DE–7998

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DISTANCE EDUCATION

B.C.A. DEGREE EXAMINATION, MAY 2014.

ELECTRONIC DEVICES AND DIGITAL CIRCUITS

(2003 onwards)

Time : Three hours   Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

$(5 \times 20 = 100)$

1.   (a)   Explain the following codes :

    (i)   Gray code and

    (ii)   Excess 3 code.

    (b)   Convert the following :

    (i) $(5A)_{16} \rightarrow (\quad)_{10}$

    (ii) $(460)_8 \rightarrow (\quad)_{10}$

    (iii) $(950)_{10} \rightarrow (\quad)_{16}$

    (iv) $(11011)_2 \rightarrow (\quad)_{10}$

    (v) $(435)_8 \rightarrow (\quad)_2$.

2.   (a)   What is the full form of ASCII? What is the maximum number of characters, which can be represented by these codes? Discuss its area of application.

    (b)   Convert the decimals 48 & 54 to binary and perform $(54 - 48)_{10}$ using 2's complement binary arithmetic.

3. (a) Realize AND, OR and NOT logic using NAND gates alone.

    (b) State and prove the basic axioms of Boolean algebra with the help of logical circuits.

4. (a) Show that an AND gate with its inputs inverted is equivalent to NOR gate.

    (b) What is XOR gate? Give truth table for 2 input XOR gate.

5. (a) Write the truth table for a full-adder and develop its logic network.

    (b) Simplify the Boolean functions using the tabulation method.

$$F(A,B,C,D,E,F,G) = \sum (20,28,38,39,52,60,102,103,127)$$

6. (a) Design the circuit diagram of a full subtractor and explain.

    (b) How are the squares of a Karnaugh map labelled? How are the sum of product form of logical expressions are written in $\sum (N_1, N_2...)$ form? Explain.

7. (a) With a neat circuit diagram and truth tables explain the working of J.K. Flip flop.

    (b) Explain the working of Asynchronous counter.

8. (a) Explain the process of achieving breakdown in Zener diode.

    (b) Explain with suitable diagram about the structure and the operations of FET.

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DE–7999	**12**

DISTANCE EDUCATION

B.C.A. DEGREE EXAMINATION, MAY 2014.

PRINCIPLES OF INFORMATION TECHNOLOGY

(2003 onwards)

Time : Three hours　　　　　　　　Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

$(5 \times 20 = 100)$

1. (a) Explain about specialized software.　　　(10)

    (b) Write short notes on HTML.　　　(10)

2. Explain the various developments in computer technology.　　　(20)

3. What is specialised software? Explain with examples. (20)

4. (a) Write short notes on Modems.　　　(10)

    (b) What is meant by communication software? Explain with example.　　　(10)

5. Explain video conferencing and picture phones in detail.　　　(20)

6. (a) Explain file management systems.　　　(10)

    (b) Write short notes on Data Storage.　　　(10)

7. Explain in detail about organizing data in secondary storage.　　　(20)

8. Discuss in detail about five generations of programming languages.　　　(20)

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DISTANCE EDUCATION

B.C.A. DEGREE EXAMINATION, MAY 2014.

PRINCIPLES OF OPERATING SYSTEM

(2003 onwards)

Time : Three hours   Maximum : 100 marks

Answer any FIVE questions.

Each question carries 20 marks.

$(5 \times 20 = 100)$

1. (a) Discuss the operating system concepts.

    (b) Explain the structure of operating system.

2. (a) Write a note on mutual exclusion.

    (b) Explain two level scheduling.

3. (a) Discuss about deadlock detection and recovery.

    (b) Write a detailed note on interrupt handless.

4. (a) Explain any two page replacement algorithms.

    (b) Give a note on segmentation.

5. (a) Discuss in detail about protection mechanisms.

    (b) Write a note on directories.

6. (a) Explain memory management with linked lists.

    (b) Explain the famous security flaws.

7. (a) Discuss the performance of file system.

    (b) Write a note on system calls.

8. (a) Explain in detail about message passing.

    (b) Discuss multiprogramming without swapping.

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2 **DE–8000**

DE–8001

DISTANCE EDUCATION

B.C.A. DEGREE EXAMINATION, MAY 2014.

C PROGRAMMING

(2003 onwards)

Time : Three hours   Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

$(5 \times 20 = 100)$

1. (a) Explain the different kinds of if statements in C with an example coding. (10)

    (b) What is an array? Write a program to illustrate one dimensional array. (10)

2. (a) What are operators? Describe the different types of operators. (10)

    (b) Write a C program to create Pascal triangle. (10)

3. (a) Explain about procedures and recursion. (10)

    (b) What do you mean by text processing? Explain in detail. (10)

4. (a) Describe the category of functions. (10)

    (b) Discuss the concept of dynamic storage allocation. (10)

5. (a) How will you open and close a file? Give an example. (10)

    (b) Write short notes on :
        (i) Conditional substitution.
        (ii) Conditional Compilation. (10)

6. (a) Explain about tokens in C with examples. (10)

    (b) How will you read and write a character? Explain. (10)

7. (a) Discuss pointers in C. (10)

    (b) Write a C program to display book details using structure. (10)

8. (a) Give short notes on :

    (i) Random access

    (ii) Macro substitution. (10)

    (b) Write a C program to store and display student details using file. (10)

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DE–8002

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DISTANCE EDUCATION

B.C.A. DEGREE EXAMINATION, MAY 2014.
ACCOUNTING FUNDAMENTALS

(2003 onwards)

Time : Three hours   Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

$(5 \times 20 = 100)$

1. Define accounting. Distinguish between financial accounting and cost accounting.

2. Explain briefly the various accounting concepts and conventions.

3. What is meant by Trial Balance? Draw up a trial balance, using imaginary accounts and figures.

4. What do you mean by Ratio analysis? Discuss its importance and limitations.

5. Enter the following transactions in a Three column cash book and down the balance on 31.01.2013.

		Rs.
1.1.2013	Cash in hand	1,500
1.1.2013	Cash at bank	18,000
6.1.2013	Received a cheque from Kamal	10,000
6.1.2013	Allowed him discount	500
7.1.2013	Deposited Kamal's cheque into bank	4,000

10.1.2013	Bought goods by issuing cheque	2,000
13.1.2013	Paid Ram by cheque	13,000
13.1.2013	Discount received from him	400
18.1.2013	Drew from Bank for personal use	2,000
27.1.2013	Drew for office use	1,500
31.1.2013	Paid salary	1,000

6. Mr. Arun has maintained his books by Single entry method. From the following details, calculate profit for the year and a statement of affairs at the end of the year.

Rs. 1,000 (cost) furniture was sold for Rs. 5,000 on 1.1.2012. 10% depreciation is to be charged on furniture. Mr. Arun has drawn Rs. 1,000 p.m. Rs. 2,000 was invested by Mr. Arun in 2012 as further capital.

	1.1.2012	31.12.2012
	Rs.	Rs.
Stock	40,000	60,000
Debtors	30,000	40,000
Cash	2,000	1,000
Bank	10,000	5,000 (overdraft)
Creditors	15,000	25,000
Outstanding expenses	5,000	8,000
Furniture (cost)	3,000	2,000

Bank balance on 1.1.2012 is as per cash book but the bank overdraft on 31.12.2012 is as per bank statement. Rs. 2,000 cheques drawn in December 2012 have not been encashed within the year.

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DE–8002

7. From the following information, make out a statement of proprietor's fund with as many details as possible :

Current Ratio	2.5
Liquid Ratio	1.5
Proprietory Ratio	0.75
(Fixed assets/Proprietor's fund)	
Working capital	Rs. 60,000
Reserves and surplus	Rs. 40,000
Bank overdraft	Rs. 10,000

    There is no long-term loan or fictious assets.

8. From the following balances as at 31st December 2011 of a trader, prepare a Trading and Profit and loss account for the year 2011 and a Balance sheet as on that date :

	Rs.		Rs.
Salaries	5,500	Creditors	9,500
Rent	1,300	Sales	32,000
Cash	1,000	Capital	30,000
Debtors	40,000	Loans	10,000
Trade expenses	600		
Purchases	25,000		
Advances	2,500		
Bank balance	5,600		
	81,500		81,500

    Adjustments :

    (a) Closing stock Rs. 9,000

    (b) One month's salary is outstanding

    (c) One month's Rent has been paid in advance

    (d) Provide 5% for Doubtful debts.

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DE–8002

DE–8003

DISTANCE EDUCATION

B.C.A./B.C.A.(Lateral) DEGREE EXAMINATION, MAY 2014.

MICRO PROCESSORS AND PERSONAL COMPUTERS

(2003 onwards)

Time : Three hours   Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

$(5 \times 20 = 100)$

1. (a) Draw the microprocessor based system block diagram and explain it.   (10)

    (b) Discuss the following technologies.
         (i)   SSI   (3)
         (ii) LSI   (3)
         (iii) VLSI   (4)

2. (a) Draw the block diagram of 8085 microprocessor architecture and explain about the blocks.   (10)

    (b) Explain in detail the special purpose registers and general purpose registers in 8085.   (10)

3. (a) Explain in detail about data transfer group instructions with suitable examples.   (10)

    (b) Explain about various addressing modes in 8085.

    (10)

4. (a) Write an assembly language program to find one's complement of 96 H. (10)

   (b) Write an assembly language program for 8-bit multiplication and the product being of 16 bits. (10)

5. (a) Discuss in detail about semiconductor memories.(10)

   (b) Explain in detail about compact disks. (10)

6. (a) Briefly explain about memory mapped I/O scheme and I/O mapped I/O scheme. (10)

   (b) Describe the functions of DMA data transfer scheme. (10)

7. (a) Discuss in detail about intel 80486 motherboard.(10)

   (b) Explain briefly about VGA, VESA. (10)

8. (a) Explain the active preventive maintenance proceduces for PC maintenance. (10)

   (b) Discuss the data back up system. (10)

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2 **DE–8003**

DE–8004

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DISTANCE EDUCATION

B.C.A./B.C.A. (Lateral) DEGREE EXAMINATION, MAY 2014.

OFFICE AUTOMATION

(2003 onwards)

Time : Three hours   Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

$(5 \times 20 = 100)$

1. (a) Explain the purpose of title bar and status bar. (10)

    (b) What is a document? Write about opening, saving and naming a document.   (10)

2. (a) Explain formatting a text in word document.   (10)

    (b) Explain about inserting, moving and resizing pictures in word document.   (10)

3. (a) Explain any five functions in worksheet.   (10)

    (b) Explain spell checking in worksheet.   (10)

4. (a) How to improve the appearance of worksheet? Explain.   (10)

    (b) Explain formatting numbers and text in worksheet.   (10)

5. (a) How to create new database and tables in access?   (10)

    (b) Explain in detail query and forms in access.   (10)

6. (a) What is record? Explain adding, inserting and deleting records in a table. (10)

   (b) Explain about creating and printing reports. (10)

7. (a) Explain merging an access table with a word letter. (10)

   (b) How to create and print binders? Explain. (10)

8. Describe the features of outlook. (20)

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2   **DE–8004**

DE–8005

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DISTANCE EDUCATION

B.C.A./B.C.A. (Lateral) DEGREE EXAMINATION, MAY 2014.

SYSTEMS ANALYSIS AND DESIGN

(2003 onwards)

Time : Three hours   Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks

$(5 \times 20 = 100)$

1. (a) Explain the types of systems.

    (b) Discuss the system development life cycle.

2. (a) How to test the project feasibility ? Explain it.

    (b) Discuss about Interview and Questionnaire.

3. (a) Write a note on feasibility study.

    (b) Explain about the categories of cost.

4. (a) Discuss about the tools to structured analysis.

    (b) Write a note on decision table and decision tree.

5. (a) Explain the stages of system design.

    (b) How to capture data for input ? Discuss about input validation.

6. (a) Explain the methods of file organization.

    (b) Write a note on database design.

7. (a) What is quality assurance ? Explain the levels of assurance.

    (b) Explain about program flow chart.

8. (a) Discuss about training personnel and training methods.

    (b) Explain the conversion methods in detail.

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DE–8005

DE–8006

24

DISTANCE EDUCATION

B.C.A./B.C.A. (Lateral) DEGREE EXAMINATION, MAY 2014.

OBJECT ORIENTED PROGRAMMING AND C++

(2003 onwards)

Time : Three hours   Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

(5 × 20 = 100)

1. (a) Explain the basic concepts of object-oriented programming.

    (b) Discuss about the operators used in C++.

2. (a) What is a Constructor? Explain it with a sample program.

    (b) What is inline function? Write a C++ program to show the usage of inline function.

3. (a) Explain copy constructor in detail.

    (b) Discuss the purpose of new and delete operator.

4. (a) Write a detailed note on compile time polymorphism.

    (b) Explain the pitfalls of operator overloading.

5. (a) Discuss in detail about the types of inheritance.

    (b) Explain about virtual base class.

6. (a) Write a C++ program to print addition and multiplication tables.

    (b) Write a C++ program to check the given string is palindrome or not.

7. (a) Discuss about static data and member function.

    (b) Write a note on manipulator.

8. (a) Write a C++ program to reverse a string.

    (b) Give a note on abstract class.

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2 **DE–8006**

DE–8007

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DISTANCE EDUCATION

B.C.A./B.C.A.(Lateral) DEGREE EXAMINATION, MAY 2014.

COMPUTER GRAPHICS

(2003 Onwards)

Time : Three hours   Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

$(5 \times 20 = 100)$

1. (a) Describe the major components of a raster–scan CRT. (10)

   (b) Expatiate the graphics system software. (10)

2. (a) Describe the Bresenham's algorithm for circle generation. (10)

   (b) Explain, with an example, a seed fill algorithm. (10)

3. (a) Discuss the matrix functions for rotation, scaling and reflection. (10)

   (b) Scale the object with co–ordinates A (2,1), B (2,3), C (4, 2) and D (4, 4) with a scale factor of $S_x = S_y = 2$. (10)

4. (a) Explain the following :

   (i) Aspect ratio.

   (ii) Clipping and Shielding. (10)

   (b) Explain the Sutherland Cohan Line Clipping algorithm. (10)

5. (a) Explain how a point in 3D space can be represented.
                                                        (10)

   (b) Give a detailed note on coordinate transformation.
                                                        (10)

6. (a) Explain, in detail, the perspective view volume and parallel view volume.   (10)

   (b) Describe the various steps of Z–buffer algorithm.
                                                        (10)

7. (a) Discuss the "user's model" component of the user interface.   (10)

   (b) Depict the relationship between the various forms of feed back.   (10)

8. (a) Describe the various components of the drum plotter.   (10)

   (b) Find the equation of the line $y' = mx' + b$ in xy coordinates if the $x'\,y'$ coordinate system results from a $90°$ rotation of the xy coordinate system. (10)

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DE–8007

| **DE–8008** | | **31** |

B.C.A./B.C.A. (Lateral) DEGREE EXAMINATION, MAY 2014.

BUSINESS COMMUNICATION

(2003 onwards)

Time : Three hours　　　　　　　　Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

$(5 \times 20 = 100)$

1.　(a)　Explain the importance of communication.　(10)

　　(b)　Write a brief note on the essentials of effective downward communication.　(10)

2.　What are the essentials of a good business letter with suitable illustrations?　(20)

3.　(a)　Explain the characteristics of a good report.　(10)

　　(b)　Draft the minutes of the first meeting of the Board of Directors of a Joint Stock Company.　(10)

4.　(a)　What points should be kept in mind while drafting a speech?　(10)

　　(b)　Draft a speech proposing vote or thanks at the end of a seminar.　(10)

5.　Explain the form and content of an application letter. (20)

6.　(a)　List out the characteristics of a good essay.　(10)

　　(b)　What is an order form? What details are usually included in an order form?　(10)

7. (a) Explain the important points that should be kept in mind while drafting a complaint letter. (10)

   (b) Draft a suitable reply to a customer who has complained about the poor service of the computer supplied by you. (10)

8. (a) Prepare an application with your Bio-data for the post of a programmer in a nationalised bank. (10)

   (b) Place an order with your regular supplier for a few pieces of floppy for your computer centre. (10)

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DE–8008

DE–8009

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DISTANCE EDUCATION

B.C.A./B.C.A. (Lateral) DEGREE EXAMINATION, MAY 2014

WINDOWS AND VISUAL BASIC

(2003 onwards)

Time : Three hours   Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

$(5 \times 20 = 100)$

1. (a) Mention the required hardware and software for running windows.   (10)

    (b) Explain the format of window.   (10)

2. (a) Write short notes on clipboard.   (10)

    (b) Discuss about multimedia windows.   (10)

3. (a) What do you mean by PIF editor? Explain.   (10)

    (b) What is OLE? Explain in detail.   (10)

4. (a) Why we can use tool bar? Explain any one toolbar in VB.   (10)

    (b) Explain the following :

        (i)   Frames

        (ii) Checkbox.   (10)

5. (a) Write a VB program to create Fibanoci series.   (10)

    (b) How can you create menus? Explain with an example.   (10)

6. (a) Explain FOR.......NEXT loop with an example. (10)

 (b) Explain the following :

 (i) Project Explorer Window (5)

 (ii) Object Browser. (5)

7. (a) Explain WHILE......WEND with an example. (10)

 (b) Describe static and dynamic arrays in VB. (10)

8. (a) How can you create a control and remove a control from a control arrays? Explain. (10)

 (b) Explain the following :

 (i) Format functions (5)

 (ii) String functions. (5)

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2 **DE–8009**

DE–8010

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DISTANCE EDUCATION

B.C.A./B.C.A. (Lat). DEGREE EXAMINATION, MAY 2014

INTERNET AND JAVA PROGRAMMING

(2003 Onwards)

Time : Three hours   Maximum : 100 marks

Answer any FIVE questions.

Each questions carries equal marks.

$(5 \times 20 = 100)$

1. (a) Enumerate the various network topologies.   (10)

    (b) Describe the functions of the transport layer.   (10)

2. (a) Describe the various e-mail protocols.   (10)

    (b) Explain the various IP address classes.   (10)

3. (a) Describe the impact of Internet on society.   (10)

    (b) Write a note on :

         (i)   E-commerce and

         (ii) E-Governance.   (10)

4. (a) (i)   Why is Java known as platform-neutral
               language?   (5)

         (ii) Compare the Java statements "while" and
               "do-while".   (10)

    (b) Enumerate the various data types in Java.   (10)

5. (a) (i) Expatiate the structure of a typical Java program. (5)

 (ii) Explain, with an example, the switch statement. (5)

 (b) Write a Java program to find the factorial of a given number. (10)

6. (a) Explain, with an example, the method of declaring a class and creating an object. (10)

 (b) Discuss the various methods of a string class. (10)

7. (a) Discuss, with an example, the method overloading and overriding. (10)

 (b) What is inheritance? Describe the syntax of single and multilevel inheritance in Java? (10)

8. (a) Discuss : (10)

 (i) Telnet.

 (ii) URL and URI.

 (b) Explain static and final methods. Write an example for each type. (10)

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DE–8010

DE–8011

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DISTANCE EDUCATION

B.C.A./B.C.A (Lateral) DEGREE EXAMINATION, MAY 2014.

RDBMS

(2003 onwards)

Time : Three hours   Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

$(5 \times 20 = 100)$

1.   (a)   Write a detailed note on data base scheme.   (10)

     (b)   Give a note on

           (i)   Skilled Programmers

           (ii)   Casual users.   (10)

2.   (a)   Discuss the properties of a table as applied to database technology.   (10)

     (b)   Describe the following relational algebraic operations.

           (i)   Cross product

           (ii)   Project

           (iii) Selection.   (10)

3.   (a)   Describe the various types of databases.   (10)

     (b)   Discuss the oracle's background processes.

           (i)   System Monitor (SMON).   (5)

           (ii)   Process Monitor (PMON).   (5)

4. (a) Explain the various data types that are available in Oracle. (10)

   (b) What is a subquery? Explain with an example. (10)

5. (a) What is the purpose of GROUP BY, ORDER BY and HAVING clause in the SELECT statement? (10)

   (b) Illustrate the use of SUM( ), AVG( ), COUNT( ), MIN( ) and MAX( ) aggregate functions. (10)

6. (a) What are the two types of constraints? Give two examples of each. (10)

   (b) Write the Syntax of CREATE TABLE statement and explain it with an example. (10)

7. (a) Explain the SQL command RENAME with an example. (10)

   (b) Discuss, with complete syntax, the SQL statements DROP TABLE and TRUNCATE TABLE. (10)

8. (a) What is a view? What are its advantages? Explain the Syntax of creating views. (12)

   (b) Explain the query processing process with the help of a diagram. (8)

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DE–8011

DE–8012   **35**

DISTANCE EDUCATION

B.C.A./B.C.A. (Lateral) DEGREE EXAMINATION, MAY 2014.

MANAGEMENT PRINCIPLES AND TECHNIQUES

(2003 onwards)

Time : Three hours   Maximum : 100 marks

Answer any FIVE questions.

Each question carries equal marks.

$(5 \times 20 = 100)$

1. Describe the development of management principles. Discuss about the planning process in management system.   (20)

2. Explain the decision making process in management principles. Discuss about the leadership and control management system.   (20)

3. Describe the origin and development of operation research. State the different types of models used in O.R. Explain briefly the general methods for solving these O.R. models.   (20)

4. Using graphical method, find the maximum value of $z = 7x_1 + 10x_2$ (20)

    Subject to the constraints :

    $x_1 + x_2 \leq 30{,}000$

    $x_2 \leq 12{,}000$

    $x_1 \geq 6{,}000$

    $x_1 \geq x_2$

    $x_1, x_2 \geq 0.$

5. What is CPM? Explain the programme evaluations and review technique of PERT. What does each involve? How are they similar? Different? What particular advantages does PERT have over CPM? Why is this an advantages for the operation manager? (20)

6. A project has the following characteristics :

Activity	Most optimistic time	Most pessimistic time	Most likely time
1–2	1	5	1.5
2–3	1	3	2
2–4	1	5	3
3–5	3	5	4
4–5	2	4	3
4–6	3	7	5
5–7	4	6	5
6–7	6	8	7
7–8	2	6	4
7–9	5	8	6
8–10	1	3	2
9–10	3	7	5

Construct a PERT network find critical path and variance for each event. Find the project duration at 95% probability. (20)

7. Find the cost per period of individual replacement policy of an installation of 300 lighting bulbs given the following : (20)

(a) Cost of replacing individual bulb is Rs. 3

(b) The conditional probability of failure is given below :

Week no. : 0 1 2 3 4

Conditional prob. of failure : 0 1/10 1/3 2/3 1

2 **DE–8012**

8. A computer contains 10,000 resistors. When any one of the resistor fails, it is replaced. The cost of replacing a single resistor is Rs. 10 only. If all the resistors are replaced at the same time, the cost per resistor would be reduced to Rs. 3.50. The percent surviving by the end of month its as follows :

Month (t) :	0	1	2	3	4	5	6
% surviving by the end of month :	100	97	90	70	30	15	0

What is the optimum plan? (20)

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DE–8012

DE–8796

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DISTANCE EDUCATION

B.C.A./B.C.A. (Lateral) DEGREE EXAMINATION, MAY 2014.

LAB II — C++ AND MS-OFFICE

(2003 onwards)

Time : Three hours   Maximum : 100 marks

Examiner has to select and give ONE question to each candidate by lot system.

1. (a) Write and run a C++ program to create a class of objects e_1 and e_2. The contents of object e_1 is added to the object e_2 using the operator overloading technique.

    (b) Using MS-Word type a circular letter to be posted to PGDCA candidates to attend personal contact programme. Format the circular letter as it is and apply the suitable font type and font size.

--------------------------- Cut here ---------------------------

2. (a) Write a C++ program to read and display the students particulars such as reg no., name, age and sex using class and objects.

    (b) Create a worksheet in Excel :

Year	Sales	Expense
1990	20	9
____	____	____

    Draw the graph and mention the appropriate headings. Include another column profit with data values and create different types of graphs.

3. (a) Write a C++ program to find the square of a given number with different arguments using function overloading.

    (b) Create a table STUD with the following fields :
        REG NO., NAME, AGE, SEX, DEGREE, PERCENTAGE.

        (i) Add 6 records.

        (ii) Display the records for SEX = 'M' and degree = 'M.Sc'.

        (iii) Display the records for SEX = 'F' and percentage between 70 and 80.

        (iv) Sort the table in the descending order of PERCENTAGE.

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4. (a) Write a C++ program to display the given set of numbers in ascending/ descending order.

    (b) Using MS-Word type out the title page of your Office Automation book. Format the title page by the following features.

        (i) Centre each line.

        (ii) Draw border lines.

        (iii) Use color options.

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5. (a) Write a C++ program to read Salesman's name, products sold and find the commission based on the following conditions :

Sales	Commission
Below Rs.10,000	5%
10001 – 15000	10% of sales above 10000
15001 – 20000	15% of sales above 15000
Above 20000	20% of sales above 20000

        The output should contains name of the salesman, products sold and the commission amount.

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(b) Create a worksheet with the following columns :

REG NO, NAME, MATHS, ENGLISH, SCIENCE, TOTAL

(i) Fill the total column.

(ii) Filter the candidate whose Name = 'RAMU'.

(iii) Filter the candidate whose Science mark > 80.

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6. (a) Write and run a C++ program to find the sum and average of given set of marks.

(b) Create a table sales with the following fields :

NAME, SEX, SALECODE, SALE AMT.

(i) Add 6 records using Forms.

(ii) Display the records for SALE AMT > 10000 and SEX = 'M'

(iii) Display the records for SEX = 'F' and SALE AMT between 5000 and 10000.

(iv) Sort the table in descending order or SALE AMT.

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DISTANCE EDUCATION

B.C.A. DEGREE EXAMINATION, MAY 2014.

LAB I — C PROGRAMMING

(2003 onwards)

Time : Three hours　　　　　　　Maximum : 100 marks

Examiner has to select and give ONE question to each
candidate by Lot system.

1.　(a)　Write a C program to compute commission
earned by a salesman according to the scheme given
below :

Sales amount	Commission
Upto Rs.10,000	10%
Above 10,000 upto 50,000	15%
Above 50,000	20%

　(b)　Write a C program to read the records in an address
file.

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2.　(a)　Write a C program to print all ASCII characters.

　(b)　Write a C program to create an address file.

3. (a) A man is paid at the hourly rate of Rs.50 per hour for the first 50 hours worked. Thereafter overtime is paid at 1.5 times the hourly rate for the next 25 hours and 2 times the hourly rate for further hours worked per week. Calculate and print his gross weekly wage.

    (b) Write a C program to arrange the names in alphabetical order and assign roll number to each name.
------------------------ Cut here ------------------------

4. (a) Write a menu driven program to find the maximum and minimum in a given set of numbers.

    (b) Write a C program to accept and display your address using structure.
------------------------ Cut here ------------------------

5. (a) Write a C program to sort 10 numbers in ascending order.

    (b) Write a C program to create a text file and display the contents of that file.
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6. (a) Write a C program to accept and concatenate the given two strings. Also display the length of concatenated string.

    (b) Write a C program to accept and display your date of birth using structure.

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7. (a) Write a C program to input a basic pay and calculate gross pay and net pay.

   Income :

         HRA = 10% of basic pay.

         DA = 80% of basic pay.

   Gross pay = Basic pay + HRA +DA

   Deductions

         PF = 10% of basic pay.

         MA = Rs.200

   Deduction = PF + MA

   Net Pay = Gross pay – Deduction.

   (b) Write a C program to find the given word is palindrome or not.

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8. (a) Write a C Program to display the address and the contents of pointer variable.

   (b) Write a C program to find the product of two matrices of order m × n and n × p.

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DISTANCE EDUCATION

B.C.A./B.C.A (Lateral) DEGREE EXAMINATION, MAY 2014.

LAB III — JAVA AND VISUAL BASIC

(2003 onwards)

Time : Three hours   Maximum : 100 marks

ONE question should be given to each candidate by lot system.

Each sub division carries 50 marks.

1. (a) Write a VB program to compute and print either the sum of odd numbers or even numbers at the user's choice using label, text and option buttons.

    (b) Write a Java program to find simple and compound interests using class object.

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2. (a) Write a VB program to do temperature conversion C to F and F to C at user's choice using label, text and enter key.

    (b) Write a Java program to find the maximum and minimum of a given set of numbers.

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3. (a) Write a VB program that allows the user choice among four arithmetic operations of addition, subtraction, multiplication and division with two given numbers.

    (b) Write a Java program that receives the data such as age and name of person to check the eligibility for voting. Take the condition that if a person is more than 18 years old he is eligible to vote else display the number of years he has to wait for voting.

4. (a) Write a VB program to read principal, number of years and rate of interest though INPUT boxes. Compute and print the simple interest and compound interest labels.

   (b) There are 10 students in a class. Their names and marks in three different subjects are given. If a student takes more than 40 marks in each subject then he is declared PASS otherwise FAIL. Write a Java program to do the above.

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5. (a) Write a VB program to display the day of the given data.

   (b) Write a Java program to arrange the numbers in descending order.

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6. (a) Write a VB program to print twenty address labels in a two column format for the address.

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   (b) Write a Java program to find the area of circle.

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