Sophia Girls' College, Ajmer

(Autonomous)

Semester II – 2015- 16

End Semester Examination – II

Class : B.C.A – SEM II

Paper II : [BCA-202]:Computer Fundamentals – II

Time : 3 Hrs. **M.M: 50 Marks**

Section A [10 Marks]

Section A contains 10 questions (20 words each) and a candidate is required to attempt all 10 questions. Each question is of one mark.

I. Answer the following questions.

1. What is the cache memory?
2. What is the difference between static and dynamic RAM ?
3. What is ASCII?
4. Give full form of EBCDIC.
5. What is the main difference between system software and application software?
6. What are logic gates?
7. What is computer virus?
8. What is difference between internet and intranet?
9. Give one advantage of intranet.
10. What is the full form of URL and IP?

Section B [10 Marks]

Section B contains 7 questions (50 words each) and a candidate is required to attempt 5 questions, at least 1 from each unit. Each question is of 2 marks.

II. Answer the following questions

UNIT I

11. What is the role of primary and secondary memory in a computer?
12. Give difference between RAM and ROM.

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UNIT II

13. What are the universal gates?
14. Explain Excess-3 code using an example.

UNIT III

15. List the advantages of layering as seen in TCP/IP architecture.
16. Why we need network reference models?
17. What is IP address?

Section C [30 Marks]

Section C – Answer any three questions (400 words each), selecting one from each unit. Each question is of 10 marks.

III. Answer the following questions.

Unit I

18. What do you mean by memory hierarchy? Compare how data is stored in different types of memory hierarchy.

OR

What is a data warehouse? Illustrate and discuss methods of storing data in data warehouse.

Unit II

19. Explain different types of number system representation in computer.

OR

What do you mean by K Map? Explain using an example. Write rules to use K Map.

Unit III

20. Define Internet. Explain different services of Internet.

21. OR

22.
23. Explain each in detail:
24. a. TCP/IP Model
25. b. How the web works?

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Semester II – 2015- 16

End Semester Examination – II

Class : B.C.A. – SEM II

Paper V: [BCA-205]: Data Structure and Algorithm – II

Time : 3 Hrs. **M.M: 50 Marks**

Section A [10 Marks]

Section A contains 10 questions (20 words each) and a candidate is required to attempt all 10 questions. Each question is of one mark.

I. Answer the following questions.

1. Write the role of stack in function call.
2. Give the structure of Queue model.
3. What is recursive data structure?
4. What is meant by traversal?
5. Define complete binary tree.
6. Define AVL trees.
7. Define Graph.
8. What is minimum spanning tree?
9. Define undirected graph.
10. Define hash table.

Section B [10 Marks]

Section B contains 7 questions (50 words each) and a candidate is required to attempt 5 questions, at least 1 from each unit. Each question is of 2 marks.

II. Answer the following questions.

UNIT I

11. Write down the procedure for implementing various stack operations.
12. Give a procedure to convert an infix expression a+b*c+(d*e+f)*g to postfix notation.

UNIT II

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13. How is a binary tree is represented using an array? Give an example.
14. Explain in detail:
    a. Single rotation
    b. Double rotation of an AVL tree.

UNIT III

15. Give a diagrammatic representation of an adjacency. List representation of a graph.
16. What is divide and conquer strategy?
17. Give difference between DFS and BFS traversals in a graph.

Section C [30 Marks]

Section C – Answer any three questions (400 words each), selecting one from each unit. Each question is of 10 marks.

III. Answer the following questions.

UNIT I

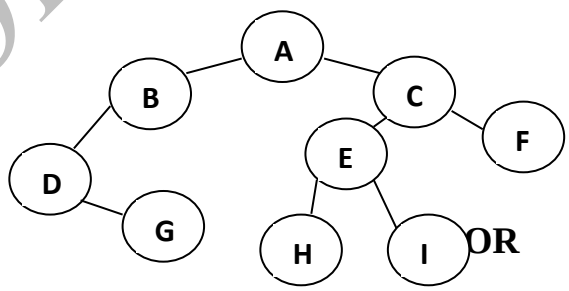
18. How to use stack in solving tower of Hanoi problem and write an algorithm to solve it?

OR

Write down the insertion and deletion algorithm for a circular queue.

UNIT II

19. Explain various kinds of traversals in a binary tree and illustrate the same with the following examples:



OR

Explai how to find a maximum element and minimum element in BST?

UNIT III

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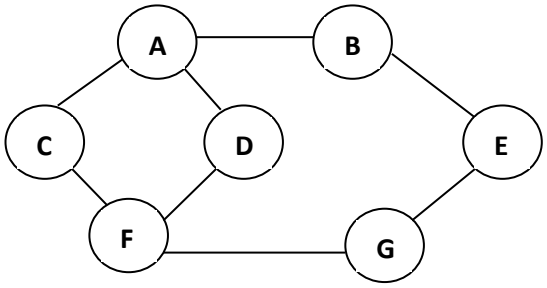
20. Determine the minimum spanning tree for the following graph using Priem's algorithm.



OR

Construct the hash table with the table size of 13 for the following values 39,48,61,74,87,100,113. Implement using open addressing with appropriate algorithms.

-The End-

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Semester II – 2015- 16

End Semester Examination – II

Class : B.C.A – SEM II

Paper I : [BCA-201]: Management and Accounting – I

Time : 2 Hrs. **M.M: 50 Marks**

Section A [10 Marks]

Section A contains 10 questions (20 words each) and a candidate is required to attempt all 10 questions. Each question is of one mark.

I. Answer the following questions.

1. Write any 2 objectives of accounting.
2. Explain accounting standards briefly.
3. Give an example of a transaction which increases one asset and decreases another.
4. What do you understand by 'outstanding expenses'?
5. If closing stock is given outside the Trial Balance, where will you show it in the Final Accounts?
6. Differentiate between Capital Expenditure and Revenue Expenditure.
7. Write the formula of Inventory(stock) Turnover Ratio.
8. A company has fixed expenses of Rs. 90,000 with sales at Rs 3,00,000 and a profit of Rs 60,000. Calculate margin of safety.
9. State two profitability ratios based on sales.
10. What do you mean by Budgeting?

Section B [10 Marks]

Section B contains 7 questions (50 words each) and a candidate is required to attempt 5 questions, at least 1 from each unit. Each question is of 2 marks.

II. Answer the following questions.

UNIT I

11. Define accounting. Write any two limitations of Accounting.
12. Classify different types of Accounts in brief.
13. What is ledger?

UNIT II

14. What is diminishing balance method of charging depreciation? Write its formula also.
15. What is Balance Sheet? What purpose does a balance sheet serve?

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UNIT III

16. Give two differences between fixed and flexible budget.
17. If quick ratio is 1.5; current Assets are of Rs 1,00,000 and current liabilities are of RS 40,000. Calculate value of inventory.

Section C [30 Marks]

Section C – Answer any three questions (400 words each), selecting one from each unit. Each question is of 10 marks.

III. Answer the following questions.

UNIT I

18. What is Trial Balance? What are errors which do not affect the agreement of Trial Balance?

OR

Record the following transactions in the journal of Mahesh and prepare cash a/c, bank a/c, sales and purchase a/c.

2014		Rs.
July 1	Started business with cash	90,000
July 2	Goods purchased for cash	30,000
July 4	Sold goods to Ramlal	4,000
July 5	Paid into bank	50,000
July 12	Withdrew from bank for personal use	2,000
July 15	Paid rent	800
July 20	Ramlal became insovolent and a payment was received @ 25 paise in the rupee	
July 22	Sold goods to Mahesh	8,000
July 31	Paid salary to staff	5000
July 31	Goods returned by Mahesh	400
July 31	Cash received from Mahesh in full settlement (discount allowed Rs 80.	7520

Prepare trading and profit and loss account and balance sheet after taking into account the following adjustments:

i. Stock on 31st March 2014 is of Rs 14,000
ii. Outstanding liabilities – for wages Rs 1200 and for salaries Rs 2800.
iii. Depreciation @ 5% p.a. is to be provided on plant and machinery, as well as furniture and building.
iv. Write off bad debts Rs 1500.

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v. Insurance premium paid in advance Rs 400
vi. Accrued commission Rs 500

OR

Write short notes on the following:

i. Provision for discount on debtors
ii. Interest in capital
iii. Loss by accident
iv. Bad debts

19. The following figures are presented before you:

Year	Sales	Profit / Loss
2009-10	Rs 1,00,000	Rs 10,000(loss)
2010-11	Rs4,00,000	Rs 50,000(profit)

Calculate

i. P/V ratio
ii. Break even point
iii. Fixed cost
iv. The number of units to earn a profit of Rs. 1,00,000 if selling price per unit is Rs 100.

OR

Budgeting is an essential tool for managers." Discuss.
Explain and illustrate the ratios used for testing the liquidity position of the firm.

-The End-

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Semester II – 2015- 16

End Semester Examination – II

Class : B.CA. – SEM II

Paper VI : [BCA-206]:Multimedia Basics – II

Time : 3 Hrs. **M.M: 50 Marks**

Section A [10 Marks]

Section A contains 10 questions (20 words each) and a candidate is required to attempt all 10 questions. Each question is of one mark.

I. Answer the following questions

1. Define multimedia.
2. Write applications of multimedia.
3. Give full form of MPEG, JPEG, TIFF and BMP.
4. Define copyright law.
5. What is MIDI?
6. Define P frame.
7. What is animation?
8. Define sampling rate.
9. What is AVI?
10. What is sound and audio?

Section B [10 Marks]

Section B contains 7 questions (50 words each) and a candidate is required to attempt 5 questions, at least 1 from each unit. Each question is of 2 marks.

II. Answer the following questions

UNIT I

11. Discuss various types of images.
12. What are the different techniques used for image compression?

UNIT II

13. Compare JPEG and MPEG

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14. Explain following:
    a. Patent Law
    b. Trademark Law

UNIT III

15. What is flash tweening?
16. Write down the steps to change the background color and stage size.
17. What is the use of mask in Flash 5?

Section C [30 Marks]

Section C – Answer any three questions (400 words each), selecting one from each unit. Each question is of 10 marks.

III. Answer the following questions.

UNIT I

18. What is speech and speech analysis? Also explain speech recognization with example.

OR

Write short note on following:
    a. Audio compression.
    b. Lossless compression.

UNIT II

19. Explain DVI-Real time compression.

OR

What is the role of multimedia in entertainment?

UNIT III

20. How to create a logo using pen tool?

OR

Explain different layers and its types in flash.

-The End-

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Semester II – 2015- 16

End Semester Examination – II

Class : B.C.A. – SEM II

Paper III : [BCA-203]: P.C. Software – I

Time : 3 Hrs. **M.M: 50 Marks**

Section A [10 Marks]

Section A contains 10 questions (20 words each) and a candidate is required to attempt all 10 questions. Each question is of one mark.

I. Answer the following questions.

1. What is Microsoft Excel?
2. How can you add a new excel worksheet?
3. Write the name of any one report format that are available in excel?
4. Name some of the file extensions for MS Access.
5. Explain what do you mean by queries?
6. What is the size limitation for an Access Database?
7. What is IF function in excel?
8. How to manage e-mail using MS Outlook?
9. List the various views of Calendar.
10. What is outlook today?

Section B [10 Marks]

Section B contains 7 questions (50 words each) and a candidate is required to attempt 5 questions, at least 1 from each unit. Each question is of 2 marks.

II. Answer the following questions.

11. What is the benefit of using formula in excel sheet?
12. What does the AND function do in excel?

UNIT II

13. What is a record?
14. Explain how to create table in MS Access.

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UNIT III

15. Explain how you can manage spam mails in MS Outlook.

16. Mention how you can change mail format in MS Outlook.

17. Explain how to purge deleted messages automatically in MS Outlook.

Section C [30 Marks]

Section C – Answer any three questions (400 words each), selecting one from each unit. Each question is of 10 marks.

III. Answer the following questions

UNIT I

18. What is a template in MS-Excel? How is it different from Auto Templates? Explain the use of Auto Templates.

OR

Explain the use of creating chart controls in MS Excel. Also with the steps to create Charts.

UNIT II

19. What is the use of MS Access? Explain data types in detail.

OR

Explain types of queries in detail.

UNIT III

20. How can a new email account be created? Write steps.

OR

How to use calendar in MS outlook? Write steps.

-The End-

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Semester II – 2015- 16

End Semester Examination – II

Class : B.C.A– SEM II

Paper IV : [BCA-204]: Fundamentals of C Programming – I

Time : 3 Hrs. **M.M: 70 Marks**

Instruction : In case of doubt, the *English* version of the paper stands *correct.*

Section A [10 Marks]

Section A contains 10 questions (20 words each) and a candidate is required to attempt all 10 questions. Each question is of one mark.

I. Define the following:

1. Function
2. Structure
3. Pointer
4. Function Argument
5. Character Arrays
6. Typedef
7. File Handling
8. Address
9. User Defined Functions
10. Call by Reference.

Section B [10 Marks]

Section B contains 7 questions (50 words each) and a candidate is required to attempt 5 questions, at least 1 from each unit. Each question is of 2 marks.

II. Answer the following questions

UNIT I

11. What is function definition and how function calling is done?
12. Write a C program to print table of a number input by user using recursion.

UNIT II

13. Explain basic string handling functions defined in C language.

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14. How pointer to function is defined? Explain using example.
15. How to return multiple data values from function in C language, explain using examples.

UNIT III

16. Explain in which mode file can be opened in C language.
17. Write a program in C to demonstrate array of structures.

Section C [30 Marks]

Section C – Answer any three questions (400 words each), selecting one from each unit. Each question is of 10 marks.

III. Answer the following questions.

UNIT I

18. What is function parameter? Give difference between call by value and call by reference.

OR

What are storage classes? Explain in detail different types of storage classes and their scope.

UNIT II

19. What is string handling? Write a C program to concatenate two strings.

OR

What is a pointer? Explain addressing pattern of 2-dimensional array.

UNIT III

20. What is the difference between structure and union? Write a program in C to demonstrate pointer to a structure.

OR

Explain using example file handling as opening, closing, writing and appending a file.

-The End-

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Sophia Girls' College, Ajmer

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Semester II – 2016- 17

End Semester Examination

Class : B.C.A

Paper I : [BCA-201]: Management and Accounting – I

Time : 2 ½ Hrs. **M.M: 50 Marks**

Section A [10 Marks]

Section A contains 10 questions (20 words each) and a candidate is required to attempt all 10 questions. Each question is of one mark.

I. Answer the following questions

1. What is meant by Accounting?
2. Mention two advantages of Accounting.
3. What is a ledger?
4. What are prepaid expenses?
5. Give two examples of revenue expenditure.
6. Goods worth Rs 1,00,000 were burnt by fire and a claim of Rs 60,000 has been accepted by the Insurance Company. How will it be recorded in final accounts?
7. Define financial statement analysis.
8. What is meant by ratio analysis?
9. Explain the meaning of marginal cost.
10. What do you understand by BEP?

Section B [10Marks]

Section B contains 6 questions (50 words each) and a candidate is required to attempt 3 questions, at least 1 from each unit. The first two UNITS are of 3 marks each and the last UNIT is of 4 marks.

II. Answer the following questions

UNIT I **(3 Marks)**

11. Distinguish between debtors and creditors.

OR

Distinguish between Trade Discount and Cash Discount.

UNIT II **(3 Marks)**

12. Is Cash book a journal or a ledger?

OR

What is suspense account? When is it opened?

UNIT III **(4 Marks)**

13. Explain the difference between fixed assets and current assets.

OR

If the cost of 1000 units is Rs 72,000 and the cost of 2000 units is Rs 84,000, then how can this semi variable cost can be segregated in fixed and variable costs.

Section C [30 Marks]

Section C – contains 6 questions. Answer any three questions (400 words each), selecting one from each unit. Each question is of 10 marks.

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III. Answer the following questions.

UNIT I

14. Differentiate between book-keeping and accounting.

OR

Prepare a trial balance from the following balances as on 31st March, 2016:

Particulars	Rs		Particulars	Rs
Stock on 1-4-2015	28,800		Returns inward	7500
Purchases	82,000		Returns outwards	5600
Sales	1,60,000			
Salaries	6,400		Carriage inwards	1640
Wages	16,160		Carriage outwards	3200
Repair charges	500		Furniture	12,000
Commission received	800		Motor car	80,000
Sundry debtors	24,200		Cash in hand	4,700
Sundry creditors	7,300		Bank overdraft	25,400
Capital	90,000		Investments	20,000
Drawings	4400		Interest on investments	2400

UNIT II

15. From the following trial balance of Shre Ved Vyas, Prepare a trading and Profit and loss account for the year ended 31st December 2015 and balance sheet as on that date.

Particulars	Dr Rs	Cr Rs
Purchases and sales	2,75,000	5,20,200
Returns inwards	15,000	
Returns outwards		9,000
Carriage	12,400	
Wages and salaries	58,600	
Trade Expenses	2200	
Rent		13000
Insurance	2000	
Audit fees	1200	
Debtors and creditors	1,10,000	62,100
B/R and B/P	3,300	2,200
Printing and advertising	5,500	
Commission		1000
Opening stock	36,000	
Cash in hand	12,800	
Cash at bank	26,800	
Bank loan		20,000
Interest on loan	1500	
Capital		2,50,000
Drawings	15,000	
Fixed Assets	3,00,000	
	8,77,300	8,77,300

Adjustments

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a. Stock at the end Rs 60,000
b. Depreciate fixed assets by 10 %
c. Commission earned but not received amount Rs 400
d. Rent received in advance Rs 1000
e. Allow 8% interest on capital and charge Rs 900 as interest on drawings

OR

Explain the following with examples:
a. Outstanding expenses
b. Prepaid expenses

UNIT III

16. Rex. Ltd. furnishes the following information for the year 2016:

Particulars	Jan to June	July to Dec
Sales	13,50,000	15,00,000
Total cost	12,00,000	12,90,000

Assuming that fixed expenses are incurred informally in both the periods, calculate the following for the year 2016:
a. Fixed expenses
b. Break even sales
c. Margin of safety
d. Sales to earn a profit of 10% on sales

OR

What is flexible budget? How is it prepared?

The End

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Semester II – 2016- 17

End Semester Examination

Class : B.C.A

Paper IV : [BCA-204]: Fundamentals of 'C' Programming

Time : 2 ½ Hrs. **M.M: 50 Marks**

Section A [10 Marks]

Section A contains 10 questions (20 words each) and a candidate is required to attempt all 10 questions. Each question is of one mark.

I. Define the following:

1. Library function.
2. Function argument.
3. Recursion.
4. Global variable.
5. String
6. Scale factor
7. Character pointer
8. Bit field
9. Text file
10. Nested structure.

Section B [10Marks]

Section B contains 6 questions (50 words each) and a candidate is required to attempt 3 questions, at least 1 from each unit. The first two UNITS are of 3 marks each and the last UNIT is of 4 marks.

II. Answer the following questions

UNIT I (3 Marks)

11. What is function prototype? Explain with example.

OR

Write a c program. Calculate factorial value using recurssive function.

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UNIT II **(3 Marks)**

12. What are the advantages of using pointer?

OR

Write a C program to read and display array using pointer.

UNIT III **(4 Marks)**

13. Differentiate between structure and union.

OR

How to declare and initialize structure? Explain with example.

Section C [30 Marks]

Section C – contains 6 questions. Answer any three questions (400 words each), selecting one from each unit. Each question is of 10 marks.

III. Answer the following questions.

UNIT I

14. What is storage class? Explain various storage classes and their scope with example.

OR

Explain the categories of user defined functions with example.

UNIT II

15. Write short notes on:
    a. Pointer to function
    b. Address Arithmetic

OR

Explain the various types of string Handling Functions in C language. Explain each function with example.

UNIT III

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16. Explain the concept of how to pass structure to the function. Explain with example.

OR

Explain the following functions with example.

a. Fopen
b. Fclose
c. Feof
d. Fprintf()
e. Fscanf()

The End

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Semester III – 2017- 18

End Semester Examination

Class : B.C.A

Paper I : [BCA-301]: Data Structure and Algorithm -II

Time : 2 ½ Hrs. **M.M: 50 Marks**

Section A [10 Marks]

Section A contains 10 questions (20 words each) and a candidate is required to attempt all 10 questions. Each question is of one mark.

I. Answer the following questions

1. What do you mean by stack overflow and stack underflow?
2. Distinguish between prefix and postfix expressions.
3. Explain the terms front and rear with relevance to queue. Which operations are to be performed at these ends?
4. Explain the concept of binary trees.
5. Give the properties of binary trees.
6. Define the leaf and degree of a Node term in tree.
7. What do you mean by the vertices of a graph?
8. Define the terms Degree and Cycle applicable to a graph.
9. What do you know about a weighted graph? Explain.
10. Explain implementation procedure of a stack.

Section B [10Marks]

Section B contains 6 questions (50 words each) and a candidate is required to attempt 3 questions, at least 1 from each unit. The first two UNITS are of 3 marks each and the last UNIT is of 4 marks.

II. Answer the following questions

UNIT I (3 Marks)

11. Explain the terms infix expression, postfix expression and polish notation.

OR

Explain Circular Queue.

UNIT II (3 Marks)

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12.Explain the various types of binary trees.

OR

What types of fundamental operations are performed on binary tree?

UNIT III (4 Marks)

13.Explain traversing of a graph.

OR

Distinguish between the directed and undirected graphs.

Section C [30 Marks]

Section C – contains 6 questions. Answer any three questions (400 words each), selecting one from each unit. Each question is of 10 marks.

III. Answer the following questions.

UNIT I

14.Translate the following infix expressions to its equivalent prefix expression:

a. (x+y-z)/(h+k)-z
b. (j+k)*(c/d)

OR

Explain Queue. Give the algo of insertion in queue.

UNIT II

15.Explain all the basic terms used in tree with a suitable diagram.

OR

Write an algorithm to locate the position of a new node to be inserted into a binary search tree.

UNIT III

16.Consider the following graph, prepare an Adjacency Matrix and Incidence Matrix.

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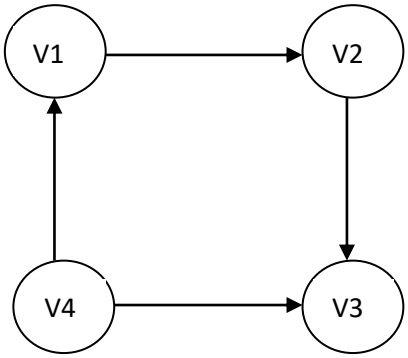

OR

Write an algorithm for Depth First Search (DFS) and Breadth First Search (BFS) in graph application.

The End

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Semester II – 2016- 17

End Semester Examination

Class : B.C.A

Paper II : [BCA-202]:Computer Fundamentals

Time : 2 ½ Hrs. **M.M: 50 Marks**

Section A [10 Marks]

Section A contains 10 questions (20 words each) and a candidate is required to attempt all 10 questions. Each question is of one mark.

I. Answer the following questions

1. What is magnetic tape?
2. CD-ROM stands for…..
3. What do you understand by hard disk?
4. EBCDIC can code up to how many different characters?
5. Explain gray code.
6. Name different methods of storing data in a data warehouse.
7. What is BCD code?
8. Explain different uses of intranet.
9. What is web site?
10. Give full form of WWW, IP and URL?

Section B [10Marks]

Section B contains 6 questions (50 words each) and a candidate is required to attempt 3 questions, at least 1 from each unit. The first two UNITS are of 3 marks each and the last UNIT is of 4 marks.

II. Answer the following questions

UNIT I (3 Marks)

11. What is the need of secondary storage devices?

OR

What is ROM? Why it is called non volatile memory?

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UNIT II **(3 Marks)**

12. Explain k-map using example.

OR

What is data warehouse? Explain different components of data warehouse.

UNIT III **(4 Marks)**

13. Give difference between application software and system software.

OR

What are Viruses? Explain any 2 type of virus.

Section C [30 Marks]

Section C – contains 6 questions. Answer any three questions (400 words each), selecting one from each unit. Each question is of 10 marks.

III. Answer the following questions.

UNIT I

14. Explain the following:-
    (a) Flash Memory
    (b) Cache Memory
    (c) Static RAM & Dynamic RAM
    (d) Memory Hierarchy

OR

Explain different types of secondary storage devices.

UNIT II

15. Perform the following.
    (a) 10110010 + 00101010
    (b) 1011 x 11
    (c) 101101 – 10110
    (d) 10000111 ÷ 110

OR

What do you understand by logic gates? Explain different types of logic gates.

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UNIT III

16. Explain TCP/IP with suitable diagram in detail.

OR

Explain the following:

(a) e-mail

(b) UDP

(c) Intranet

The End

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Semester II – 2016- 17

End Semester Examination

Class : B.C.A

Paper VI : [BCA-206]: Multimedia Basics – I

Time : 2 ½ Hrs. **M.M: 50 Marks**

Section A [10 Marks]

Section A contains 10 questions (20 words each) and a candidate is required to attempt all 10 questions. Each question is of one mark.

I. Answer the following.

1. What do you mean by audio synthesis?
2. What is decibel system?
3. What is transducer?
4. Give the full form of GIF and PNG.
5. What is morphing?
6. What is MPEG?
7. What is stage in flash?
8. What is tweening?
9. What is the use of mask layer in flash?
10. What is the use of Eyedropper tool in flash?

Section B [10Marks]

Section B contains 6 questions (50 words each) and a candidate is required to attempt 3 questions, at least 1 from each unit. The first two UNITS are of 3 marks each and the last UNIT is of 4 marks.

II. Answer the following questions

UNIT I (3 Marks)

11. What are vector images? Give advantages of vector images.

OR

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Explain two common audio file formats.

UNIT II (3 Marks)

12. What are the advantages and disadvantages of video compression?

OR

What is digital video interface? Explain with example.

UNIT III (4 Marks)

13. How to create a logo using pen tool?

OR

How to add an effect to the movie clip?

Section C [30 Marks]

Section C – contains 6 questions. Answer any three questions (400 words each), selecting one from each unit. Each question is of 10 marks.

III. Answer the following questions.

UNIT I

14. What are the various components of multimedia? Explain.

OR

What is multimedia? Explain with the help of some examples. What are the different advantages of Multimedia?

UNIT II

15. What is JPEG? Differentiate between lossy JPEG compression and lossless JPEG compression.

OR

Explain the patent and copyright law of multimedia.

UNIT III

16. What are frames in flash? What is key frame? How will you create them?

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OR

How to create a motion tween in flash? Write steps.

The End

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Semester II – 2016- 17

End Semester Examination

Class : B.C.A

Paper III : [BCA-203]:P.C. Software – I

Time : 2 ½ Hrs. **M.M: 50 Marks**

Section A [10 Marks]

Section A contains 10 questions (20 words each) and a candidate is required to attempt all 10 questions. Each question is of one mark.

I. Answer the following questions

1. What is a cell in MS Excel?
2. What is Auto Sum Function?
3. What is formula?
4. How to enter Date and Time in a worksheet?
5. What is Database?
6. What is select query in MS Access?
7. Write the steps to importing data in database.
8. What do you understand by carbon copy (CC) in e-mail?
9. Write the four names of Email services providers (Domain name).
10. Write the process to printing Email Message.

Section B [10Marks]

Section B contains 6 questions (50 words each) and a candidate is required to attempt 3 questions, at least 1 from each unit. The first two UNITS are of 3 marks each and the last UNIT is of 4 marks.

II. Answer the following questions

UNIT I (3 Marks)

11. What are relative and absolute cell references in MS Excel? Explain

OR

What is function? Discuss any two mathematical functions of M.S. Excel.

UNIT II (3 Marks)

12. Write the ways for linking tables in database?

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OR

What is primary key?

UNIT III (4 Marks)

13. Write the process to adding a holiday in a calendar?

OR

How to delete old message from Outlook in a particular time period?

Section C [30 Marks]

Section C – contains 6 questions. Answer any three questions (400 words each), selecting one from each unit. Each question is of 10 marks.

III. Answer the following questions.

UNIT I

14. What is difference between Data Sorting and Data Filtering? Explain with examples.

OR

What is Pivot Table? Discuss its working process and its uses?

UNIT II

15. What is Report? How do we generate a report and format it? Explain with suitable example.

OR

What is Form? Explain the different ways to create a form.

UNIT III

16. What do you mean by contacts view? Explain the procedure to create a contact in Outlook?

OR

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What is MS Outlook ? Describe the process of adding a new account for it? Also writes its uses.

The End

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Semester II – 2017- 18

End Semester Examination

Class : B.C.A

Paper I : [201]: Computer Fundamentals

Time : 2 ½ Hrs. **M.M: 50 Marks**

Section A [10 Marks]

Section A contains 10 questions (20 words each) and a candidate is required to attempt all 10 questions. Each question is of one mark.

I. Answer the following questions

1. What is magnetic tape?
2. What is flash memory?
3. DVD stands for?
4. What is ASCII code?
5. Explain excess-3 code.
6. What is SOP and POS?
7. What are special gates?
8. Name any two types of virus.
9. What is www?
10. What is electronic mail?

Section B [10Marks]

Section B contains 6 questions (50 words each) and a candidate is required to attempt 3 questions, at least 1 from each unit. The first two UNITS are of 3 marks each and the last UNIT is of 4 marks.

II. Answer the following questions

UNIT I (3 Marks)

11. Explain memory hierarchy and its classification.

OR

Explain and differentiate volatile and non volatile memory.

UNIT II (3 Marks)

12. Explain basic gates.

OR

Explain methods of storing data in a data warehouse.

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UNIT III (4 Marks)

13. Explain software and its types.

OR

Explain TCP/IP and UDP.

Section C [30 Marks]

Section C – contains 6 questions. Answer any three questions (400 words each), selecting one from each unit. Each question is of 10 marks.

III. Answer the following questions.

UNIT I

14. Explain any three secondary storage devices in detail.

OR

Explain the following:

a. RAM
b. Auxiliary storage
c. Hard disk
d. Cache memory

UNIT II

15. Explain k-map and its simplification using a three variable expression.

OR

Perform the following:

a. $(2A)_{16} = (?)_2$
b. $(345)_{10} = (?)_8$
c. 111101 + 100000
d. 1010 x 101

UNIT III

16. Explain virus. Classify them. Explain ways to prevent and catch computer virus.

OR

Explain intranet, uses, advantages and disadvantages.

THE END

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Semester II – 2017- 18

End Semester Examination

Class : B.C.A

Paper II : [BCA-202]: Management and Accounting

Time : 2 ½ Hrs. **M.M: 50 Marks**

Section A [10 Marks]

Section A contains 10 questions (20 words each) and a candidate is required to attempt all 10 questions. Each question is of one mark.

I. Answer the following questions.

1. Give any two objects of accounting.
2. Define trial balance.
3. What are capital and drawing?
4. What do you mean by final accounts?
5. What do you understand by outstanding expense?
6. What is an automatic accounting process?
7. What are the main objectives of analysis of financial statement?
8. Write two objectives of ratio analysis.
9. Define break even analysis.
10. What is the difference between budget and budgeting?

Section B [10Marks]

Section B contains 6 questions (50 words each) and a candidate is required to attempt 3 questions, at least 1 from each unit. The first two UNITS are of 3 marks each and the last UNIT is of 4 marks.

II. Answer the following questions

UNIT I (3 Marks)

11. Write the rules of journal entries.

OR

What do you mean by a Three Column Cash Book?

UNIT II (3 Marks)

12. Distinguish between profit and Loss account and Balance Sheet.

OR

What do you mean by unearned income? What journal entry is made for such income?

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UNIT III (4 Marks)

13. Calculate break-even point if selling price per unit is Rs 20; variable cost per unit Rs 15 and Fixed cost is Rs 60.000.

OR

Write the difference between fixed and flexible budget.

Section C [30 Marks]

Section C – contains 6 questions. Answer any three questions (400 words each), selecting one from each unit. Each question is of 10 marks.

III. Answer the following questions.

UNIT I

14. What do you mean by accounting concepts and conventions? Explain briefly the important accounting concepts.

OR

Journalize the following transactions in the books of M/s Manohar & Sons :

2018		Rs
Jan 1	Business started with Cash	50,000
	Building	40,000
Jan 2	Cash deposited in Bank	30,000
Jan 3	Goods purchased for cash	1,200
Jan 4	Purchased good from Ram	1,500
Jan 6	Goods sold to Laxman	1,000
Jan 7	Furniture purchase for cash	800
Jan 10	Charge interest on capital	2,500
Jan 11	Good returned from Laxman	200
Jan 12	Goods returned to Ram	500
Jan 14	Withdrew from bank for private use	6,000
Jan 16	Give in charity : Cash	100
	Goods	200
Jan 19	Salaries paid by cheque	4,000
Jan 21	Goods sold to Sachin on 10% trade discount and 8% cash discount	1,000
Jan 23	Laxman becomes insolvent and could pay only 75 paise in a rupee	
Jan 26	Proprietor took goods for his personal use	2,000
Jan 27	Insured goods worth Rs 5,000 destroyed by fire and the insurance company has accepted the claim.	4,000
Jan 29	Postage Rs 200 and rent Rs 1000 paid	

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Jan 31	Received Rs 4,000 from insurance company	

UNIT II

15. What do you mean by capital and revenue expenditure? Distinguish between capital and revenue expenditure.

OR

From the following Trial Balance and other information of Ravi Kumar & Sons, you are required to prepare Trading Account and Profit & Loss account for the year ended 31st March 2017 and a balance sheet as on date:

Name of accounts	Debit Rs	Credit Rs
Drawing and capital	5,000	1,00,000
Purchase and sales	68,000	1,20,000
Debtors and creditors	40,000	30,000
Opening stock	30,000	
Returned inwards	3,000	
Bank overdraft		12,000
Salaries	17,000	
Heating and lighting office	2,000	
Leasehold property	80,000	
Commission		2,000
Travelling expenses	3,000	
Printing and stationary	1,000	
Furniture	9,000	
Provision for doubtful debts		4,000
Wages and freight	10,000	
Apprentice premium		5,000
Cash	5,000	
	2,73,000	2,73,000

Adjustments :

a. Closing stock Rs 15,000
b. Rs 1,000 for wages still payable
c. Chargeable depreciation at 5% on leasehold property and at 10% on furniture.
d. The provision for doubtful debts is to be maintained at 6% on debtors.
e. Rs 2,000 for salaries relates to next year.

UNIT III

16. What do you mean by budgeting? Discuss its objects and advantages.

OR

From the following information, prepare a Balance Sheet of Ashutosh Ltd.

a. Current ratio 2.5
b. Liquid ratio 1.5
c. Proprietary ratio 0.75
d. Working capital Rs 60,000

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e. Reserves and surplus Rs 40,000
f. Bank overdraft Rs 10,000

There is no long term loan or fictitious assets.

The End

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Semester II – 2017- 18

End Semester Examination

Class : BCA

Paper III : [203]: Data Structure and Algorithm

Time : 2 ½ Hrs. **M.M: 50 Marks**

Section A [10 Marks]

Section A contains 10 questions (20 words each) and a candidate is required to attempt all 10 questions. Each question is of one mark.

I. Answer the following questions

1. Define data structure.
2. What is primitive data type?
3. What is an array?
4. What is sorting?
5. Why bubble sort is named such?
6. What is a heap?
7. What is linked list?
8. What is a doubly linked list?
9. How are arrays different from linked list?
10. Name pointers used in doubly linked list.

Section B [10Marks]

Section B contains 6 questions (50 words each) and a candidate is required to attempt 3 questions, at least 1 from each unit. The first two UNITS are of 3 marks each and the last UNIT is of 4 marks.

II. Answer the following questions

UNIT I (3 Marks)

11. Explain the concept of single and two dimensional arrays.

OR

Explain primitive and composite data types.

UNIT II (3 Marks)

12. Explain insertion and deletion in an array.

OR

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Explain insertion sort with help of an example.

UNIT III (4 Marks)

13. How are linked lists represented in memory? Write an algorithm to traverse a linked list.

OR

Explain with an algorithm how do you traverse a doubly linked list?

Section C [30 Marks]

Section C – contains 6 questions. Answer any three questions (400 words each), selecting one from each unit. Each question is of 10 marks.

III. Answer the following questions.

UNIT I

14. Explain array storage strategy of multi dimensional array with help of an example.

OR

Explain index formula for single and multidimensional array with help of suitable example.

UNIT II

15. Explain quick sort with help of following:
90 10 80 50 60 20 30 40

OR

Explain linear and binary search on arrays.

UNIT III

16. Explain searching, insertion and deletion in a linked list.

OR

Explain insertion and deletion in a doubly linked list.

THE END

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Semester II – 2017- 18

End Semester Examination

Class: BCA

Paper IV: [BCA-204]: P.C. Software

Time: 2 ½ Hrs. **M.M: 50 Marks**

Section A [10 Marks]

Section A contains 10 questions (20 words each) and a candidate is required to attempt all 10 questions. Each question is of one mark.

I. Answer the following questions

1. What does min ( ) function do?
2. What is logical AND?
3. How to enter current date in a word file?
4. Define records.
5. What is a query?
6. Define tables.
7. What is trim function used for?
8. What is an e-mail?
9. How to print an e-mail?
10. What is print preview?

Section B [10Marks]

Section B contains 6 questions (50 words each) and a candidate is required to attempt 3 questions, at least 1 from each unit. The first two UNITS are of 3 marks each and the last UNIT is of 4 marks.

II. Answer the following questions

UNIT I (3 Marks)

11. Differentiate between absolute reference and relative reference in MS-Excel.

OR

What do you understand by protecting a worksheet? Write down the steps for the same.

UNIT II (3 Marks)

12. Write the steps for exporting data from MS-Excel to Access.

OR

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Discuss the use of reports in MS-Access.

UNIT III (4 Marks)

13. Write the steps to add a contact in Outlook Express.

OR

How to delete mails and messages of a specific time period?

Section C [30 Marks]

Section C – contains 6 questions. Answer any three questions (400 words each), selecting one from each unit. Each question is of 10 marks.

III. Answer the following questions.

UNIT I

14. What data validation tools are available in Excel? Discuss goal seek analysis in detail, taking suitable examples.

OR

What is Pivot table? How does it help in data analysis?

UNIT II

15. Write the steps to create a database of 10 students. The table includes entries of "Name" "Marks" "Percentage" "Class" Then fetch the data of students who have secured marks greater than 75%

OR

What are the application areas of databases?

UNIT III

16. What are the applications areas of Outlook Express? How does it differ from regular mail service providers?

OR

Write down the steps to do the following:

a. Schedule calendar items
b. Add holidays
c. Add contacts
d. Delete contacts

The End

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Semester II – 2017- 18

End Semester Examination

Class : BCA

Paper V : [BCA-205]: Fundamentals of 'C' Programming

Time : 2 ½ Hrs. **M.M: 50 Marks**

Section A [10 Marks]

Section A contains 10 questions (20 words each) and a candidate is required to attempt all 10 questions. Each question is of one mark.

I. Define the following :

1. User defined function
2. Function
3. Local variable
4. Static
5. Pointer
6. Array
7. Address of (&)
8. Structure
9. Union
10. File handling

Section B [10Marks]

Section B contains 6 questions (50 words each) and a candidate is required to attempt 3 questions, at least 1 from each unit. The first two UNITS are of 3 marks each and the last UNIT is of 4 marks.

II. Answer the following questions

UNIT I (3 Marks)

11. Write C program to generate the sum of Fibonacci series using recursive function.

OR

Differentiate between call by value and call by reference. Explain with examples.

UNIT II (3 Marks)

12. What are the features and uses of pointers in C?

OR

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Write a C program to pass an array containing age of person to a function. This function should find average age. Also display the average age in main function.

UNIT III (4 Marks)

13. Define a structure named 'personal' containing person name, date of joining and salary. Write a C program to initialize one person data and display the same.

OR

Explain, how to create Union variables? Also explain, how to access members of Union?

Section C [30 Marks]

Section C – contains 6 questions. Answer any three questions (400 words each), selecting one from each unit. Each question is of 10 marks.

III. Answer the following questions.

UNIT I

14. Explain the various categories of user defined functions in C with examples.

OR

Write a C program using functions that will calculate and display the real roots of the quadratic equation ax^2+bx+c=0. Using the quadratic formula
x= -b+sqrt(b^2- 4ac)/2a
Assume that a, b and c are floating-point arguments whose values are given and that x_1 and x_2 are floating-point variables. Also, assume that b^2>4ac, so that the calculated roots will always be real.

UNIT II

15. Write shorts notes on the following:
    a. Character pointers and functions
    b. Pointers as function arguments

OR

Explain the following string functions:
    a. strlen
    b. strcat
    c. strcmp
    d. strcmpi
    e. strcpy

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Semester II – 2017- 18

End Semester Examination

Class: B.C.A

Paper VI: [BCA-206]: Multimedia

Time: 2 ½ Hrs. **M.M: 50 Marks**

Section A [10 Marks]

Section A contains 10 questions (20 words each) and a candidate is required to attempt all 10 questions. Each question is of one mark.

I. Answer the following questions

1. What is a raster-image type?
2. Why audio compression is required?
3. Explain speech synthesis.
4. Give full form of MPEG.
5. What is a bitmap image?
6. Explain morphing.
7. What does polystar tool do?
8. Why flash is used as popular software?
9. What is a key frame?
10. Explain digital video-interface.

Section B [10Marks]

Section B contains 6 questions (50 words each) and a candidate is required to attempt 3 questions, at least 1 from each unit. The first two UNITS are of 3 marks each and the last UNIT is of 4 marks.

II. Answer the following questions

UNIT I (3 Marks)

11. Write down the applications of image.

OR

Discuss image capture.

UNIT II (3 Marks)

12. Explain methodology of developing applications using multimedia.

OR

Discuss jpeg image compression.

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UNIT III (4 Marks)

13. Explain 3D rotation.

OR

Differentiate between motion tween and shape tween.

Section C [30 Marks]

Section C – contains 6 questions. Answer any three questions (400 words each), selecting one from each unit. Each question is of 10 marks.

III. Answer the following questions.

UNIT I

14. Explain the advantages and disadvantages of image and video compression.

OR

Explain any five file formats for image.

UNIT II

15. What is multimedia law? Explain its various types.

OR

Explain video file formats. (Any five)

UNIT III

16. What is layer? Explain different type of layers in flash.

OR

Write the steps of adding an effect to a movie clip. Explain any four effects used in flash.

The End

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Semester II – 2018- 19

End Semester Examination

Class : B.C.A.

Paper I : [BCA 201]: Computer Fundamentals - II

Time : 2 ½ Hrs. **M.M: 50 Marks**

Section A [10 Marks]

Section A contains 10 questions (20 words each) and a candidate is required to attempt all 10 questions. Each question is of one mark.

II. Answer the following.

1. What is magnetic disk?
2. What is cache memory?
3. EBCDIC code stands for_____.
4. What is minterm and maxterm?
5. Draw circuit diagram and truth table of Ex-OR.
6. What is website?
7. What is an Internet?
8. Explain de-Morgan theorem.
9. Difference between CD and DVD.
10. What is hexadecimal number system?

Section B [10Marks]

Section B contains 6 questions (50 words each) and a candidate is required to attempt 3 questions, at least 1 from each unit. The first two UNITS are of 3 marks each and the last UNIT is of 4 marks.

III. Answer the following.

UNIT I (3 Marks)

11. What is secondary memory? Explain any two secondary memories.

OR

Describe Auxiliary memory and flash memory.

UNIT II (3 Marks)

12. What are Universal Logic gates? Draw the diagram and explain the truth table.

OR

What is Number System? Explain binary, octal and hexadecimal number system.

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UNIT III (4 Marks)

13. Explain web standards and how web works?

OR

What is e-mail header? Explain different types of websites.

Section C [30 Marks]

Section C – contains 6 questions. Answer any three questions (400 words each), selecting one from each unit. Each question is of 10 marks.

IV. Answer the following.

UNIT I

14. What is a memory? Explain random access memory and read only memory. Explain types of RAM and ROM.

OR

Explain the memory hierarchy and its classification. Differentiate between volatile memory and non-volatile memory.

UNIT II

15. What is software? Explain types of Software (System software, application software and Utility software).

OR

Explain basics operations (Add, Sub, Mul) of Number System. What is Boolean algebra a representation?

UNIT III

16. Explain computer virus. What are the types of viruses and classification of viruses?

OR

Differentiate between Internet and Intranet. What are the symptoms of computer virus and ways to mitigate the computer virus?

The End

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Semester II – 2018- 19

End Semester Examination

Class : B.C.A.

Paper II : [BCA 202]: Management & Accounting - II

Time : 2 ½ Hrs. **M.M: 50 Marks**

Section A [10 Marks]

Section A contains 10 questions (20 words each) and a candidate is required to attempt all 10 questions. Each question is of one mark.

I. Answer the following.

1. Give any two limitations of accounting.
2. Define Accounting Equation.
3. What are debtors and creditors?
4. What do you mean by Revenue?
5. What do you mean by Income Received in advance in current year?
6. What do you mean by adjustment entries?
7. Give any two significance of analysis of financial statement.
8. What do you mean by Interest coverage Ratio?
9. What is profit volume ratio?
10. What do you mean by Budgeting?

Section B [10Marks]

Section B contains 6 questions (50 words each) and a candidate is required to attempt 3 questions, at least 1 from each unit. The first two UNITS are of 3 marks each and the last UNIT is of 4 marks.

II. Answer the following.

UNIT I (3 Marks)

11. What do you mean by Trial Balance? Mention the name of various methods of preparing Trial Balance.

OR

What do you mean by going concern concept?

UNIT II (3 Marks)

12. What is adjustment entries for the following :
    a. Outstanding expenses.
    b. Accrued income.

OR

What do you mean by balance sheet?

UNIT III (4 Marks)

13. If the current ratio is 2:5:1 and liquidity ratio is 1.5:1 and working capital Rs. 60,000. Find the value of current assets and current liabilities.

OR

What do you mean by CVP analysis?

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Section C [30 Marks]

Section C – contains 6 questions. Answer any three questions (400 words each), selecting one from each unit. Each question is of 10 marks.

III. Answer the following.

UNIT I

14. Define the following with suitable example:
    a. Money Measurement concept.
    b. Separate entity concept.
    c. Dual aspect concept.
    d. Accrual concept.

OR

Journals the following transactions in the book of M/s Sunder and Sons.

a. Raghu started a business with cash Rs. 80,000 Goods Rs. 40,000 and furniture Rs. 20,000.
b. Sold Goods to Shyam of the list price Rs. 20,000 at trade discount of 10%.
c. Paid rent Rs. 800 Trade exp Rs. 400 and travelling exp. Rs. 500.
d. Paid into bank to open current account Rs. 20,000.
e. Bought Goods from Kamal for Rs. 20,000 at a trade discount of 10% and cash discount of 2% Paid 60% amount immediately.
f. Received from Shyam full amount at 5% discount.
g. Salary due to clerk Rs. 10,000.
h. Charge Interest on Drawings Rs. 800 .
i. Received Rs. 4000 from Suhas which were written off as Bad debts in the Previous year.
j. Loan taken for car for office use Rs. 1,00,000.

UNIT II

15. Explain in brief the Automatic Accounting process.

OR

Trial balance of M/s Pandit Bros as on March 31, 2018 was as follows:

Name of Account	**Amt (Rs.) (Dr.)**	**Name of Account**	**Amt (Rs.) (Cr.)**
Cash	1,000	Capital	22,000
Bank	5,000	Sales	1,25,000
Wages	8,000	Creditors	15,000
Salaries	25,000		
Furniture	15,000		
Rent of building	13,000		
Debtors	15,500		
Bad debts	4,500		
Purchases	75,000		
Total	**1,62,000**		**1,62,000**

Adjustments:

i. Rent of Building for one month was paid in Advance.
ii. Closing stock as on March 31, 2018 amounted Rs. 10,000.
iii. Wages amounted Rs. 500 is outstanding.
iv. Salaries included Rs. 5000 paid in advance to an employee.
v. Furniture was to depreciated @ 10% p.a.

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vi. Debtors included bad debts Rs. 25,000.
Prepare final accounts of m/s Pandit and sons ending March 31, 2018.

UNIT III

16. The following figures are presented to you:

Year	Sales (Rs.)	Profit / Loss (Rs.)
2018	Rs. 4,00,000	Rs. 50,000 (Profit)
2017	Rs. 1,00,000	Rs. 10,000 (Loss)

Calculate the following:

a. P/v ratio.
b. Break event point.
c. Variable cost for 2017, and 2018.
d. Derived profit on a level of sales Rs. 5,00,000.
e. Fixed cost.

OR

What is the importance of Ratio analysis? Explain in brief any two ratios each for measuring

a. Profitability
b. Liquidity.

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Semester II – 2018- 19

End Semester Examination

Class : B.C.A.

Paper III : [BCA 203]: Data Structure & Algorithms

Time : 2 ½ Hrs. **M.M: 50 Marks**

Section A [10 Marks]

Section A contains 10 questions (20 words each) and a candidate is required to attempt all 10 questions. Each question is of one mark.

I. Answer the following.

1. What is composite data type?
2. Define multidimensional array.
3. Define Binary search.
4. Write the worst case and average case complexity of Bubble Sort.
5. Write the difference between Sorting and Searching.
6. Name the types of linked list.
7. Write the operation performed on array.
8. Define linked list.
9. Write the difference between array and linked list.
10. How many pointers are used in Double linked list? Name them.

Section B [10Marks]

Section B contains 6 questions (50 words each) and a candidate is required to attempt 3 questions, at least 1 from each unit. The first two UNITS are of 3 marks each and the last UNIT is of 4 marks.

II. Answer the following.

UNIT I (3 Marks)

11. Write an algorithm to insert ten elements in a single dimensional array.

OR

Differentiate single and multidimensional array through example.

UNIT II (3 Marks)

12. Write the algorithm of linear search.

OR

Explain selection sort in detail.

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UNIT III (4 Marks)

13. Write an algorithm to traverse a linked list.

OR

Explain the various operations on linked list in detail.

Section C [30 Marks]

Section C – contains 6 questions. Answer any three questions (400 words each), selecting one from each unit. Each question is of 10 marks.

III. Answer the following.

UNIT I

14. Explain memory representation of multidimensional array.

OR

What is index formula? Explain its importance in single dimensional array with an example?

UNIT II

15. What is an array? Explain its various types. State briefly the advantages and disadvantages of using an array.

OR

Write the algorithm for insertion of an element at a desired position and deletion of an element from the front position in an array.

UNIT III

16. Explain representation of linked list in memory.

OR

Write an algorithm for traversing and searching single linked list and doubly linked list.

The End

SOPHIA GIRLS COLLEGE

Sophia Girls' College, Ajmer

(Autonomous)

Semester II – 2018- 19

End Semester Examination

Class : B.C.A.

Paper IV : [BCA 204]: PC Software - II

Time : 2 ½ Hrs. **M.M: 50 Marks**

Section A [10 Marks]

Section A contains 10 questions (20 words each) and a candidate is required to attempt all 10 questions. Each question is of one mark.

I. Answer the following.

1. What is formula addressing?
2. What are the different types of Alignment?
3. What is a ribbon in Excel?
4. What are Macros?
5. What is a datatype?
6. What is a cell name? Give example?
7. What is trim function?
8. What are the statistical functions in MS Excel?
9. Write the different types of Queries?
10. How to print specific cells?

Section B [10Marks]

Section B contains 6 questions (50 words each) and a candidate is required to attempt 3 questions, at least 1 from each unit. The first two UNITS are of 3 marks each and the last UNIT is of 4 marks.

II. Answer the following.

UNIT I (3 Marks)

11. Write the steps to create a bar-chart for any gives data.

OR

Write the feature and uses of MS Excel.

UNIT II (3 Marks)

12. Explain the method for formatting text in Excel worksheet with example.

OR

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Write the methods for including a function into the function library.

UNIT III (4 Marks)

13. Describe the features of MS Access.

OR

Enumerate the different ways for sorting records.

Section C [30 Marks]

Section C – contains 6 questions. Answer any three questions (400 words each), selecting one from each unit. Each question is of 10 marks.

III. Answer the following.

UNIT I

14. Describe the method for printing sheets in Excel with various options.

OR

Explain the various types of conditional formatting in Excel.

UNIT II

15. What is a pivot table? How is it useful?

OR

What is protecting sheet and write the procedure to do it.

UNIT III

16. Discuss the method for creating queries in MS Access. Table with example.

OR

Explain the method for creating and modifying report in MS Access.

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Sophia Girls' College, Ajmer

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Semester II – 2018- 19

End Semester Examination

Class : B.C.A

Paper V : [BCA-205]: Fundamentals of C Programming

Time : 2 ½ Hrs. **M.M: 50 Marks**

Section A [10 Marks]

Section A contains 10 questions (20 words each) and a candidate is required to attempt all 10 questions. Each question is of one mark.

I. Define the following

1. Predefined functions.
2. Global variables
3. Function
4. String
5. Array
6. Character pointers
7. Function arguments
8. Arrays of structures
9. Typedef
10. File opening

Section B [10Marks]

Section B contains 6 questions (50 words each) and a candidate is required to attempt 3 questions, at least 1 from each unit. The first two UNITS are of 3 marks each and the last UNIT is of 4 marks.

II. Answer the following.

UNIT I (3 Marks)

11. Write a C program to calculate the factorial of a number using recursive function.

OR

Explain scope rules with respect to Local and global variables in C.

UNIT II (3 Marks)

12. Explain pointers arrays with appropriate examples.

OR

Explain pointer to functions with appropriate examples.

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UNIT III (4 Marks)

13. Differentiate between structure and Union with example.

OR

Define a structure named 'Student' containing studentname, roll_no, class, age and dateofbirth. Write a C program to initialize one student's data and display the same.

Section C [30 Marks]

Section C – contains 6 questions. Answer any three questions (400 words each), selecting one from each unit. Each question is of 10 marks.

III. Answer the following.

UNIT I

14. Explain storage classes in C with suitable examples.

OR

Given three variable x,y,z write a function to circularly shift their values to right. In other words, if x=5,y=8 and z=10, after circular shift y=5,z=8 and x=10. Call the function with variables a,b,c to circularly shift values.

UNIT II

15. Explain any 4 string handling functions with the program demonstrating their usage.

OR

What do you mean by array of strings? Write a C program to create a list of names and display those names along with their length.

UNIT III

16. Write a C program to copy the contents of one file into another using file handling functions.

OR

Explain different operations that can be carried out on a file.

The End

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Semester II – 2018- 19

End Semester Examination

Class : B.C.A.

Paper VI : [BCA 206]: Multimedia Basics - II

Time : 2 ½ Hrs. **M.M: 50 Marks**

Section A [10 Marks]

Section A contains 10 questions (20 words each) and a candidate is required to attempt all 10 questions. Each question is of one mark.

I. Answer the following.

1. What is audio synthesis?
2. What is speech synthesis?
3. What is an Image?
4. JPEG stands for_____.
5. Define bitmap.
6. MPEG stands for.
7. What is flash?
8. Explain key frames.
9. Explain polystar tool.
10. Explain 3D rotation.

Section B [10Marks]

Section B contains 6 questions (50 words each) and a candidate is required to attempt 3 questions, at least 1 from each unit. The first two UNITS are of 3 marks each and the last UNIT is of 4 marks.

II. Answer the following.

UNIT I (3 Marks)

11. Explain the applications of Images.

OR

Explain audio compression and decompression.

UNIT II (3 Marks)

12. What is digital video Interface?

OR

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What is MPEG video compression?

UNIT III (4 Marks)

13. Explain Layers and its types in flash.

OR

Explain object based animation, motion tween, classic tween and shape tween.

Section C [30 Marks]

Section C – contains 6 questions. Answer any three questions (400 words each), selecting one from each unit. Each question is of 10 marks.

III. Answer the following.

UNIT I

14. Different between raster and vector image? Write five formats of Image.

OR

Explain Image compression: Lossy and lossless compression. Explain advantages and disadvantage of image compression?

UNIT II

15. Explain various multimedia laws.

OR

Explain methodology and design for developing application using multimedia.

UNIT III

16. Explain tools of flash: (Pen, Pencil , Paint Bucket tool, Eye dropper, text)

OR

How to draw objects in flash (line, curve, oval, rectangle)?

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Sophia Girls' College *(Autonomous)*
Ajmer
Semester II – 2021-22
End Semester Examination (May 2022)
Class : B.C.A. / I.M.Sc.
Paper I : [BCA-201]: Digital Computer Fundamentals
Time : 1 ½ Hrs. **M.M: 40 Marks**

Section A [12 Marks]

Section A contains 12 questions (20 words each) and a candidate is required to attempt <u>any 6 questions</u>. Each question is of 2 marks.

I. Answer the following questions.

1. Write down the major components of Digital Computer.
2. Give the Flynn's classification of computer.
3. What will be the 2's compliment of 10001010?
4. Add $(10010101)_2 + (01010101)_2 = (?)_2$
5. Define Truth Table.
6. What is the need of Karnaugh Map?
7. Give the truth table of two input XOR gate.
8. Draw the logic symbol of NOR gate.
9. Define Latch?
10. What is the use of general purpose Register?
11. Name any two Special purpose Registers and give there function.
12. Define Shift registers.

Section B [10 Marks]

Section B contains 6 questions (50 words each) and a candidate is required to attempt <u>any 2 questions from different units</u> . Each question is of 5 marks.

II. Answer the following questions.

UNIT I

13. Perform the following operation:
    (a) $(11110000)_2 + (10111011)_2 = (?)$
    (b) $(11001100)_2 - (10001001)_2 = (?)$
    (c) $(10111010)_2 * (11110011)_2 = (?)$

OR

Add the following BCD numbers: 00010110 + 00010101

UNIT II

14. State De- Morgan's Theorems.

OR

Write down the rules of Boolean Algebra.

UNIT III

15. Explain Half Adder.

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OR

Explain the working of SR Latch.

Section C [18 Marks]

Section C contains 6 questions (400 words each) and a candidate is required to attempt <u>any 2 questions from different units</u>. Each question is of 9 marks.

III. Answer the following questions.

UNIT I

16. What is Gray code ? Explain Gray code to Binary conversion and Binary to Gray code conversion with examples.

OR

Convert the following.

(a) $(1110101)_2 = (?)_{10}$
(b) $(B2F8)_{16} = (?)_{10}$
(c) $(142)_{10} = (?)_2$
(d) $(10111011)_2 = (?)_8$
(e) $(327)_8 = (?)_{16}$

UNIT II

17. Explain AND, OR, NOT,NAND and XOR gate with truth tables.

OR

Simplify the following expressions using Karnaugh Map:

(a) $F(A,B,C,D) = \bar{A}\bar{B}\bar{C}\bar{D} + \bar{A}\bar{B}C\bar{D} + A\bar{B}C\bar{D} + A\bar{B}CD + \bar{A}\bar{B}\bar{C}D + A\bar{B}\bar{C}D$
(b) F(A,B,C,D)= $\bar{A}\bar{B}CD + \bar{A}\bar{B}C\bar{D} + \bar{A}BC\bar{D} + \bar{A}\bar{B}\bar{C}D + \bar{A}\bar{B}\bar{C}\bar{D}$ + ABCD + $\bar{A}BCD + A\bar{B}CD + \bar{A}B\bar{C}\bar{D}$

UNIT III

18. Explain the working of PISO shift register.

OR

Differentiate between Latch and Flip Flop. Also explain the working of JK Flip Flop.

--The End--

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Sophia Girls' College *(Autonomous)*
Ajmer
Semester II – 2021-22
End Semester Examination
Class : B.C.A./ I.M.Sc.
Paper II : [BCA-202]: Management & Accounting

Time : 1 ½ Hrs. **M.M: 40 Marks**

Section A [12 Marks]

Section A contains 12 questions (20 words each) and a candidate is required to attempt <u>any 6 questions</u>. Each question is of 2 marks.

I. Answer the following questions.

1. What is Management ? Define
2. Define the Term Skill.
3. What is management function?
4. What do you understand by Motivation?
5. How the Herzberg factors affect motivation?
6. Define Accounting.
7. How many types of accounts are?
8. Define Ledger.
9. What are debtors and Creditors ?
10. What is Trial Balance?
11. Define Journal.
12. How many types of report are there in Tally?

Section B [10 Marks]

Section B contains 6 questions (50 words each) and a candidate is required to attempt <u>any 2 questions from different units</u> . Each question is of 5 marks.

II. Answer the following questions.

UNIT I

13. Explain the principles of Management.

OR

What do you mean by Planning? Explain its advantage and disadvantage.

UNIT II

14. Explain the theories of Motivation.

OR

What are the basic Golden rules of Accounting?

UNIT III

15. Explain what is tally and where it can be used?

OR

Write short note on:

(a) Voucher
(b) Trial Balance

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Section C [18 Marks]

Section C contains 6 questions (400 words each) and a candidate is required to attempt <u>any 2 questions from different units</u>. Each question is of 9 marks.

III. Answer the following questions.

UNIT I

16. Explain the leadership with all aspect.

OR

What is the contribution of Fayol's Principles for the development of Management Thought?

UNIT II

17. Discuss the Mc Gregor's theory.

OR

Describe the basic concepts of Accounting.

UNIT III

18. Explain the Ledger format with example.

OR

Explain the followings:

(a) Reports
(b) Display
(c) Register
(d) P&L and Balance Sheet.

--The End--

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Sophia Girls' College *(Autonomous)*
Ajmer
Semester II – 2021-22
End Semester Examination
Class : B.C.A. / I.M.Sc.
Paper III : [BCA-203]: Object Oriented Programming With C++
Time : 1 ½ Hrs. **M.M: 40 Marks**

Section A [12 Marks]

Section A contains 12 questions (20 words each) and a candidate is required to attempt <u>any 6 questions</u>. Each question is of 2 marks.

I. Answer the following questions.

1. Define Object Oriented Programming.
2. What is Object?
3. What is Inheritance?
4. What is Polymorphism?
5. What is Abstraction?
6. What is Static Function ?
7. What is Class?
8. What is Friend Function?
9. What are Reusability?
10. What is Encapsulation?
11. What is Destructor?
12. What is Static member function?

Section B [10 Marks]

Section B contains 6 questions (50 words each) and a candidate is required to attempt <u>any 2 questions from different units</u> . Each question is of 5 marks.

II. Answer the following questions.

UNIT I

13. Explain in brief about various features of Object Oriented Programming.

OR

Differentiate between Functional Programming and Object Oriented Programming.

UNIT II

14. What is Overloading? Write a program to explain the concept of Overloading.

OR

Explain the concept of Dynamic memory allocation.

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UNIT III

15. Explain the concept Virtual Function in Object Oriented Programming.

OR

What is File handling? Explain opening, closing, reading and writing operation in files.

Section C [18 Marks]

Section C contains 6 questions (400 words each) and a candidate is required to attempt <u>any 2 questions from different units</u>. Each question is of 9 marks.

III. Answer the following questions.

UNIT I

16. Explain in brief the advantage of Object Oriented Programming.

OR

Explain the following:

(a) Access Specifier(Private, Public, Protected)
(b) Static Class member
(c) Derived Class

UNIT II

17. What is Overriding? Write a program to explain the concept of Overriding?

OR

Explain the following:

(a) Constructor(Default,Parameterized,Copy)
(b) Dynamic Binding
(c) New and Delete Operator

UNIT III

18. Write a program in C++ to read a file and perform the following function?

(a) Display count of character in a file
(b) Display count of New line in a file

OR

Explain the following:

(a) Multiple Inheritance
(b) Operator Overloading (As a Member Function)
(c) Operator Overloading (As a Virtual Function)

--The End--

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Sophia Girls' College *(Autonomous)*
Ajmer
Semester II – 2021-22
End Semester Examination
Class : B.C.A. / I.M.Sc.
Paper IV : [BCA-204]: Data Structure & Algorithm

Time : 1 ½ Hrs. **M.M: 40 Marks**

Section A [12 Marks]

Section A contains 12 questions (20 words each) and a candidate is required to attempt <u>any 6 questions</u>. Each question is of 2 marks.

I. Answer the following questions.

1. Define Data Structure.
2. What is an Array?
3. What do you mean by Recursion?
4. Define Algorithm.
5. Define Stack.
6. What do you mean by Queue?
7. What is a Linked List?
8. What do you mean by Traversing a data structure?
9. Define Tree.
10. What is BST?
11. What do you mean by a Graph?
12. Define complete Graph.

Section B [10 Marks]

Section B contains 6 questions (50 words each) and a candidate is required to attempt <u>any 2 questions from different units</u> . Each question is of 5 marks.

II. Answer the following questions.

UNIT I

13. What are Primitive and Composite data types? Give examples of different primitive and Composite data types.

OR

Differentiate Linear and Binary searching .

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UNIT II

14. What is Doubly Linked List? Explain the traversal in Doubly Linked List.

OR

Explain the Insertion and Deletion in to Linked List using diagrams.

UNIT III

15. What do you mean by Pre-Order, Post- Order and In-Order tree traversal.

OR

Explain the searching concept of BST.

Section C [18 Marks]

Section C contains 6 questions (400 words each) and a candidate is required to attempt any 2 questions from different units. Each question is of 9 marks.

III. Answer the following questions.

UNIT I

16. Write down Algorithm of the following:
    (a) Bubble Sort
    (b) Insertion Sort
    (c) Selection Sort

OR

Explain the Recursion using example:
    (a) Factorial
    (b) Fibonacci
    (c) Tower of Hanoi

UNIT II

17. Explain implementation of stack using array.

OR

Explain the Queue implementation using array.

UNIT III

18. Explain the representation of graph using adjacency Matrix.

OR

Explain graph traversal using any one of the following.
    (a) Breadth first search
    (b) Depth first search

--The End--

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