2017

(3rd Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA–301 (OC)

(Data Structure using C)

(Old Course)

Full Marks : 75

Time : 3 hours

(PART : B—DESCRIPTIVE)

(*Marks* : 50)

The figures in the margin indicate full marks for the questions

1. *(a)* Briefly explain the difference between malloc() and calloc(). 3

(b) What are data structures? Explain by giving suitable example. 3

Or

(c) What are linear and non-linear data structures? Give example. 3

(d) What are pointers? How do you declare and initialize a pointer? Give example. 3

2. *(a)* Briefly explain how stack is implemented by giving suitable example. 4

(b) What is stack underflow? 2

Or

(c) Explain the mode of operation of a double-ended queue. 4

(d) Convert the following infix to postfix expression : 1×2=2

(i) $(A+B)*(C-D)$

(ii) $AB*C-D+E/F$

3. *(a)* What are priority queues? How does it differ from *D*-queue? 3

(b) Perform the stack operation in tabular form of the following expression : 4

7 9 2 * / 12 4 + 3 – 4

Or

(c) Write the application of stack. 3

(d) Write down the conversion expression to prefix, infix and postfix expressions. 4

$Z=(A+B)*C-D$

4. *(a)* What are circular linked lists? Write a C program of a circular linked list to clarify your answer. 2+4=6

(b) Sort the given list in ascending order using bubble sort : 4

57, 2, 9, 27, 87, 4, 22, 30, 41

Or

(c) Explain the different operations that can be performed on linked list. 6

(d) Sort the following in ascending order using quick sort : 4

2, 1, 8, 3, 10, 7, 6, 4, 9

5. *(a)* How do you insert and delete an element in a circular linked list? Explain by giving example. 4

(b) Explain the difference between sequential and binary search. 3

Or

(c) In doubly-circular linked list, you have to delete a node from the end. How would you know that the linked list is already empty? 4

(d) What are time complexities? Write the worst and best case time complexities of selection and bubble sorts. 3

6. *(a)* What is a tree? Explain by giving example. 3

(b) Write notes on the following : 2×2=4

(i) Complete binary tree

(ii) Strictly binary tree

Or

(c) What are binary trees? Explain the different ways to traverse a tree. 4

(d) Define the following : 1½×2=3

(i) Path

(ii) Forest

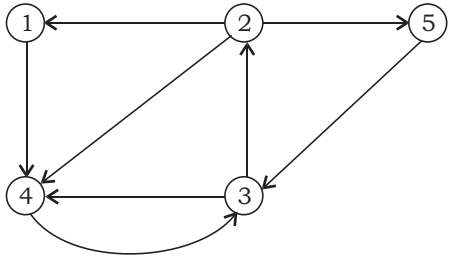
7. *(a)* What is a graph? How does it differ from a tree? 3

(b) Explain with example the difference between DFS and BFS. 4

Or

(c) What is a spanning tree? How is it different from shortest path algorithm? 3

(d) Find out the adjacency matrix and adjacency list for the graph given below : 4



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Subject Code : **III/BCA/301 (OC)**

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(3rd Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA–301 (OC)

(Data Structure using C)

(Old Course)

(PART : A—OBJECTIVE)

(*Marks* : 25)

The figures in the margin indicate full marks for the questions

SECTION—I

(*Marks* : 15)

I. Tick (✓) the correct answer in the brackets provided : 1×10=10

1. What is the output of the following C program?

```
void main()
{
    float p = 3·22, q = 6·0
    int r = 25;
    if (r)
  {
    p = p + 2·3
    q = p + q
  }
    printf ("% f, % f", p, q);
}
```

(a) 5·52, 9·22 ( ) *(b)* 28·22, 31·0 ( )

(c) 5·52, 31·0 ( ) *(d)* 28·22, 9·22 ( )

2. _____ design is the technique of breaking down a problem into various major tasks needed to be performed.

   (a) Top-down ( )

   (b) Bottom-up ( )

   (c) Global ( )

   (d) Algorithm ( )

3. A data structure, in which elements are added and remove only from one end, is known as

   (a) queue ( )

   (b) stack ( )

   (c) array ( )

   (d) linked list ( )

4. A technique which collects all deleted spaces onto free storage list is called

   (a) static memory allocation ( )

   (b) garbage collection allocation ( )

   (c) dynamic memory allocation ( )

   (d) linear memory allocation ( )

5. A complete binary tree of level-3 has how many nodes?

   (a) 3 ( )

   (b 2 ( )

   (c) 5 ( )

   (d) 4 ( )

6. Which of the following is not an operation on stack?

   (a) Push( ) ( )

   (b) Pop( ) ( )

   (c) display( ) ( )

   (d) insert( ) ( )

7. In linked list, a node contains at least

   (a) node address field, data field ( )

   (b) node number, data field ( )

   (c) next address field, information field ( )

   (d) Both *(a)* and *(b)* ( )

8. The inorder traversal of binary tree produced DBEAFC, and the postorder traversal of same tree produced DEBFCA. Which of the following is a correct preorder traversal sequence?

   (a) DBAFCF ( )

   (b) ABECFD ( )

   (c) ABDECF ( )

   (d) AECFED ( )

9. The sort for which time is not proportional to n^2 is

   (a) selection sort ( )

   (b) bubble sort ( )

   (c) quick sort ( )

   (d) heap sort ( )

10. Back tracking is another name for which of the following methods of traversal?

   (a) Depth first ( )

   (b) Breadth first ( )

   (c) D-search ( )

   (d) Input first ( )

II. Tick (✓) whether the following statements are *True* (*T*) or *False* (*F*) : 1×5=5

1. Array are sets of value of the same type, which have a single name followed by an index.

(T / F)

2. The number of total elements in a queue is fixed.

(T / F)

3. A stack may be represented by a linear linked list.

(T / F)

4. In a linked list, each node must have at least two fields.

(T / F)

5. Quick sort and merge sort are the examples of divide and conquer algorithm.

(T / F)

SECTION—II

(*Marks* : 10)

III. Answer the following questions : 2×5=10

1. Distinguish between stack and queue.

2. What do you mean by traversing a tree?

3. Define an array.

4. Differentiate between linear and sequential search.

5. What is Minimal Spanning Tree?

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2017

(3rd Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA–301

(Management Information System)

Full Marks : 75

Time : 3 hours

(PART : B—DESCRIPTIVE)

(*Marks* : 50)

The figures in the margin indicate full marks for the questions

1. *(a)* Explain data and information with a suitable example. 5

(b) Write five roles played by MIS. 5

Or

(c) What do you understand by system? Explain different types of system. 5

(d) What is decision? Write down three requirements for decision making. 5

2. *(a)* Explain various steps involved in the conceptual design of a system. 5

(b) Mention five components required for documentation design. 5

Or

(c) What is report? Write the importance of reports in MIS. 5

(d) Discuss the different steps of the detailed system design. 5

3. *(a)* Mention five pitfalls in the MIS development. 5

(b) What is a system constraint? What are internal constraints and external constraints? 5

Or

(c) Explain conceptual design of MIS. What are the important characteristics of conceptual design? 5

(d) Mention five characteristics of good documentation. 5

4. *(a)* Write a short note on general business planning in MIS. 5

(b) What is planning in MIS? Write the details of MIS plan. 5

Or

(c) Discuss the essential steps in the process of decision making. 5

(d) Define the degree of automation and trade off criteria. 5

5. *(a)* Describe organization theory. What are the two types of organization theory? 5

(b) Differentiate between strategic planning and project planning for MIS. 5

Or

(c) Discuss various steps in system analysis and design process. 5

(d) Explain different steps in system implementation. 5

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2017

(3rd Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA–301

(Management Information System)

(PART : A—OBJECTIVE)

(*Marks* : 25)

The figures in the margin indicate full marks for the questions

SECTION—I

(*Marks* : 15)

I. Put a Tick (✓) mark against the correct answer in the brackets provided : 1×10=10

1. Grouping of interdependent subsystem components gives

   (a) group ( )

   (b) organization ( )

   (c) system ( )

   (d) network ( )

2. Management comprises of

   (a) planning ( )

   (b) controlling ( )

   (c) staffing ( )

   (d) All of the above ( )

3. The decision support systems provide a generalized model of

   (a) information ( )

   (b) decision making ( )

   (c) planning ( )

   (d) implementation ( )

4. In MIS, a process for accomplishing purposes is

   (a) planning ( )

   (b) documentation ( )

   (c) data collection ( )

   (d) system design ( )

5. A decision is the choice out of several options made by

   (a) decision maker ( )

   (b) manager ( )

   (c) user ( )

   (d) organization ( )

6. In the view of business, the management is viewed as

   (a) file ( )

   (b) planning ( )

   (c) system ( )

   (d) documentation ( )

7. Decomposition of the system to operational activities is called

   (a) subsystem ( )

   (b) subprocedure ( )

   (c) subroutine ( )

   (d) suboperation ( )

8. When all the related records are orderly arranged, it is called

   (a) file ( )

   (b) entity ( )

   (c) record set ( )

   (d) database ( )

9. The role of MIS in an organization can be compared to the role of

   (a) brain in the body ( )

   (b) heart in the body ( )

   (c) blood in the body ( )

   (d) ear in the body ( )

10. When row data are processed and arranged meaningfully, it produces

    (a) good data ( )

    (b) information ( )

    (c) file ( )

    (d) document ( )

II. Tick (✓) whether *True (T)* or *False (F)* : 1×5=5

1. Information is derived from well-defined data.

(T / F)

2. Planning is a blueprint of business growth.

(T / F)

3. Conceptual design in itself is the end of the design process.

(T / F)

4. Documentation involves system input, output and overall system flow.

(T / F)

5. The plan for development and its implementation is not the basic necessity for MIS.

(T / F)

SECTION—II

(*Marks* : 10)

III. Answer the following questions : 2×5=10

1. What is information?

2. What do you mean by MIS?

3. What are pitfalls in MIS development?

4. Write two roles of the MIS in an organization.

5. What are different types of Information System at Management levels?

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2017

(3rd Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA–302 (OC)

(Fundamentals of Operating Systems)

(Old Course)

Full Marks : 75

Time : 3 hours

(PART : B—DESCRIPTIVE)

(*Marks* : 50)

The figures in the margin indicate full marks for the questions

1. *(a)* Define operating system. Explain the main purposes of an operating system. 2+8=10

Or

(b) Mention some important properties of the following types of operating systems : 2×5=10

(i) Simple batch system
(ii) Parallel system
(iii) Distributed system
(iv) Real-time system
(v) Cluster system

2. *(a)* Differentiate between process and thread. Explain the different multi-threading models. 2+4=6

(b) Explain the process states with a neat labelled diagram. 4

Or

(c) Differentiate between job scheduler and CPU scheduler. Explain SJF scheduling algorithm with an example. 2+4=6

(d) Explain the contents of a process control block with a diagram. 4

3. *(a)* What is demand paging? Explain the basic paging method with an example. 2+4=6

(b) What is segmentation? Differentiate between logical and physical address space. 2+2=4

Or

(c) Explain the basic concept of virtual memory. 6

(d) Write a short note on process creation. 4

4. *(a)* Explain the different operations that can be performed on system directory. 6

(b) Explain the different file access methods. 4

Or

(c) What is data encryption? Explain the four levels of security measures to protect the system. 5

(d) Explain briefly the different file allocation methods. 5

5. *(a)* Define deadlock. What are the necessary conditions for a deadlock to occur? 5

(b) Explain the method for handling deadlocks. 5

Or

(c) Explain one method for deadlock avoidance. 4

(b) Differentiate between worms and viruses. Explain various approaches to authenticate a user identity. 2+4=6

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Subject Code : III/BCA/302 (OC)

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(3rd Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA–302 (OC)

(Fundamentals of Operating Systems)

(Old Course)

(PART : A—OBJECTIVE)

(*Marks* : 25)

The figures in the margin indicate full marks for the questions

SECTION—I

(*Marks* : 15)

1. Select the correct answer by putting a Tick (✓) mark in the brackets provided : 1×10=10

(a) The user does not interact directly with which of the following computer systems?

(i) Time-sharing systems ( )

(ii) Batch systems ( )

(iii) Clustered systems ( )

(iv) Real-time systems ( )

(b) Originally personal computer operating system is a _____ system.

(i) single-user-single-tasking ( )

(ii) multiuser-multitasking ( )

(iii) single-user-multitasking ( )

(iv) multiuser-single-tasking ( )

(c) Multiprocessor systems are also known as

(i) loosely coupled systems ( )

(ii) tightly coupled systems ( )

(iii) distributed systems ( )

(iv) multiprogrammed systems ( )

(d) A process is more than the program code, which is sometimes known as

(i) data section ( )

(ii) process control block ( )

(iii) text section ( )

(iv) source code ( )

(e) The _____ maps each user thread to a kernel thread.

(i) one-to-one model ( )

(ii) one-to-many model ( )

(iii) many-to-one model ( )

(iv) many-to-many model ( )

(f) An address generated by the CPU is commonly referred to as

(i) a memory address ( )

(ii) a physical address ( )

(iii) a base address ( )

(iv) a logical address ( )

(g) Physical memory is broken into fixed-sized blocks, called

(i) page ( )

(ii) partition ( )

(iii) fragmentation ( )

(iv) frame ( )

(h) _____ is a set of methods for ensuring that at least one of the necessary conditions cannot hold.

(i) Deadlock prevention ( )

(ii) Deadlock avoidance ( )

(iii) Deadlock detection ( )

(iv) Deadlock recovery ( )

(i) A _____ is a sequence of subroutines and functions.

(i) text file ( )

(ii) source file ( )

(iii) executable file ( )

(iv) object file ( )

(j) Which type of file extension indicates an executable file?

(i) .com ( )

(ii) .bat ( )

(iii) .exe ( )

(iv) All of the above ( )

2. State whether the following statements are *True* (*T*) or *False* (*F*) by putting a Tick (✓) mark : 1×5=5

(a) The fundamental goal of operating system is to execute user programs and to make problem easier.

(*T* / *F*)

(b) A lightweight process has a single thread of control.

(*T* / *F*)

(c) Distributed systems depend on networking for their functionality.

(*T* / *F*)

(d) One of the simplest methods for memory allocation is to divide memory into several fixed-sized partitions.

(*T* / *F*)

(e) The FCFS algorithm can be preemptive.

(*T* / *F*)

SECTION—II

(*Marks* : 10)

3. Answer the following questions : 2×5=10

(a) Differentiate between multiprogramming and multitasking.

(b) Define cache memory.

(c) Differentiate between paging and segmentation.

(d) What are the two options for breaking a deadlock?

(e) What is Trojan horse?

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2017

(3rd Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA–302

[Mathematics—III (Numerical Analysis)]

Full Marks : 75

Time : 3 hours

(PART : B—DESCRIPTIVE)

(*Marks* : 50)

The figures in the margin indicate full marks for the questions

Answer **five** questions, selecting **one** from each Unit

UNIT—I

1. *(a)* Using Regula-Falsi method, find the real root of the equation $x^3 \quad 4x \quad 9 \quad 0$ correct to 3 decimal places. 5

(b) Use iteration method to find a root of the equation $x^3 \quad x^2 \quad 100 \quad 0$ to 4 decimal places . 5

2. *(a)* Solve the following by Gauss elimination method : 5

$$2x \quad y \quad z \quad 10$$
$$3x \quad 2y \quad 3z \quad 18$$
$$x \quad 4y \quad 9z \quad 16$$

(b) Apply Gauss-Seidel method to solve the following equations : 5

$$20x \quad y \quad 2z \quad 17$$
$$3x \quad 20y \quad z \quad 18$$
$$2x \quad 3y \quad 20z \quad 25$$

UNIT—II

3. *(a)* Evaluate : 2+2=4

(i) $\int^{2} \frac{1}{x^2 \quad 5x \quad 6}$

(ii) $(e^{3x} \log 2x)$

(b) Express $u \quad x^4 \quad 12x^3 \quad 24x^2 \quad 30x \quad 9$ in factorial notation. Hence show that $^5u \quad 0$. 3

(c) Obtain the function whose first difference is $2x^3 \quad 3x^2 \quad 5x \quad 4$. 3

4. *(a)* Sum the following series : 5

$$1^3 \quad 2^3 \quad 3^3 \quad \cdots \quad n^3$$

(b) Prove that $(1 \quad)^{\frac{1}{2}} \quad (1 \quad)^{\frac{1}{2}}$. 3

(c) Show that $^3y_2 \quad ^3y_5$. 2

UNIT—III

5. *(a)* From the following table, find y when x 2 4 by Newton's interpolation formula : 5

x	1·7	1·8	1·9	2·0	2·1	2·2	2·3
y	5·474	6·050	6·686	7·389	8·166	9·025	9·914

(b) Using Gauss forward formula, find y when x 3 75 from the following table : 5

x	2·5	3·0	3·5	4·0	4·5	5·0
y	24·145	22·043	20·225	18·644	17·267	16·047

6. *(a)* The following table gives the values of x and y. Find the value of x when y 12 using Lagrange's inverse interpolation method : 5

x	1·2	2·1	2·8	4·1	4·9	6·2
y	4·2	6·8	9·8	13·4	15·5	19·6

(b) Using Newton's divided difference formula, evaluate y when x 8, from the following table : 5

x	4	5	7	10	11	13
y	48	100	294	900	1210	2028

UNIT—IV

7. *(a)* Find the derivative of $f(x)$ at x 0 4 from the following table : 5

x	0·1	0·2	0·3	0·4
y	1·10517	1·22140	1·34986	1·49182

(b) Evaluate

$$\int_0^6 \frac{dx}{1 \quad x^2}$$

using *(i)* Simpson's $\frac{1}{3}$rd rule and *(ii)* Simpson's $\frac{3}{8}$th rule. 5

8. *(a)* Use Romberg's method to compute

$$\int_0^1 \frac{dx}{1 \quad x^2}$$

correct to 4 decimal places. 5

(b) Apply trapezoidal rule to evaluate

$$\int_{1}^{5}\int_{1}^{5} \frac{dx\,dy}{\sqrt{x^2 \quad y^2}}$$

taking two subintervals. 5

UNIT—V

9. *(a)* Using Picard's method, find an approximate value of y when $x \quad 0\ 1$, if $\frac{dy}{dx} \quad x \quad y^2$ and $y \quad 1$ at $x \quad 0$. 5

(b) Using Euler's method, find an approximate value of y corresponding to $x \quad 1$, given that $\frac{dy}{dx} \quad x \quad y$ and $y \quad 1$, when $x \quad 0$. 5

10. Solve the following differential equations : 5+5=10

(i) $\frac{dy}{dx} \quad \frac{x \quad y}{x \quad y}$

(ii) $x\frac{dy}{dx} \quad 2y \quad x\sin x$

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Subject Code : III/BCA/302

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2017

(3rd Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA–302

[Mathematics—III (Numerical Analysis)]

(PART : A—OBJECTIVE)

(*Marks* : 25)

The figures in the margin indicate full marks for the questions

SECTION—I

(*Marks* : 15)

I. Tick (✓) the correct answer in the brackets provided : 1×10=10

1. A numerical integration when applied to a function of a single variable is known as

   (a) quadratuple ( )

   (b) quadrature ( )

   (c) quarterback ( )

   (d) None of the above ( )

2. The process of calculating the value of the derivative of a function at some assigned value of x from the given set of values (x_i, y_i) is called

   (a) calculus ( )

   (b) integration ( )

   (c) numerical analysis ( )

   (d) numerical differentiation ( )

3. The process of computing the value of the function outside the given range is called

   (a) interpolation ( )

   (b) extrapolation ( )

   (c) intervention ( )

   (d) None of the above ( )

4. In factorial notation, $[x^3]$ is

   (a) $x(x \quad 1)$ ( )

   (b) $x(x \quad 1)(x \quad 2)$ ( )

   (c) $x(x \quad 1)(x \quad 2)(x \quad 3)$ ( )

   (d) None of the above ( )

5. A polynomial $f(x)$ is called algebraic equation if $f(x)$ is

   (a) 1 ( )

   (b) 0 ( )

   (c) –1 ( )

   (d) None of the above ( )

6. In algebraic and transcendental equations, solutions are known as

   (a) roots ( )

   (b) solutions ( )

   (c) approximations ( )

   (d) None of the above ( )

7. The value of $E(y^2 \quad 4)$ is

   (a) $y^2 \quad 4$ ( )

   (b) $(y \quad h) \quad 4$ ( )

   (c) $((y \quad h)^2 \quad 4)$ ( )

   (d) None of the above ( )

8. $y_{3/2}$ $y_{1/2}$

(a) $^3y_{3/2}$ ( )

(b) y_1 ( )

(c) $^2y_1$ ( )

(d) None of the above ( )

9. The interpolation method used for unequal intervals is

(a) Lagrange's interpolation formula ( )

(b) Newton's forward formula ( )

(c) Gauss backward formula ( )

(d) None of the above ( )

10. A differential equation may contain

(a) mathematical equation ( )

(b) derivatives ( )

(c) constants ( )

(d) All of the above ( )

II. Indicate *True (T)* or *False (F)* by a Tick (✓) mark : 1×5=5

1. In Gauss-Jordan method, we eliminate variable from all the equations in the first step itself.

(T / F)

2. The process of finding the value of y corresponding to the value of x x_i between x_0 and y_0 is called interpolation.

(T / F)

3. If a function contains trigonometric, logarithmic, exponential functions, it is called transcendental function.

(T / F)

4. The n th differences of a polynomial of the n th degree are constant and all higher order differences are zero.

(T / F)

5. y_1 y_0 y_1 y_0 $y_{3/2}$.

(T / F)

SECTION—II

(*Marks* : 10)

III. Answer the following questions briefly : 2×5=10

1. Differentiate 'order' and 'degree' of a differential equation with example.

2. Write down the general formula for Newton's forward interpolation.

3. Express $y \quad 2x^3 \quad 3x^2 \quad 3x \quad 10$ in factorial notation.

4. Prove that $^2y_8 \quad y_8 \quad 2y_7 \quad y_6$.

5. Prove that $y \quad \frac{1}{3} x^{\ 2}$ is the solution of $\frac{dy}{dx} \quad 6y^2 x$.

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2017

(3rd Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA–303 (OC)

(Accounting and Financial Management)

(Old Course)

Full Marks : 75

Time : 3 hours

(PART : B—DESCRIPTIVE)

(*Marks* : 50)

The figures in the margin indicate full marks for the questions

Answer question No. **1** and *any* **three** from the rest

1. *(a)* Prepare Final Accounts from the following Trial Balance of *ABC* Pvt. Ltd. as on 31st March, 2017 : 15

Particulars	*Debit* (₹)	*Credit* (₹)
Capital	—	20,000
Drawings	1,700	—
Plant & Machinery	12,000	—
Horses and Carts	2,600	—
Debtors	3,600	—

Particulars	*Debit* (₹)	*Credit* (₹)
Creditors	—	2,600
Purchases	2,000	—
Sales	—	4,200
Wages	800	—
Cash at Bank	2,600	—
Salaries	800	—
Repairs	190	—
Opening Stock	1,600	—
Rent	450	—
Manufacturing Expenses	150	—
Bills Payable	—	2,350
Bad debts	500	—
Carriage	160	—
	29,150	29,150

Adjustments :

(i) Closing stock ₹ 1,600

(ii) Depreciate Plant and Machinery @ 10% and Horses and Carts @ 15%

(iii) Outstanding Wages ₹ 150

(iv) Allow Interest on Capital @ 5% p.a.

(v) Prepaid Rent ₹ 50

(b) What is book-keeping? Explain the limitations of accounting. 5

2. The expenses budgeted for production of 500 units in a factory are given below :

Particulars	*Per Unit*
Material	50
Labour	15
Variable factory overhead	10
Fixed factory overhead	10
Variable expenses (Direct)	05
Selling expenses (20% fixed)	07
Distribution expenses (40% variable)	05
Administration expenses (₹ 3,000 fixed)	03
	105

You are required to prepare a budget for the production of 300 units. 10

3. *(a)* State the difference between management Accounting and Financial accounting. 6

(b) Explain the advantages of budgetary control. 4

4. *(a)* Explain the objectives and limitations of ratio analysis. 6

(b) Explain the objectives of management accounting. 4

5. *(a)* From the following particulars, calculate contribution, P/V ratio and BEP in rupees and units : 6

Fixed expenses ₹ 1,50,000

Variable cost per unit ₹ 10

Selling price per unit ₹ 15

(b) What are the advantages and limitations of marginal costing? 4

6. *(a)* From the following information, calculate : 6

(i) Material cost variance

(ii) Material price variance

(iii) Material usage variance

Material	*Standard*	*Actual*
A	40 units @ ₹ 50/units	50 units @ ₹ 50/units
B	60 units @ ₹ 40/units	60 units @ ₹ 45/units

(b) What are the limitations of budgetary control? 4

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Subject Code : III/BCA/303 (OC)

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(3rd Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA–303 (OC)

(Accounting and Financial Management)

(Old Course)

(PART : A—OBJECTIVE)

(*Marks* : 25)

The figures in the margin indicate full marks for the questions

SECTION—I

(*Marks* : 15)

1. Select the correct answer by putting a Tick (✓) mark in the brackets provided : 1×10=10

(a) Which of the following equations is correct?

(i) Assets = Liabilities – Capital ( )

(ii) Assets = Liabilities + Capital ( )

(iii) Liabilities = Assets + Capital ( )

(iv) None of the above ( )

(b) Writing of transaction in the Ledger is called

(i) costing ( )

(ii) balancing ( )

(iii) journalizing ( )

(iv) posting ( )

(c) Gross profit is ascertained by

(i) Trial balance ( )

(ii) Trading A/c ( )

(iii) Profit & Loss A/c ( )

(iv) Balance Sheet ( )

(d) 'Journal entry' is the book

(i) of original entry ( )

(ii) of secondary entry ( )

(iii) of all cash transactions ( )

(iv) to record petty-cash transactions ( )

(e) Assets have _____ balance.

(i) debit ( )

(ii) credit ( )

(iii) expense ( )

(iv) revenue ( )

(f) Working capital is

(i) proprietor's capital ( )

(ii) borrowed capital ( )

(iii) current assets/liabilities ( )

(iv) fixed capital ( )

(g) Indirect expenses are shown in

(i) Trial Balance ( )

(ii) Trading A/c ( )

(iii) Profit & Loss A/c ( )

(iv) Balance Sheet ( )

(h) The feature(s) of budgetary control is/are

(i) planning ( )

(ii) control ( )

(iii) coordination ( )

(iv) All of the above ( )

(i) The purpose of financial statement is to ascertain the

(i) profit ( )

(ii) value of assets ( )

(iii) financial position ( )

(iv) value of liabilities ( )

(j) Trial balance is prepared according to _____ method.

(i) balance ( )

(ii) total ( )

(iii) total and balance ( )

(iv) All of the above ( )

2. State whether the following statements are *True (T)* or *False (F)* by putting a Tick (✓) mark in the brackets provided : 1×5=5

(a) Debit the receiver, credit the giver is the rule of Personal A/c.

(T / F)

(b) Margin of Safety = Total Sales – Sales at BEP.

(T / F)

(c) Assets and liabilities are two sides of Cash Book.

(T / F)

(d) Bank is not an asset.

(T / F)

(e) Outstanding expenses are shown as Liabilities side in the Balance Sheet.

(T / F)

SECTION—II

(*Marks* : 10)

3. Write notes on the following : 2×5=10

(a) Accounting

(b) Zero-base budgeting

(c) Ratio analysis

(d) Ledger

(e) Golden rules of debit and credit

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2017

(3rd Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA–303

(Operating Systems)

Full Marks : 75

Time : 3 hours

(PART : B—DESCRIPTIVE)

(*Marks* : 50)

The figures in the margin indicate full marks for the questions

1. *(a)* Define kernel. Explain the primary goals of operating system. 2+4=6

(b) Explain briefly the basic components of computer system. 4

Or

(c) Explain the concepts of time-sharing system and distributed system. 6

(d) Explain any four services provided by an operating system. 4

2. *(a)* What is context switch? Explain the three types of scheduler. 2+4=6

(b) Explain the contents of a process control block with diagram. 4

Or

(c) Differentiate between user threads and kernel threads. Explain the many-to-many multithreading model. 4

(d) The following processes arrive for execution at time 0, with the length of CPU burst time given in milliseconds :

Process	*Burst time*
P1	8
P2	5
P3	3
P4	9

Draw a Gantt chart and compare the average waiting time for FCFS, SJF (non-preemptive) and RR (given : quantum time is 5 milliseconds) schedulings. 6

3. *(a)* Explain swapping with a suitable diagram. 4

(b) Differentiate between logical and physical address spaces. Explain the concepts of virtual memory. 2+4=6

Or

(c) Explain the basic paging method for memory management with example. 4

(d) Describe the following allocation algorithms : 2×3=6

(i) First fit

(ii) Best fit

(iii) Worst fit

4. *(a)* Explain the concepts of file attributes, file operations and file types. 6

(b) Explain briefly the different file access methods. 4

Or

(c) Write a short note on directory structure. 5

(d) Explain briefly the different file allocation methods. 5

5. *(a)* Explain the different methods of deadlock recovery. 5

(b) What is semaphore? Explain the implementation of counting semaphore in terms of binary semaphore. 5

Or

(c) Explain the methods for handling deadlocks. 5

(d) Differentiate between program threads and system threads. 5

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Subject Code : III/BCA/303

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(3rd Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA–303

(Operating Systems)

(PART : A—OBJECTIVE)

(*Marks* : 25)

The figures in the margin indicate full marks for the questions

SECTION—I

(*Marks* : 15)

I. Tick (✓) the correct answer in the brackets provided : 1×10=10

1. The systems that have more than one processor in close communication, sharing the computer bus, the clock and sometimes memory and peripheral devices are

   (a) parallel systems ( )

   (b) multiprocessor systems ( )

   (c) tightly couple systems ( )

   (d) All of the above ( )

2. The interval from the time of submission of a process to the time of completion is called

   (a) turnaround time ( )

   (b) waiting time ( )

   (c) response time ( )

   (d) throughput ( )

3. A memory area that stores data while they are transferred between two devices or between a device and an application is called

   (a) virtual memory ( )

   (b) swapping ( )

   (c) buffer ( )

   (d) cache memory ( )

4. If several jobs are ready to run at the same time, the system must choose among them. Making this decision is

   (a) job scheduling ( )

   (b) CPU scheduling ( )

   (c) batch scheduling ( )

   (d) process scheduling ( )

5. The performance of the RR scheduling algorithm depends heavily on

   (a) arriving time of the process ( )

   (b) size of the process ( )

   (c) size of the time quantum ( )

   (d) All of the above ( )

6. The run-time mapping from virtual address to physical address is done by

   (a) operating system ( )

   (b) hardware device ( )

   (c) dynamic loading ( )

   (d) dynamic linking ( )

7. Logical memory is broken into blocks of the same size, is called

   (a) page ( )

   (b) partition ( )

   (c) fragmentation ( )

   (d) frame ( )

8. A _____ is a set of methods for ensuring that at least one of the necessary conditions cannot hold.

   (a) deadlock prevention ( )

   (b) deadlock avoidance ( )

   (c) deadlock detection ( )

   (d) deadlock recovery ( )

9. A directory structure scheme which allows directories to have shared subdirectories and files is

   (a) single-level directory ( )

   (b) two-level directory ( )

   (c) tree-structured directory ( )

   (d) acyclic-graph directory ( )

10. The _____ is not applicable to a resource-allocation system with multiple instances of each resource type.

   (a) resource-allocation graph algorithm ( )

   (b) Banker's algorithm ( )

   (c) safety algorithm ( )

   (d) resource-request algorithm ( )

II. Indicate whether the following statements are *True (T)* or *False (F)* by putting a Tick (✓) mark :

1×5=5

1. Multiprogramming increases CPU utilization by organizing jobs so that the CPU always has one to execute.

(T / F)

2. A swapper manipulates entire processes, whereas a pager is concerned with the individual pages of a process.

(T / F)

3. All the multiprocessor systems are multicore systems.

(T / F)

4. The priority scheduling algorithm can be preemptive or nonpreemptive.

(T / F)

5. An object file is a series of code sections that the loader can bring into memory and execute.

(T / F)

SECTION—II

(*Marks* : 10)

III. Answer the following questions : 2×5=10

1. Differentiate between process and thread.

2. What is blade server?

3. What is demand paging?

4. What is graceful degradation?

5. What are the two advantages of encrypting data stored in the computer system?

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2017

(3rd Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA–303P

(UNIX and Shell Programming)

(Practical)

Full Marks : 75

Time : 3 hours

The figures in the margin indicate full marks for the questions

SECTION—A

Answer *any* **two** questions

1. Write a program to create a file, count the number of lines, words and characters of that file. 15

2. Write a program to calculate the sum of five-digit numbers. 15

3. Write a shell script to calculate Profit & Loss. 15

4. Write a program to calculate gross salary if the DA is 55% of basic salary, HRA is 25% of basic salary. 15

SECTION—B

Answer *any* **one** question

5. Write a program to determine whether the given year is leap year or not. 20

6. Write a shell script to print the prime numbers from 1 to 100. 20

SECTION—C

7. Viva voce 15

8. Practical record book 10

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2017

(3rd Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA–304 (OC)

(E-Commerce and Web Technology)

(Old Course)

Full Marks : 75

Time : 3 hours

(PART : B—DESCRIPTIVE)

(*Marks* : 50)

The figures in the margin indicate full marks for the questions

1. *(a)* Define ASP. What are the five benefits of ASP? 5

(b) Explain how the server and clients work in ASP. 5

Or

(c) What are data and information? Explain data processing using ASP. 5

(d) Write down the functions of the following : 5

(i) Server

(ii) Client

2. *(a)* Write the major function of the Request objects and the Response objects with simple example. 5

(b) Write down how to send text using the Response object. 5

Or

(c) Write down how the Request objects obtain information from the browser. 5

(d) Explain the following terms with suitable example : 5

(i) The Request objects

(ii) The Response objects

3. *(a)* What is a session? Write the different session variables. 5

(b) Explain the ASP Session objects and Request form collection. 5

Or

(c) Define the function of the following terms : 5

(i) The global.asa file

(ii) Session ID Cookie

(d) What is ASP variable? Write the three types of ASP variables. 5

4. *(a)* What is e-commerce? Write the benefits of e-commerce to—

(i) organizations;

(ii) consumers;

(iii) society. 5

(b) Explain the following models of e-commerce : 5

B2B , B2C , C2B , C2C

Or

(c) Define EDI. Explain EDI technologies. 5

(b) Write five technical and non-technical limitations of e-commerce. 5

5. *(a)* Define e-payment. Explain the different types of e-payments. 5

(b) Write the important tools used for e-payment security. 5

Or

(c) Explain push and pull technology in advertisement strategy with example. 5

(d) Explain the following terms : 5

(i) e-cash

(ii) e-check

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(3rd Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA–304 (OC)

(E-Commerce and Web Technology)

(Old Course)

(PART : A—OBJECTIVE)

(*Marks* : 25)

The figures in the margin indicate full marks for the questions

SECTION—I

(*Marks* : 15)

1. Select the correct answer by putting a Tick (✓) mark in the brackets provided : 1×10=10

(a) Information about, or change settings for a user session is stored by

(i) request object ( )

(ii) response object ( )

(iii) session object ( )

(iv) cookies collection ( )

(b) ASP stands for

(i) Active Server Package ( )

(ii) Active Server Page ( )

(iii) Advance Service Page ( )

(iv) All of the above ( )

(c) An optional file that can contain declarations of objects, variables and methods that can be accessed by every page in an ASP application is

(i) the static.asp file ( )

(ii) the global.asa file ( )

(iii) cookies objects file ( )

(iv) All of the above ( )

(d) Which of the following objects is mainly used to retrieve the information in an HTML page?

(i) Request object ( )

(ii) Response object ( )

(iii) Session object ( )

(iv) Cookies object ( )

(e) Which of the following objects is used to send information to the user (i.e. to the browser)?

(i) Request object ( )

(ii) Response object ( )

(iii) Session object ( )

(iv) Server object ( )

(f) Which of the following objects is used to share information among the users of the Web application?

(i) Request object ( )

(ii) Response object ( )

(iii) Application object ( )

(iv) IIS object ( )

(g) Component used to find out the capabilities of the browser is

(i) browser capabilities ( )

(ii) create object ( )

(iii) URL encode ( )

(iv) All of the above ( )

(h) The major form of e-commerce, where the seller and the buyer participate as business entities, is

(i) C2C ( )

(ii) B2C ( )

(iii) B2B ( )

(iv) C2B ( )

(i) For which type of e-commerce, the individuals require a platform or an intermediary for business transactions?

(i) C2C ( )

(ii) B2C ( )

(iii) B2B ( )

(iv) A2B ( )

(j) A standard network protocol used to exchange and manipulate files over a TCP/IP-based network such as the Internet is

(i) HTTP ( )

(ii) URL ( )

(iii) WWW ( )

(iv) FTP ( )

2. State whether the following statements are *True (T)* or *False (F)* by putting a Tick (✓) mark : 1×5=5

(a) Electronic payment systems (EPS) do not provide complete point-of-sale merchant processing payment solutions for all business types.

(T / F)

(b) For an e-commerce site, proper e-commerce Web development is required.

(T / F)

(c) Internet-based EDI complements or replaces many current EDI applications.

(T / F)

(d) The Scripts in an ASP file are executed on the server.

(T / F)

(e) The Request and Response objects do not contain collections.

(T / F)

SECTION—II

(*Marks* : 10)

3. Answer the following questions : 2×5=10

(a) What is IIS?

(b) What do you mean by cryptography?

(c) Define digital wallet.

(d) What do you mean by electronics money?

(e) What is Smart Card?

★★★

2017

(3rd Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA–304

(Object-oriented Programming in C++)

Full Marks : 75

Time : 3 hours

(PART : B—DESCRIPTIVE)

(*Marks* : 50)

The figures in the margin indicate full marks for the questions

1. *(a)* Differentiate between procedure-oriented programming and object-oriented programming. 4

(b) Explain the following terms : 2×3=6

(i) Class

(ii) Object

(iii) Encapsulation

Or

(c) Write a CPP program to demonstrate inheritance. 8

(d) Differentiate between variables and constants. 2

2. *(a)* Explain the concept of function overloading with example. 4

(b) Explain the concept of array of object with a program example. 6

Or

(c) What is friend function? Why do we need friend function? 4

(d) Explain the concept of in-line function with a program example. 6

3. *(a)* Define a class 'complex No' which has two real numbers (float type) as private data member, one represent the real part and one for imaginary part. Define constructors to initialize the object. 5

(b) What is copy constructor? 2

(c) What are the three special characteristics of static data member? 3

Or

(d) Differentiate between constructor and destructor. 4

(e) Write a CPP program to find the sum of two complex numbers using overloading binary operator. 6

4. *(a)* What are derived class and base class? 2

(b) Differentiate between public and private inheritances. 4

(c) What is operator overloading? Explain the steps involved in operator overloading. 4

Or

(d) Explain the concept of multiple inheritance with a program example. 6

(e) What are new and delete operators in memory management? 4

5. *(a)* What is a template? Write a CPP program to show the use of function template. 1+4=5

(b) Define container. With a neat diagram explain the three categories of a container. 1+4=5

Or

(c) Explain hierarchy of the stream classes with a neat and labelled diagram. 5

(d) What is an exception? How is it handled in C++? 5

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Subject Code : III/BCA/304

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(3rd Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA–304

(Object-oriented Programming in C++)

(PART : A—OBJECTIVE)

(*Marks* : 25)

The figures in the margin indicate full marks for the questions

SECTION—I

(*Marks* : 15)

1. Choose the correct alternative by putting a Tick (✓) mark in the brackets provided : 1×10=10

(a) In which of the following situations, will you make use of the scope resolution operator?

(i) Definition written within the main( ) function ( )

(ii) Definition written within the class ( )

(iii) Definition written outside the class ( )

(iv) None of the above ( )

(b) Nesting of classes implies _____.

(i) polymorphism ( )

(ii) inheritance ( )

(iii) relationship ( )

(iv) encapsulation ( )

(c) Which of the following is not a member of class?

(i) Virtual function ( )

(ii) Static function ( )

(iii) Friend function ( )

(iv) Data member ( )

(d) Which of the following is legal to access a class data member using 'this' pointer?

(i) (this). *x* ( )

(ii) (this.*x*) ( )

(iii) this.*x* ( )

(iv) this.*x* ( )

(e) Which of the following functions is performed by a constructor?

(i) Construct a new class ( )

(ii) Destroy a class ( )

(iii) Initialize object ( )

(iv) Create a new function ( )

(f) The operator that cannot be overloaded is _____.

(i) operator ( )

(ii) ++ operator ( )

(iii) ~ operator ( )

(iv) operator ( )

(g) A private member function of the base class can be accessed by derived class objects using _____ member functions of the base class.

(i) protected ( )

(ii) private ( )

(iii) public ( )

(iv) All of the above ( )

(h) A _____ function takes objects as its argument.

(i) friend ( )

(ii) static ( )

(iii) member ( )

(iv) None of the above ( )

(i) An exception is caused by _____.

(i) a compile error ( )

(ii) a run-time error ( )

(iii) a hardware problem ( )

(iv) All of the above ( )

(j) The function's most important role is _____.

(i) to accept arguments and provide a return value ( )

(ii) to give a name to a block ( )

(iii) to reduce program size ( )

(iv) to do complicated calculations ( )

2. Indicate *True (T)* or *False (F)* by a Tick (✓) mark : 1×5=5

(a) To use either input or output file, the program must include the **fstream.h.**

(T / F)

(b) A static function can be called using the object name and function name.

(T / F)

(c) It is mandatory to open the file before you perform read/write operation on it.

(T / F)

(d) When an exception is not caught, the program is aborted.

(T / F)

(e) Template functions cannot be overloaded.

(T / F)

SECTION—II

(*Marks* : 10)

3. Answer the following questions : 2×5=10

(a) What are the significance of visibility modes in inheritance?

(b) Give any two applications of OOP.

(c) Explain virtual function.

(d) Define stream. Give example.

(e) What is generic programming?

★★★

2017

(3rd Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA–304P

(C++ Programming)

(Practical)

Full Marks : 75

Time : 3 hours

The figures in the margin indicate full marks for the questions

SECTION—A

Answer *any* **two** questions

1. Write a CPP program of copy constructors. 15

2. Write a CPP program for implementation of unary minus operator. 15

3. Write a CPP program which shows the use of static member function. 15

SECTION—B

Answer *any* **one** question

4. Write a CPP program of hybrid inheritance. 20

5. Write a CPP program for implementation of virtual function. 20

SECTION—C

6. Viva voce 15

7. Record book 10

★ ★ ★

2017

(3rd Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA–305 (OC)

(Data Structure Using C)

(Practical)

(Old Course)

Full Marks : 75

Time : 3 hours

The figures in the margin indicate full marks for the questions

Answer **one** question from Sections A and B

SECTION—A

1. Write a program for implementing heap sort using array. 20

2. Write a program for implementing stack using array. 20

SECTION—B

3. Write a program for linear search. 30

4. Write a program for implementing queue using array. 30

SECTION—C

5. Viva voce 15

6. Practical record book 10

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2017

(3rd Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA–305

(Computer Organization and Architecture)

Full Marks : 75

Time : 3 hours

(PART : B—DESCRIPTIVE)

(*Marks* : 50)

The figures in the margin indicate full marks for the questions

1. *(a)* Using 4×1 multiplexers, design a common bus system for four registers and explain how it works. 8

(b) Write the graphic symbol for three-state buffer. 2

Or

(c) Explain different types of shift microoperations with suitable examples. 6

(d) What is a binary adder? Construct a circuit diagram for a 4-bit binary adder using full-adder. 4

2. *(a)* Write and explain the three basic computer instruction code formats. 6

(b) Explain four phases of an instruction cycle. 4

Or

(c) Explain the categories of computer programs with examples. 7

(d) Explain the fields of an assembly language program. 3

3. *(a)* Explain one-address, two-address and three-address instructions. 6

(b) Write the major characteristics of RISC architecture. 4

Or

(c) Describe any four addressing modes. 6

(d) Write the major characteristics of CISC architecture. 4

4. *(a)* Discuss the three modes of data transfer to and from peripherals. 6

(b) What is asynchronous data transfer? Explain by giving a suitable diagram. 4

Or

(c) Explain Direct Memory Access (DMA) by giving a suitable block diagram. 6

(d) Write the flowchart of the communication of CPU and IOP. 4

5. *(a)* Write the block diagram and function table of 128 × 8 RAM chip and explain how it works. 8

(b) What is content addressable memory? 2

Or

(c) Explain associative, direct and set-associative mapping by giving a suitable diagram. 10

★★★

Subject Code : III/BCA/305

Booklet No. A

Date Stamp .....

.....

To be filled in by the Candidate

DEGREE 3rd Semester
(Arts / Science / Commerce / .....) Exam., **2017**

Subject .....

Paper .....

INSTRUCTIONS TO CANDIDATES

1. **The Booklet No. of this script should be quoted in the answer script meant for descriptive type questions and vice versa.**
2. **This paper should be ANSWERED FIRST and submitted within 1 (one) Hour of the commencement of the Examination.**
3. **While answering the questions of this booklet, any cutting, erasing, over-writing or furnishing more than one answer is prohibited. Any rough work, if required, should be done only on the main Answer Book. Instructions given in each question should be followed for answering that question only.**

To be filled in by the Candidate

DEGREE 3rd Semester
(Arts / Science / Commerce / .....) Exam., **2017**

Roll No. .....

Regn. No. .....

Subject .....

Paper .....

Descriptive Type

Booklet No. B .....

Signature of Scrutiniser(s)

Signature of Examiner(s)

Signature of Invigilator(s)

2 0 1 7

(3rd Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA–305

(Computer Organization and Architecture)

(PART : A—OBJECTIVE)

(*Marks* : 25)

The figures in the margin indicate full marks for the questions

SECTION—I

(*Marks* : 15)

I. Tick (✓) the correct answer in the brackets provided : 1×10=10

1. The microoperation that specify binary operations for strings of bits stored in register is called

   (a) shift microoperations ( )

   (b) arithmetic microoperations ( )

   (c) logic microoperations ( )

   (d) data microoperations ( )

2. The register that holds an address for the memory unit is called

   (a) DAR ( )

   (b) MAR ( )

   (c) IR ( )

   (d) PC ( )

3. A group of bits that instruct the computer to perform a specific operation is called

   (a) operation code ( )

   (b) bit code ( )

   (c) instruction code ( )

   (d) byte code ( )

4. The instruction that stores the content of AC into the memory word is

   (a) LDA ( )

   (b) STA ( )

   (c) BUN ( )

   (d) ISZ ( )

5. Input or output devices attached to the computer are also called

   (a) peripherals ( )

   (b) DMA ( )

   (c) I/O strobe ( )

   (d) controllers ( )

6. The standard binary code for the alphanumeric characters is

   (a) HEX ( )

   (b) B-coding ( )

   (c) ASCII ( )

   (d) EBBDIC ( )

7. Which of the following is an auxiliary memory?

   (a) RAM ( )

   (b) Register ( )

   (c) Cache memory ( )

   (d) Magnetic disk ( )

8. When a program attempts to reference a page that is still in auxiliary memory, it is called

   (a) page miss ( )

   (b) page hit ( )

   (c) page fault ( )

   (d) paging ( )

9. A set of common instructions that can be used in a program many times is called

   (a) assembly language ( )

   (b) subroutine ( )

   (c) program loops ( )

   (d) common instruction ( )

10. The collection of all status bit conditions in the CPU is called

   (a) program status word ( )

   (b) status bits ( )

   (c) bit ratio ( )

   (d) program bits ( )

II. Indicate *True (T)* or *False (F)* by a Tick (✓) mark : 1×5=5

1. R1 R2 denotes transfer of information from R2 to R1.

(T / F)

2. Effective addresses are defined as the address of the operand in a computation-type instruction.

(T / F)

3. A status command is issued to activate the peripheral and to inform it what to do.

(T / F)

4. An address in main memory is called physical address.

(T / F)

5. Translation of symbolic program into binary is done by compiler.

(T / F)

SECTION—II

(*Marks* : 10)

III. Answer the following questions : 2×5=10

1. What is register transfer language?

2. Differentiate between machine language and assembly language.

3. Distinguish between data transfer instruction and data manipulation instruction.

4. What is memory-mapped I/O?

5. What is a bootstrap-loader?

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2017

(3rd Semester)

BACHELOR OF COMPUTER APPLICATION

Paper No. : BCA–306 (OC)

(Web Technology and Tally)

(Practical)

(Old Course)

Full Marks : 75

Time : 3 hours

The figures in the margin indicate full marks for the questions

PART—A

1. Evaluate of semi-project with viva voce. 50

PART—B

Answer *any* **one** question

2. Prepare Final Account from the following Trial Balance of Kima Ltd. as on 31st December, 2017 : 25

	Amount (₹)
Purchases	12,000
Furniture	600
Sales	15,000
Cash at Bank	1,500
Capital	10,000
Commission (Cr)	500
Insurance	500
Creditors	2,000
Purchase Returns	2,000
Discount	500
Sales Returns	1,000
Drawings	1,400
Debtors	5,000
Opening Stock	3,000
Investments	4,000
Bills Receivable	3,000
Discount (Cr)	1,000
Bank Loan	2,000
Office Expenses	2,500
Bills Payable	2,500

Adjustment :

Closing Stock was valued at ₹ 15,000

3. Using Tally, journalise the following transactions and post them in the Ledgers A/c : 25

2017, July

1 Kima started business with cash ₹ 2,00,000 and building ₹ 1,50,000

4 Purchase furniture worth ₹ 10,000

7 Paid wages and salaries worth ₹ 200 and ₹ 500 respectively

10 Paid goods to Kumar ₹ 5,000 in cheque

13 Purchase goods to Andy at ₹ 7,000 in cash

17 Deposited cash to bank ₹ 9,000

20 Cash received from John ₹ 12,000

25 Received cash from Andy

29 Purchase Scooty from Liana ₹ 25,000

31 Sold machine worth ₹ 15,000 to David at ₹ 7,000

★ ★ ★