ALAGAPPA UNIVERSITY

[Accredited with 'A+' Grade by NAAC (CGPA:3.64) in the Third Cycle and Graded as Category–I University by MHRD-UGC]

(A State University Established by the Government of Tamil Nadu)

Karaikudi. 630003.

Directorate of Distance Education

CONTINOUS INTERNAL ASSESMENT (CIA)

ASSIGNMENT QUESTIONS

PROGRAMME CODE	
BCA – 101	BCA(LE) -127

Bachelor of Computer Applications (B.C.A)

(2019 - 2020)

Programme code	Programme Name	Semester
101	Bachelor of Computer Applications (B.C.A)	I

☞ *Instructions*

➢ *Assignments should be written in the candidate's own handwriting in the A4 sheets on only one side of the paper.*
➢ *Combine two course assignments into single spiral binding for submission.*
➢ *Maximum. Marks. 25 for each Theory and Practical course.*
➢ *Model Practical Test will be conducted during PCP schedule for Practical courses every semester.*

The list of topics for assignment for each course is furnished below:

Course code: 10113	C & Data Structure
1. What are the data types in C language? 2. Explain about various types of control statements in C. Give examples. 3. Define pointer. Explain the concept of pointer arithmetic in C. 4. How will you define and process structure in C. 5. What is data structure and its types? What is stack? Explain the operations on stack with neat diagram.	

Course code: 10114	C & Data Structure Lab
Write aim, algorithm, Source code, Input and Output; 1. Write a C Program to perform Fibonacci series using recursion. 2. Write a C Program to implement binary search technique. 3. Write a C program to check given string is palindrome or not. 4. Write a C program to implement the operations of queue using array.	

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Programme code	Programme Name	Semester
101	**Bachelor of Computer Applications (B.C.A)**	**II**

Instructions

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➢ *Combine two course assignments into single spiral binding for submission.*
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Course Code: 10123	Programming in C++
1. Explain the basic concepts of Object-Oriented Programming. 2. Write short note on : Friend function 3. Discuss about various types of inheritance with neat diagram and examples. 4. Explain in detail about function templates. Give examples.	

Course Code: 10124	Programming in C++ Lab
Write aim, algorithm, Source code, Input and Output; 1. Write a C++ program to reverse the sentence and find the given sentence is Palindrome or not. 2. Write a C++ program to sort given numbers in ascending order using bubble sort. 3. Write a C++ program to find the product of two matrices A and B.	

Programme code	Programme Name	Semester
BCA - 101 **BCA (LE) - 127**	**Bachelor of Computer Applications** **(B.C.A / B.C.A(LE))**	**III**

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The list of topics for assignment for each course is furnished below:

Course Code :10133 / 12733	Relational Database Management Systems (RDBMS)
1. Explain about Normalization and its types. 2. Discuss in detail about database schema (Schema & Sub Schema). 3. Elucidate about Data Definition Language Statements with examples.	

Course Code :10134 / 12734	Relational Database Management Systems LAB

MODEL PRACTICAL TEST
Write aim, algorithm, Source code, Input and Output;

1. Create *address* table with fields (name, age, sex, street, city and pincode).
   1.1 Write SQL query to add 5 Records
   1.2 Write SQL Query to display the fields NAME, STREET alone on the screen.
   1.3 Write SQL query to display the records for AGE > 20 AND CITY = 'KARAIKUDI'
   1.4 Write SQL query to SORT the table in the ascending order of NAME.

2. (a) Create table *student* with the fields *(regno,name,mark1,mark2,mark3,total,result)*
   2.1 Write SQL query to insert 5 records
   2.2 Write SQL query to calculate total = mark1+mark2+mark3
   2.3 Write SQL query to update RESULT field with 'PASS' if total >= 150 otherwise 'FAIL'

   (b) Design and develop an application using PL/SQL for student mark processing.

3. (a) Create table *blooddonar* with fields;
   (dno,dname,dob,age,addr1,addr2,city,pin,sex,bgroup)
   3.1 Write SQL query to Insert 5 Records.
   3.2 Write SQL query to display all the records.
   3.3 Write SQL query to display donors in the age group 20 to 25 using BETWEEN option.
   3.4 Write SQL query to display donors date of birth BETWEEN 01-JAN-18 and 31-DEC-18.

Programme code	Programme Name	Semester
BCA - 101 BCA (LE) - 127	Bachelor of Computer Applications (B.C.A/ B.C.A(LE))	IV

Instructions

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➢ *Model Practical Test will be conducted during PCP schedule for Practical courses every semester.*

The list of topics for assignment for each course is furnished below:

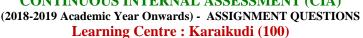| Course Code: 10143 / 12743	Internet and Java Programming
1. How will you define and access package in Java? Explain 2. Define thread. Discuss about multithreading with suitable example. 3. Explain in detail about the life cycle of an Applet. 4. How will you define and implement interface? Explain.	

Course Code: 10144 / 12744	Internet and Java Programming Lab
Write Aim, Algorithm, Source code, Input and Output; 1. Write a Java program to multiply two matrices A of size m x n and B of n x m. 2. Write a Java program to create a thread by extending the thread class. 3. Write a Java applet program to draw 3D rectangle and square.	

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BCA - 101 BCA (LE) - 127	Bachelor of Computer Applications (B.C.A/ B.C.A(LE))	V

Instructions

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➢ *Combine all course assignments into single spiral binding for submission.*
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The list of topics for assignment for each course is furnished below:

Course Code: 10151 / 12751	ACCOUNTING FUNDAMENTALS

1. What are the functions of accounting?
2. What are the classifications of Ratios?
3.

From the following balances, taken from the Trial Balance of Shri Suresh, prepare a Trading and Profit and Loss Account for the year ending 31st Dec., 2017:

Particulars	Dr. ₹	Cr. ₹
Stock on 1.1.2017	2,000	
Purchases and Sales	20,000	30,000
Returns	2,000	1,000
Carriage	1,000	
Cartage	1,000	
Rent	1,000	
Interest Received		2,000
Salaries	2,000	
General Expenses	1,000	
Discount		500
Insurance	500	

The Closing Stock on 31st December, 2017 is ₹5,000.

Course Code: 10152 / 12752	COMPUTER GRAPHICS

1. Explain about DDA Line Drawing Algorithm.
2. Discuss in detail about 2D Transformations with neat diagram.
3. What is clipping? What are its types?
4. Briefly explain about Window to Viewport Transformation.

Course Code: 10153 / 12753	**OPERATING SYSTEMS**

1. What is deadlock? Explain the dead lock avoidance with Banker's algorithm.
2. Briefly explain about priority scheduling.
3. Explain round robin scheduling algorithm.
4. Write short note on : Paging.

Course Code: 10154 / 12754	**UNIX & SHELL PROGRAMMING LAB**

Write aim, algorithm, Source code, Input and Output;

1. Write a shell program to check whether the given year is leap year or not.
2. Write shell program to find the factorial of given N value.
3. Write a shell program for finding the greatest among three numbers.

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BCA - 101 **BCA (LE) - 127**	**Bachelor of Computer Applications** **(B.C.A / B.C.A (LE))**	**VI**

Instructions

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The list of topics for assignment for each course is furnished below:

Course Code: 10161 / 12761	**Management Principles and Techniques**

1. Explain the concept of MBO and its process.
2. What is Leadership? Explain about various leadership styles.
3. Explain the steps involved in simplex method.

Course Code: 10162 / 12762	**System Analysis and Design**

1. Explain about the System development life cycle.
2. What is system? Explain about Decision Support System.
3. Explain about sequential file organization.

Course Code: 10163 / 12763	**Visual Basic Programming**

1. Explain about VB control arrays with example.
2. Discuss about using MDI forms.
3. Briefly explain about any two VB Basic controls.

Course Code: 10164 / 12764	**Visual Programming Lab**
Write aim, algorithm, Source code, Input and Output;	

1. Write a VB code to create dialog boxes.
2. Develop a menu driven application for file operations (New, Open, close)
3. Design a VB code to use data controls for student database.

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