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.

# **Centre for Distance and Online Education**

# CONTINOUS INTERNAL ASSESMENT ( CIA )

# **ASSIGNMENT QUESTIONS**



# **PROGRAMME CODE: 313**

Learning Centre : Karaikudi (100)

# **M.Sc (Information Technology)**

(2021 - 2022 )





Programme code	Programme Name	Semester
313	M.Sc (INFORMATION TECHNOLOGY)	Ι

#### Instructions

- Assignments should be written in the candidate's own handwriting in the A4 sheets on only one side of the paper.
- > Combine all course assignments (Theory and Practical) into a single spiral Binding.
- > Maximum. Marks. 25 for each Course (Theory and Practical).
- > Model Practical Test will be conducted <u>during PCP schedule</u> for Practical courses every semester.

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

#### Course Code : 31311 | Computer Organization and Architecture

- 1. What are the different types of basic gates?
- 2. What are the types of combinational circuits?
- 3. Explain about D flip flop with the help of diagram.
- 4. Briefly explain about various storage devices.

#### Course Code : 31512 Object Oriented Programming and Java

- 1. Explain about the basic concepts of Object-Oriented Programming.
- 2. Discuss about multi-threading concept in Java.
- 3. Write short note on: Applets and Interfaces
- 4. Elucidate about creating and accessing packages.

## Course Code : 31313 Data Structures and Algorithms

- 1. Define Data Structure. What are its types?
- 2. Briefly explain about searching of elements using Binary Search Technique
- 3. Explain about soring of numbers using Quick sort algorithm.
- 4. Discuss in detail about implementation of queue or stack with example.

# Course Code : 31314Object Oriented Programming and Java LabWrite Aim, Algorithm, Source code, Input, output and result;

- 1. Write a Java program to create a thread by extending the thread class.
- 2. Write a Java applet program to draw 3D rectangle and square.
- 3. Write a Java code to illustrate single inheritance.





Programme code	Programme Name	Semester
313	M.Sc (INFORMATION TECHNOLOGY)	II

#### Instructions

- Assignments should be written in the candidate's own handwriting in the A4 sheets on only one side of the paper.
- > Combine all four course assignments into single binding for submission.
- Model Practical Test will be conducted <u>during PCP schedule</u> for Practical courses of every semester.
- > Maximum. Marks. 25 for each Course (Theory and Practical).

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

## Course.code: 31321 Data Mining and Warehousing

- 1. Explain the life cycle of data mining with neat diagram.
- 2. Briefly explain about Apriori algorithm.
- 3. Discuss about Bayesian classification algorithm with example.

#### Course.code: 31322 | Relational Database Management System

- 1. With neat diagram explain the architecture of DBMS.
- 2. Discuss in detail about various forms of normalization.
- 3. Explain about various Data Manipulation Language(DML) Statements with examples.

## Course.code: 31323 Visual Programming with .NET

- 1. Explain the different types of branching statements and loops along with their syntax.
- 2. Write the syntax for creating class.
- 3. Explain how you will create an event and delegate.

## Course .code:31324 VB.NET and RDBMS Lab

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

- 1) Write a VB.NET program to generate the factorial of a given number.
- 2) Write a VB.NET program to create an Advertisement using Ad rotator.
- 3) (a) Create table *student* with the following fields;

#### student(regno,name,mark1,mark2,mark3,total,result)

- Write SQL query to insert 5 records
- Write SQL query to calculate total = mark1+mark2+mark3
- 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.





Programme code	Programme Name	Semester
313	M.Sc (INFORMATION TECHNOLOGY)	III

#### Instructions

- Assignments should be written in the candidate's own handwriting in the A4 sheets on only one side of the paper.
- > Combine four course assignments into single spiral binding for submission.
- > Maximum. Marks. 25 for each Course (Theory and Practical).
- > Model Practical Test will be conducted <u>during PCP schedule</u> for Practical courses every semester.

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

Course Code: 31331	Open source software
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- 1. Explain briefly about open sources and its advantages?
- 2. Elucidate about Python tuple functions with example.
- 3. Mention the use of SELECT statement and also Mention it clauses in MySQL.

#### Course Code : 31332 Operating system

- 1. What is deadlock? Explain the dead lock avoidance with Bankers algorithm.
- 2. Briefly explain about priority scheduling.
- 3. Explain round robin scheduling algorithm.

## Course Code : 31333Computer Networks

1. Explain various components computer networks.

- 2. Discuss about the network topology with neat diagrams.
- 3. Explain about the working method of OSI reference model with neat sketch.

# Course Code : 31334 | Open source Lab

Write Aim, Algorithm, Source code, Input, output and result;

1. Write a Python program to display numbers from 1-20 using for loop.

2. Design a PHP code to display a web page of student profile.

3. Write a shell program to swap two numbers.





Programme code	Programme Name	Semester
313	M.Sc (INFORMATION TECHNOLOGY)	IV

# **Instructions**

- Assignments should be written in the candidate's own handwriting in the A4 white sheets on only one side of the paper.
- > Combine four course assignments into single spiral binding for submission.
- > Maximum. Marks. 25 for each Course (Theory and Practical).
- > Model Practical Test will be conducted <u>during PCP schedule</u> for Practical courses every semester.

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

#### Course Code : 31341 Web Technology

- 1. Explain about list tags in HTML. Give examples.
- 2. Discuss in detail about the life cycle of servlet with neat diagram.
- 3. Briefly explain about MVC architecture.

#### Course Code : 31342 Software Engineering

- 1. Explain in detail about the Water fall model with neat diagram
- 2. Briefly explain about scenario-based modeling and class-based modelling.
- 3. What are the approaches for software testing? Explain.

## Course Code : 31343Cloud Computing

- 1. What is cloud computing? What are the advantages and disadvantages of cloud computing?
- 2. Briefly explain about various types of cloud service deployment.
- 3. Discuss about Collaborating on Group Projects and Events.

# Course Code : 31344 Web Technology Lab

# Write Aim, Algorithm, Source code, Input, output and result;

- 1. Write a HTML code to display simple table using tag with its attributes.
- 2. Write a code to illustrate external style sheets.
- 3. Write a servlet code to display ' Hello World"