differentiate between compiler and interpreter.
- b) Draw & explain flowchart symbols.
- c) Write a note on control panel.
- d) Write purpose & syntax of four external commands.
- e) Write a note on booting process.

Q3) Answer the following (Any four):

 $[4 \times 4 = 16]$

- a) Write advantages & disadvantages of flowchart.
- b) Write a batch file that performs following tasks:
 - i) Display current date & time.
 - ii) Display the contents of file PQR.txt.
 - iii) Copy a file PQR.txt to D drive.
 - iv) Delete file ABC.txt.
- c) Write a note on magnetic tape.
- d) Differentiate between primary & secondary memory.
- e) Draw a flowchart to calculate area of circle.

Q4) Answer the following (Any four):

- a) Write an algorithm to check whether a given number is prime or not.
- b) What is chart? Explain different types of charts in MS-excel.
- c) Differentiate between DOS & Linux.
- d) Explain characteristics of computer.
- e) Write a note on HLL.

Q5) Answer the following (Any four):

- a) Draw a block diagram of computer & explain.
- b) Write any four features of MS-Word.
- c) Perform the following:
 - i) $(596)_{10} = (?)_8$
 - ii) $(60)_{10} = (?)_2$
 - iii) $(1\ 1\ 0\ 1\ 1\ 1\ 0)_2 = (?)_8$
 - iv) $(1\ 0\ 0\ 1)_2 = (?)_{10}$
- d) Write a note on types of RAM.
- e) Explain multiprogramming operating system & multiprocessing operating system.



| Total No. of Questions: 5] | | | SEAT No. : |
|----------------------------|--------|-----|-------------------------|
| P948 | [4769] | 105 | [Total No. of Pages : 4 |

[4768] - 105 F.Y. B.C.A. BUSINESS ACCOUNTING (2008 Pattern) (Semester - I)

| | | · | | |
|---------------|---------------|--|--------------|-----------------------------------|
| Time: 3 | <i>Hours)</i> | , | | [Max. Marks : 80 |
| Instructi | ons to | the candidates: | | |
| 1) | All qu | estions are compulsory. | | |
| 2) | _ | es to the right indicate full | marks. | |
| 3) | Use of | f calculator is allowed. | | |
| Q1) a) | Fill | in the blanks: | | [5] |
| | i) | Only transactions | s are record | ed in the books of Accounts. |
| | ii) | Journal is a book of ori | iginal | _• |
| | iii) | There are Types | of balances | in Accounts. |
| | iv) | Normally personal and | Real Acco | unt are |
| | v) | issues Accounting | ng standard | in India. |
| b) | Stat | te whether the following | statements | are True or False: [5] |
| | i) | All Accounting standar | ds are man | datory. |
| | ii) | Closing stock is valued | l at the end | of the year at Market price only. |
| | iii) | Profit and Loss According Gross Loss. | unt is prepa | ared to ascertain Gross Profit/ |
| | iv) | The minor cash payment petty expenses. | ent are terr | ned as petty cash payments or |
| | v) | A pass book is issued b | by the bank | er to the customer. |
| c) | Ma | tch the followings: | | [5] |
| | | 'A' | | 'B' |
| | 1) | Return Inward | i) | Book Debts |
| | 2) | Sundry Debtors | ii) | Transportation on sales |
| | 3) | Carriage outward | iii) | Fixed Asset |
| | 4) | Live stock | iv) | Sales Return |
| | 5) | Straight line method | v) | depriciated value becomes zero |

d) Classify the following accounts into personal Account, Real Account and Nominal Account. Loose Tools A/c i) ii) Prepaid insurance A/c Loan Account iii) iv) P's capital Account Bank A/c v) **Q2)** What is Accounting standard? Explain advantages of Accounting standards and arguments against setting accounting standards. [12] OR What is book keeping? State the difference between book keeping and

Accounting. [12]

- *Q3*) a) Journalise the following transactions in the books of S.Palkar for the month of December, 2013 [8]
 - 1. S. Palkar started business with cash Rs. 50,000.
 - 7. Deposited Rs. 25,000 into the bank.
 - 9. Purchased Goods from sita Rs. 5000.
 - Sold Goods to Maya Rs. 3000. 11.
 - 15. Purchased Furniture for Rs. 3000.
 - 19. Sold Goods for cash Rs. 2000.
 - 20. Paid carriage Rs. 50.
 - 25. Received commission Rs. 25.

b) Calculate the amount of depreciation under straight line method in each of the following Machines. [8]

| Types of Machine | Purchase | Expenses | Residual | Expected |
|------------------|----------|-------------|----------|----------|
| | Price | to be | value | Life |
| | | Capitalised | | |
| | (Rs.) | (Rs.) | (Rs.) | years |
| A | 80,000 | 20,000 | 40,000 | 4 |
| В | 17,000 | 3,000 | 2,000 | 10 |

Q4) Disha Trading company, Pune deposits its daily collection of cash and cheque into the bank on the same day and makes all payments by cheque. Write up the cash book from the following cash and bank transactions for May 2014.

[16]

- 1. Bank Balance Rs. 5,000.
- 3. Received from Narayan Rs. 1,200 in full settlement of Rs. 1,240 for sale of office equipment.
- 6. Borrowed Rs. 10,000 from Mr. Naresh @ 10% p.a.
- 8. Paid to Nabab Rs. 800 by cheque and received a discount of Rs. 20.
- 11. Supplied to Naman Goods of Rs. 1,800 as per his order and allowed a cash discount for Rs. 60 for cash.
- 14. Bought office Type writer for Rs. 2,750 and received a discount of Rs. 50, balance paid by cheque.
- 16. Withdrew Rs. 500 from Bank for domestic purposes.
- 19. Transferred Rs. 2000 from Bank current A/c to Bank saving A/c.
- 22. Drew Rs. 1,000 for petty cash.
- 24. Paid salary Rs. 1,200 by cash and Rs. 800 by cheque.
- 26. Received a cheque of Rs. 370 from Nakul in full settlement of Rs. 400 and endorsed to Nupurin full settlement of Rs. 420.
- 28. Received instructions from Bank for direct deposit of Rs. 640 by our customer, Navin.

Q5) From the following Trial Balance of Bharat Bonsode, Nashik, prepare the Final Accounts as on 31st March 2013. [16]

| Debit | Rs. | Credit | Rs. |
|------------------------|----------|--------------------|----------|
| Land & Buildings | 87,000 | B's Capital | 2,00,000 |
| Plant & Machinery | 17,500 | Sales Less Returns | 94,000 |
| Goodwill | 20,000 | Reserve for D.D | 1,500 |
| B's Drawings | 22,600 | Creditors | 7,500 |
| Cash in hand | 1,795 | | |
| Stock on 1.4.2012 | 27,000 | | |
| Wages | 10,000 | | |
| Purchase Less Returns | 69,000 | | |
| Carriage inward | 600 | | |
| Traveller's Commission | 6,000 | | |
| Insurance | 2,000 | | |
| Motor Car | 3,000 | | |
| Carriage outward | 1,400 | | |
| Salaries | 15,000 | | |
| Bank Charges | 105 | | |
| Debtors | 20,000 | | |
| | 3,03,000 | | 3,03,000 |

The following adjustments are to be considered:

- a) On 31st March 2013, the stock was valued at Rs. 46,000.
- b) Insurance premium amounting to Rs. 800 is prepaid.
- c) Outstanding salaries amounted to Rs. 1000.
- d) Depreciate plant & Machinery @ 10% p.a. and Motor car @ 20% p.a.
- e) Create a Reserve for Doubtful Debts @ 10% on debtors.



| Total No. of Questions : 4] | | SEAT No.: | |
|-----------------------------|-------------|-----------|----------------|
| P978 | [4760] 2001 | [Total] | No. of Pages : |

[4768]-2001 F.Y. B.C.A.

201: PROCEDURE ORIENTED PROGRAMMING USING-C (Semester-II) (2013 Pattern)

Time: 3 Hours [Max. Marks: 80

Instructions to the candidates:

- 1) All questions are compulsory.
- 2) Neat diagram must be drawn wherever necessary.
- 3) Use Ansi C Method.
- **Q1)** Answer the following (Any Ten):

 $[10 \times 2 = 20]$

- a) What is Indirection operator.
- b) Give syntax to define self Referential structure.
- c) Explain strlen() and strcpy().
- d) What are the different types of files?
- e) How is a union Declared and Initialized?
- f) Define string with an example.
- g) Define pointer to pointer.
- h) What is the significance of argv[0]?
- i) List primary data types in C language.
- j) "Size of is an operator in 'c'" state true or false.
- k) List all Bitwise operator.
- l) Define structure with an example.

Q2) Attempt Any Four of the following:

 $[4 \times 5 = 20]$

- a) What is pointer? Explain Array of pointer in detail.
 - i) Putc() and f putc().
 - ii) fprintf() and fscanf()
- b) Compare Macro with functions.
- c) What is Dynamic Memory Allocation? Explain functions used to allocate and delete memory dynamically.
- d) How can Array be passed to function? Explain with example.
- e) Define recursion. Explain recursion with example.

Q3) Attempt Any Four of the following:

 $[4 \times 5 = 20]$

- a) Write a 'C' program to cheek if given string is palindrome or not using pointers.
- b) Create 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 then 10,000.
- c) Write a C program to accept a four digit number from user and count zero, odd and even digits of the entered number.
- d) Write a 'C' program to accept a string from user and generate following pattern

```
(e.g. input is string "abcd").
```

a

a b

a b c

a b c d

a b c

a b

a

e) Write a 'C' program to convert upper case to lower case by using file.

```
Q4) Trace output and justify:
```

 $[5 \times 4 = 20]$

```
Main()
a)
     {
          int a [5] = \{5, 1, 15, 20, 25\};
          int i, j, m;
          i = ++a[1];
          j = a[1]++;
          m = a [i++];
     printf("%d %d %d", i, j, m);
          getch();
     }
     #define PRODUCT (x)(x*x)
b)
     main()
     {
          int i = 3, j;
          j = PRODUCT (i + 1);
          printf ("\n %d", j);
     }
     Main()
c)
     {
          int i = -5, j = -2;
               junk(i, &j);
          printf("i=\%d\ j=\%d\n",\,i,\,j);
          junk (int i, int*j)
                {
                    i=i*j;
                    *j=*j**j;
                }
                                    3
```

```
Main()
d)
      {
             char s[] = "Aw what the breek";
             printf ("%s", s);
             printf ("ln%c", s[3]);
             printf ("ln%c", s[1]);
      }
      Main()
e)
      {
             Char s_1[\ ] = "FYBCA SYBCA TYBCA";
             Char s_2[20];
             Char s_3[20];
             scanf (s<sub>1</sub>, "%s %s %s", s<sub>1</sub>, s<sub>2</sub>, s<sub>3</sub>);
             printf ("%s, %s, %s", s<sub>1</sub>, s<sub>2</sub>, s<sub>3</sub>);
             }.
```

••••

| Total No. of Questions : 5] | | SEAT No. : |
|-----------------------------|-------------|-------------------------|
| P979 | [4768]-2002 | [Total No. of Pages : 3 |
| | B.C.A. | |

202: DATABASE MANAGEMENT SYSTEM (Semester-II) (2013 Pattern) (New)

Time: 3 Hours [Max. Marks: 80

Instructions to the candidates:

- 1) All questions are compulsory.
- 2) Draw neat diagrams wherever necessary.
- **Q1)** Answer the following (Any Four):

 $[4 \times 4 = 16]$

- a) Explain primary key and foreign key with suitable example.
- b) What are logical and physical files.
- c) Explain object oriented model.
- d) List various users of DBMS & specify their jobs.
- e) Explain advantages and disadvantages of DBMS.
- **Q2)** Answer the following (Any Four):

 $[4 \times 4 = 16]$

- a) What are anomalies of un-normalized database?
- b) Explain Basic file operation.
- c) List various DDL commands. Explain any one with example.
- d) Explain select and project operation in Relational Algebra.
- e) What are different aggregate functions in sql.

Q3) Attempt the following:

[16]

Consider the following entities and their relationship:

Game (gno, gname, no-of-player, coachname)

player (pno, pname)

Game and player are related with many-to-many relationship.

Create RDB in 3NF and solve the following queries by using SQL (any five):

- a) Insert a row in Game table.
- b) List total number of players playing "Basket Ball".
- c) Display all players having coach as "Mr. Dixit".
- d) Add birth date column to player table. Use alter table command.
- e) List all games played by Amit.
- f) Count total No. of players whose coach name is "Mr. Sharma".

Q4) Answer the following (Any Four):

 $[4 \times 4 = 16]$

- a) Write a note on normalization.
- b) Explain the terms or commands
 - i) Group By
 - ii) Entity
 - iii) Order By
 - iv) Domain
- c) Explain entity and attributes and explain its types.
- d) Explain dense and sparse index.
- e) Explain sequential file organization in detail.

Q5) Attempt the following:

[8]

a) A reputed general hospital has decided to computerized its operations. In hospital many doctors are working. The patients are admitted to the hospital, into the room. There they are treated by various doctors. Some times patients have to undergo certain pathological tests, which are carried out in the labs.

[4768]-2002

A database should provide following details.

- i) Identify all entities.
- ii) Identify all relationship.
- iii) Draw E-R diagram.
- b) Consider relational database:

[8]

customer (cust-no, cust-name, address, city)

Loan (loan-no, loan-amt, loan-date, cost_no)

Customer and loan are related with one to many relationship.

Write relational algebric expression for the following:

- i) List loan details of customer name as "Mr-Shinde".
- ii) List names of customer who have taken loan of amount more than 50,000.
- iii) List names of customer who stay in city "Mumbai".
- iv) Display customer with loan amount greater than 1,00,000.



| Total No. | of Questions | : | 8] |
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|-----------|--------------|---|----|

| Total | 110. | 01 | Ųι | iesi | 1011 | 18 | oj |
|------------|------|----|----|------|------|----|----|
| P98 | 80 | | | | | | |

| SEAT No.: | | | |
|-----------|--------------|---|---|
| [Total | No. of Pages | : | 1 |

[4768]-2003 B.C.A.

ORGANISATIONAL BEHAVIOUR (Compostor II) (2012 Dattorn)

| | | (Semester-II) (2013 Pattern) | |
|-------|-----------|---|-------------------------|
| Time | 2:3 | Hours] | [Max. Marks: 80 |
| Instr | ucti | ons to the candidates: | |
| | <i>1)</i> | Solve any five questions. | |
| | 2) | All questions carry equal marks. | |
| Q1) | Ex | plain in detail concepts of Total Quality Management. | [16] |
| Q2) | De | fine the term 'Attitude'. Explain the Effects of Employee | Attitudes. [16] |
| Q3) | Def | fine Motivation. Explain in detail nature and importance of | Motivation. [16] |
| Q4) | Wł | nat is Personality? Explain various determinants of Persona | ality. [16] |
| Q5) | Wł | nat is stress? Explain the Nature and Types of Stress. | [16] |
| Q6) | | nat are the different levels of conflicts? Explain the Positifect of Conflict. | ve and Negative [16] |
| Q7) | | nat do you mean by Resistance to Change? How organization resistance to Change? | ns can overcome [16] |
| Q8) | Wr | rite explanatory notes on (Any Two): | $[2 \times 8 = 16]$ |
| | a) | Importance of Organizational Behaviour. | |
| | b) | Perception. | |
| | ` | T | |

c) Types of Groups.

| Total No. | of Questions | : | 5] | |
|-----------|--------------|---|----|--|
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[Total No. of Pages: 4

P981

[4768]-2004 F.Y. B.C.A.

204: COMPUTER APPLICATIONS IN STATISTICS (Semester-II) (2013 Pattern)

Time: 3 Hours] [Max. Marks: 80

Instructions to the candidates:

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

Q1) Attempt Any Four of the following:

- a) Define Permutation and Combination. State the formula of ${}^{n}P_{r}$ and ${}^{n}C_{r}$.
- b) There are 8 points in a plane of which 3 are collinear. Find the number of lines that can be drawn using these points.
- c) Define Simulation. State some applications of Simulation.
- d) If ${}^{18}C_{r+2} = {}^{18}C_{2r-5}$, then find the value of ${}^{3r}C_{20}$.
- e) Determine which of the following are Deterministic or Non-deterministic experiments:
 - i) Winning Team of Programming Competition out of 15 teams.
 - ii) Sex of a new born baby.
 - iii) Result of multiplication of the numbers 21 and 45.
 - iv) Number of defective articles in a lot of 50 articles.
- f) If X follows B(10, 0.4), then find i) $P(X \le 2)$, ii) $P(X \ge 2)$.

Q2) Attempt Any Four of the following:

 $[4 \times 4 = 16]$

- a) State probability mass function of Discrete Uniform Distribution. State its Mean and Variance.
- b) How many permutations of the letters A, B, C, D, E, F and G contain
 - i) The string BCA
 - ii) The string AB and CD?
- c) Let A and B be two events on Ω such that P(A) = 0.9, P(B) = 0.5, $P(A \cup B) = 0.7$. Find $P(A \cap B)$ and $P(A \cap B')$.
- d) Define the following terms:
 - i) Random Experiment
 - ii) Sample Space
 - iii) Event
 - iv) Trial
- e) In a certain region, the probability that it rains on any given day is 0.2. Use Binomial Distribution to evaluate the probability that in seven days chosen at random, it rains on at most one day.
- f) Define Bernoulli distribution. State relationship between Bernoulli and Binomial distribution.

Q3) Attempt Any Four of the following:

- a) If a random variable X has discrete Uniform distribution with parameter n, find the value of 'n' if E(X) = 3Var(X).
- b) Write note on Binomial Distribution.
- c) Generate a random sample of size 4 using Linear Congruential Generator $X_{i+1} = (3Xi + 6) \mod 10$ with $X_0 = 1$.
- d) A bag contains 30 tickets numbered from 1 to 30. One ticket is selected at random. Find the probability that its number is either odd or a square of an integer.

- e) Write a note on Monte Carlo Simulation.
- f) In a random arrangement of all letters of the word 'BACKLOG'. Find the probability that the two vowels come together.

Q4) Attempt Any Four of the following:

- a) Define the following terms:
 - i) Elementary event
 - ii) Impossible event
 - iii) Certain event
 - iv) Exhaustive events
- b) The probability of defective bolt is 0.1. Let X denotes number of defective bolts in a box of 20 bolts. Identify the distribution of X and also find mean and variance of X.
- c) Write down sample spaces for the following:
 - i) Answer to an objective question which has 4 multiple choice A, B,C, D. Student ticks a single correct answer.
 - ii) A coin is tossed until head appears.
 - iii) Number of customers visiting to the Departmental Store is noted down.
 - iv) The life of an electronic component.
- d) Let A and B be two events with P(A) = 0.5, $P(A \cup B) = 0.8$, P(B) = p, find 'p' if A and B are independent.
- e) A roulette wheel is divided into 25 sectors of equal area numbered from 1 to 25. Let X be the number that occurs when the wheel is spun. Find i) Probability mass function of X ii) P(X > 20).
- f) Explain the concept of Random Number Generator.

Q5) Attempt Any Two of the following:

 $[2 \times 8 = 16]$

a) Let A and B be two events defined on sample space. If P(A) = 3/8, P(B) = 1/2 and $P(A \cap B) = 1/4$. Find

i)
$$P(A \cup B)$$

ii)
$$P(A' \cap B)$$

iii)
$$P(A \cap B')$$

iv)
$$P(A' \cap B')$$
.

b) The number of T.V. sets sold by a salesman per day is a discrete uniform random variable taking values 0, 1, 2, 3, 4. Simulate the number of T.V. sets sold in a week using following random numbers:

c) Simulate a project completion time for 5 projects if the probability distribution of time required to complete the project is as follows:

| Project completion time in months (X) | 1 | 2 | 3 | 4 | 5 |
|---------------------------------------|------|------|------|------|------|
| Probability P(X) | 0.10 | 0.15 | 0.30 | 0.25 | 0.20 |

Use following random numbers:

••••

| Total No. of Questions | : 5] | SEAT No. : |
|------------------------|-----------------------------|-------------------------|
| P982 | [4768]-2005 | [Total No. of Pages : 2 |
| | B.C.A. | |
| 2 | 205 : E-COMMERCE CONC | CEPTS |
| | (Semester-II) (New 2013 Pat | tern) |

Time: 3 Hours | [Max. Marks: 80

Instructions to the candidates:

- 1) All questions are compulsory.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to right indicate full marks.

Q1) Answer the following (Any Eight):

[16]

- a) What is extranet?
- b) What is paperless billing?
- c) What is electronic cash?
- d) Define digital envelope.
- e) What is electronic fund transfer?
- f) Define hacker.
- g) What is encryption?
- h) State any two applications of E-commerce.
- i) What is RTGS?
- i) What is ATM?

Q2) Attempt Any Four of the following:

[16]

- a) Define internet. State it's advantages.
- b) Write advantages & limitations of ATM.
- c) Explain benefits of website.
- d) What is electronic cheque? Explain it's advantages.
- e) What is electronic payment system? Explain it's advantages.

| Q 3) | Atter | npt Any Four of the following: | [16] |
|-------------|-------|--|------|
| | a) | What is virus? Explain types of virus. | |
| | b) | Explain advantages of intranet. | |
| | c) | Explain advantage of E-Commerce. | |
| | d) | Explain symmetric key encryption in detail. | |
| | e) | What is phishing? Explain steps of phishing. | |
| | | | |
| Q4) | Atte | mpt Any Four of the following: | [16] |
| | a) | Explain working of B2B. | |
| | b) | What is internet service provider? Explain it with it's types. | |
| | c) | Explain types of electronic payment system. | |
| | d) | Explain applications of E-Commerce. | |
| | e) | Explain Limitations to encryption solution. | |
| | | | |
| Q5) | Writ | te short notes on (Any Four): | [16] |
| | a) | Digital signature. | |
| | b) | Credit card system. | |
| | c) | Banner exchange. | |
| | d) | Hacking. | |
| | e) | Internet banking. | |
| | | | |

2

| Total No. of Questions: 8] | | | SEAT No. |
|----------------------------|--------|-----|----------|
| P949 | [4770] | 201 | [Tot |

[Total No. of Pages: 1

[4768] - 201B.C.A.

211: ORGANISATIONAL BEHAVIOUR

(2008 Pattern) (Semester - II) Time: 3 Hours] [Max. Marks: 80 Instructions to the candidates: 1) Solve any five questions. 2) All questions carry equal marks. Q1) Define Organization Behaviour. Explain the fundamental concept and models of Organizational Behaviour. [16] **Q2)** What is Attitude? Explain Nature & Functions of Attitude. [16] Q3) Define Motivation. Explain in detail Theory X and Theory Y of Motivation. [16] **Q4)** What is Personality? Explain any two theories of Personality. [16] **Q5)** What are the Causes of Stress? Explain. [16] **Q6)** Define Leadership. Explain various qualities and functions of effective leaders. [16] **Q7)** What is Conflict? Explain process of conflict. [16] $[2 \times 8 = 16]$ **Q8)** Write explanatory notes on (Any Two): Managing the Cultural Diversity. a)

- Features of Total Quality Management.
- c) Styles of Leadership.

| Total No. | of Questions | : | 5] |
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| SEAT No. : | |
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P950

[4768] - 202 B.C.A. [Total No. of Pages: 4

ELEMENT OF STATISTICS (2008 Pattern) (Semester - II)

Time: 3 Hours] [Max. Marks: 80

Instructions to the candidates:

- 1) All questions are compulsory.
- 2) Figures to the right indicate full marks.
- 3) All questions carry equal marks.
- 4) Use of statistical table and calculator is allowed.
- 5) Symbols and abbreviations have their usual meanings.

Q1) Attempt any four of the following:

- a) What are the merits and demerits of Arithmetic mean?
- b) Explain the scope of statistics in management sciences.
- c) A set of 10 values has arithmetic mean 20. Find the arithmetic mean if each value is
 - i) doubled
 - ii) increased by 5 and then doubled
 - iii) each value is decreased by 5
 - iv) increased by 3.
- d) Compute standard deviation of the following grouped frequency distribution:

| Weight (in kg) | 30-40 | 40-50 | 50-60 | 60-70 | 70-80 |
|-----------------|-------|-------|-------|-------|-------|
| No. of Students | 3 | 5 | 12 | 20 | 10 |

- e) Find ⁴P₂, ⁶C₂, ⁸P₂, ⁶C₄
- f) What is the probability that a non-leap year will contains 53 Thursday.

Q2) Attempt any four of the following:

 $[4 \times 4 = 16]$

a) What are the advantages of sampling method over census method?

b) Define the following terms with illustration:

i) Mutually exclusive events.

ii) Exhaustive events.

c) Compute the values of:

i) ⁵P₂

ii) ⁹C₃

iii) ${}^{7}P_{6}$

iv) ${}^{7}P_{2} \times {}^{8}C_{2}$

d) Find the missing frequency from the following data, given that the median of marks is 23:

| Marks | 0-10 | 10-20 | 20-30 | 30-40 | 40-50 |
|-----------------|------|-------|-------|-------|-------|
| No. of Students | 5 | 8 | - | 6 | 3 |

e) Following is the frequency distribution of number of students according to the marks scored in certain examination.

| Marks | Below 20 | 20-40 | 40-60 | 60-80 | 80-100 |
|-----------------|----------|-------|-------|-------|--------|
| No. of Students | 15 | 24 | 32 | 10 | 8 |

answer the following questions:

i) State the type of classification.

ii) Class width of second class.

iii) State the open end class.

iv) Number of students scoring marks more than 80.

f) For asymmetric distribution if median = 72, mean = 78 find mode.

Q3) Attempt any four of the following:

 $[4 \times 4 = 16]$

- a) Explain the scope of statistics in Management sciences.
- b) What are the requirements of good measure of central tendancy?
- c) If P(A) = 0.3, P(B) = 0.4, $P(A \cup B) = 0.5$ then find $P(A' \cap B')$, $P(A \cap B)$.
- d) Two cards are drawn at random from the pack of 52 cards. What is the probability that:
 - i) both are face cards.
 - ii) both are red cards.
- e) Arithmetic mean and S.D. of 12 items are 22 and 3 respectively. Later on it was found that the item 32 wrongly taken as 23. Find the correct mean and S.D.
- f) Find the Geometric Mean for the following data: 2, 8, 20, 62, 54.

Q4) Attempt any four of the following:

- a) What is dispersion? Explain absolute and relative measure of dispersion.
- b) What is classification? Explain inclusive and exclusive classification.
- c) A group of 50 items have mean and S.D. 61 and 8 respectively. Another group of 100 items have mean and S.D 70 and 9 respectively. Find the mean and S.D. of combined group.
- d) The probability that a contractor will get a plumbing contract is 0.4 and the probability that he will get an electric contract is 0.3. If the probability of getting atleast one contract is 0.6 then find the probability that he will get both the contract?
- e) Write note on 'C' chart.
- f) Let A and B be any two events defined on sample space Ω . If P(A) =

$$\frac{1}{4}$$
, P(B/A) = $\frac{3}{4}$ P(A/B) = $\frac{1}{4}$ then prove that P(A'/B') = $\frac{3}{4}$

Q5) Attempt any two of the following:

 $[2 \times 8 = 16]$

a) Construct np-chart for the following data and state your conclusions; (for sample size 200)

| Sample No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-------------------|----|----|----|----|----|----|---|----|----|----|
| No. of defectives | 18 | 36 | 48 | 21 | 21 | 33 | 9 | 33 | 24 | 12 |

b) Construct Average and Range Chart for the following data:

| Sample No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|------------|------|------|------|------|------|------|------|------|------|------|
| \bar{X} | 14.2 | 13.9 | 15.5 | 12.1 | 14.1 | 13.2 | 12.9 | 13.5 | 13.1 | 12.8 |
| R | 2 | 2.5 | 2.8 | 2.5 | 3 | 1.9 | 2.1 | 3.9 | 3.1 | 2.1 |

(Given that for n = 5, $A_2 = 0.577$, $D_3 = 0$, $D_4 = 2.115$)

c) Prices (in Rs.) of a particular commodity in 5 years in two cities are given below:

| Prices in city Pune | 20 | 22 | 19 | 23 | 26 |
|-----------------------|----|----|----|----|----|
| Prices in city Mumbai | 10 | 20 | 18 | 12 | 15 |

Which city has more stable prices? Why.

Total No. of Questions : 4]

| SEAT No. : | |
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[Total No. of Pages: 4

P951

[4768] - 203 F.Y. B.C.A. (213) 'C' PROGRAMMING (2008 Pattern) (Semester - II)

Time: 3 Hours [Max. Marks: 80

Instructions to the candidates:

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

Q1) Attempt any ten of the following:

 $[10 \times 2 = 20]$

- a) "Data type of all elements in an array must be same" state whether True/False and justify your answer.
- b) What is the use of streat ().
- c) What is Masking?
- d) Give the syntax and use of fopen ().
- e) Define Preprocessor.
- f) What is the difference between array and structure.
- g) Give the syntax of declaring pointer.
- h) List the difference between get c () and put c ().
- i) List the different file opening modes.
- j) What is the significance of arg c?
- k) Define string. Give the syntax of declaring a string.
- l) List the different Bitwise operators.

Q2) Answer the following (Any four):

 $[4 \times 5 = 20]$

- a) Define structure. Explain how to declare and initialize a structure with example.
- b) Write a short note on Macro substitution directive.
- c) Explain syntax and use of:
 - i) fprintf()
 - ii) fscanf()
- d) What is DMA. Explain malloc () and free ().
- e) Explain method of passing array to function.
- *Q3*) Attempt the following (Any four):

 $[4 \times 5 = 20]$

- a) Write a 'C' program to accept 10 numbers from the user and print its average.
- b) Write a 'C' program to find length of string without using standard library function.
- c) Write a 'C' program to accept details of 10 items as item no, name, cost. Display items in ascending order of cost.

(using structures).

- d) Write a 'C' program to accept 10 nos from user. Check if number is positive if it is then store the number in the file.
- e) Write a 'C' program to find transpose of a matrix.

```
Q4) Attempt the following (Any four):
     Note: Find output and justify your answer.
               main()
     a)
          {
               int b[25];
               b[0] = 100;
               b[24] = 200;
            printf (" %d %d," *b, *(b+24) + * (b+0));
          }
     b)
            main()
          {
               struct
                 int num;
                 float f;
                 char mess [50];
            } m;
            m.num = 1;
            m.f = 3.14
               strcpy (m.mess, "Everything looks rosy");
            printf ("%d %f %s\n", m.num, m.f, m.mess);
          }
```

 $[5 \times 4 = 20]$

```
} [4768]-203
```

c)

{

main()

char ch[20];

for (i = 0; i < 4; i ++)

*(ch + i) = 67;

 $*(ch + i) = '\0';$

printf("%s", ch);

int i;

```
# define IS LOWER (a) (a> = 97 && a < = 127)
d)
    # define TOUPPER (a) (a-32)
       main()
     {
         char ch = 'c';
         if (ISLOWER(ch))
         ch = TOUPPER (ch);
       print f("%c", ch);
     }
e)
       main()
    static char str 1 [] = "dills";
    static char str 2 [20];
    static char str 3 [20]="Daffo";
    int K;
    K = stremp (streat (str3, strepy (str2, str1)), "Daffodills");
       printf("k = \%d", k);
     }
```

| Total No. of Q | uestions: 5] |
|----------------|--------------|
|----------------|--------------|

| SEAT No.: | |
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[Total No. of Pages: 3

P952

[4768] - 204 F.Y. B.C.A.

214: FILE STRUCTURE AND DATABASE CONCEPTS (2008 Pattern) (Semester - II)

Time: 3 Hours [Max. Marks: 80

Instructions to the candidates:

- 1) All questions are compulsory.
- 2) Figures to the right indicate full marks.
- *Q1*) Attempt any four:

 $[4 \times 4 = 16]$

- a) List types of File organization techniques? Explain any one in detail.
- b) Explain Data abstraction.
- c) Write a short note on ISAM.
- d) Enlist various DML Commands and explain any one in detail with example.
- e) What is Normalization? Explain its different types.
- **Q2)** Attempt any Four:

- a) Explain Network model with example.
- b) Define the term
 - i) Super key
 - ii) Natural Join
- c) Write short note on Dense Index.
- d) Enlist various users of DBMS and specify their Roles.
- e) What do you mean by Insertion and Deletion Anomalies in Normalization.

Q3) Attempt any Four of the following:

 $[4 \times 4 = 16]$

- a) What is File? Explain file structure.
- b) What are Intersection and project operations in Relational Algebra? Discuss with the help of example.
- c) What is Attributes? Explain its types in detail.
- d) Explain advantages and disadvantages of Relational Database.
- e) Explain Insertion operation of B⁺ tree Index structure.

Q4) Attempt the following:

[16]

Consider the following entities and their relationship

politician (pno, pname, pdesc, constituency)

party (pcode, partyname)

politician and party are related with many-to-one relationships-create a RDB in 3NF and solve the following queries using SQL [any Five]

- a) List all the politicians of the party 'NCB'.
- b) Display the total number of politician in each party for "Pune" constituency.
- c) Add 'pjdate' column to politician table.
- d) Insert a raw in politician table.
- e) Display party name of politician "Ramesh Joshi".
- f) Count the no. of politications of party name "BSM".

Q5) Attempt the following:

- a) Consider a trucking company which is responsible for picking up shipments for warehouses of a retail chain and delivery the shipments to the individual store location. A truck may carry several shipments in a single trip and deliver it to multiple stores. [8]
 - i) Identify all entities.
 - ii) Identify all relations.
 - iii) Draw E-R Diagram
- b) Consider Relational Database

[8]

Student (Sno, Sname, Sbdate, class)

Course (cno, cname)

Results (Sno, Cno, grade)

Write Relational Algebraic expression for the following:

- i) List out student names who have secured grade 'A' in course 'DBMS'.
- ii) Find out the grades of students 'Ram' along with course name.
- iii) Display course detail for students 'Ramesh Modi'.
- iv) List the student details enrolled for 'BCA' course.

• • •

Total No. of Questions: 5]

P953

| SEAT No. | : |
|----------|---|
| | |

[Total No. of Pages : 3

[4768] - 205 B.C.A. COSTACCOUNTING (2008 Pattern) (Semester - II)

| Time : 3 | Hours] | [Max. Marks: 80 |
|---------------|--------|---|
| | - | the candidates: |
| 1) | _ | estions are compulsory. |
| 2) | Figur | e to the right indicate full marks. |
| | | |
| Q1) a) | Fill | in the blanks: (Any Five) [5] |
| | i) | AT Breakeven point Sales is equals to |
| | ii) | Advertisement Expenditure is a part of overheads. |
| | iii) | Aggregate of all the direct cost is known as |
| | iv) | Wages paid to factory supervision is the example of labour. |
| | v) | is the application of costing & cost accounting principles. |
| | vi) | budget covers all the budgets. |
| b) | Indi | cate whether the following Statements are true or false: (Any Five):[5] |
| | i) | Cost Accountancy is the application of costing & cost accounting Principles. |
| | ii) | All indirect expenses are called as overheads. |
| | iii) | A cost Unit is a location, person or item of equipment for which cost may be ascertained & used for the purpose of control. |
| | iv) | In iron & steel industries 'kilometre' is the cost unit. |
| | v) | Job costing is concerned with the cost of an individual job or batch irrespective of the time required for production. |
| | vi) | A budget is presented in financial and / or quantitative terms. |

Q2) What is Cost? How would you classify the Cost? Give suitable Examples.[15] OR

Explain Concept of Cost, Costing, Cost Accounting and Cost Accountancy. State advantages of Cost Accounting.

Q3) Write short notes : (Any Three):

[15]

D c

- a) Features of Job Costing.
- b) Cost Unit and Cost Centre.
- c) Objectives of Budgetary Control.
- d) Labour Variances.
- e) Margin of Safety.

Q4) Prepare a statement of Cost from the following information relating to Lucky traders, Gujarat for the year ended 31.3.2013. [16]

| | Rs. |
|---------------------------------|----------|
| Cost of direct material | 2,00,000 |
| Sales | 4,00,000 |
| Direct wages | 1,00,000 |
| Office Indirect materials | 5,000 |
| Cost of special patterns | 40,000 |
| Postage and telegrams | 2,000 |
| Factory rent and Insurance | 5,000 |
| Outstanding chargeable expenses | 2,000 |
| Carriage outward | 2,500 |
| Interest on loan | 2,150 |
| Printing and stationary | 500 |
| Factory Indirect wages | 3,000 |
| Selling on cost | 4,000 |
| Travelling salesman's salary | 4,000 |
| Factory indirect material | 1,000 |
| Royalties | 8,000 |
| General works overheads | 2,000 |
| Bad debts written off | 1,000 |
| | |

Also calculate the percentage of profits earned to sales.

Q5) a) Following are the particulars of Bajaj Limited:

[12]

Sales: Rs. 1,50,000/-

Marginal Cost :- Rs. 1,20,000/-

Gross Profit: - Rs. 60,000/-

Fixed Overheads:- Rs. 20,000/-

Net Profit :- Rs. 40,000/-

You are required to calculate:-

- i) P/V ratio
- ii) BEP (Sales)
- iii) Margin Of Safety.
- iv) Net Profit when sales are Rs. 4,00,000/-
- b) From the following data of 60% activity of Ganga Ltd, Prepare a flexible budget for the production at 80% & 100% activity.

Material Rs. 100 Per Unit

Labour Rs. 40 Per Unit

Expenses (Direct) Rs. 10 Per Unit

Factory expenses Rs. 40,000 (40% fixed)

Administrative expenses Rs. 30,000 (60% fixed)

At 60% activity Production is 60,000 Units at 80% activity production is 8000 units & at 100% capacity Production is 10,000 units. [12]

OR

b) Following is the data given for Pratap Enterprises. The standard quantity and standard price of raw materials required for 1 unit production is given below. [12]

| Material (Kg) | Standard Quantity (Rs.) | Standard Price |
|---------------|-------------------------|----------------|
| Material Y | 4 | 2 |

Actual production for an output of 500 units:

| Material (Kg) | Actual Quantity (Rs.) | Actual Price |
|---------------|-----------------------|--------------|
| Material Y | 1800 | 2.20 |