

# **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**

**CONTINUOUS INTERNAL ASSESMENT ( CIA )**

**ASSIGNMENT QUESTIONS**



**PROGRAMME CODE: 313**

**Learning Centre : Karaikudi (100)**

**M.Sc (Information Technology)**

**(2022 - 2023 )**



**ALAGAPPA UNIVERSITY, KARAIKUDI**  
**CENTRE FOR DISTANCE AND ONLINE EDUCATION**  
**CONTINUOUS INTERNAL ASSESSMENT (CIA)**  
 (2018-2019 Academic Year Onwards) - ASSIGNMENT QUESTIONS  
**Learning Centre : Karaikudi (100)**



| Programme code | Programme Name                | Semester |
|----------------|-------------------------------|----------|
| 313            | M.Sc (INFORMATION TECHNOLOGY) | I        |

**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 during PCP schedule 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?<br>2. What are the types of combinational circuits?<br>3. Explain about D flip flop with the help of diagram.<br>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.<br>2. Discuss about multi-threading concept in Java.<br>3. Write short note on: Applets and Interfaces<br>4. Elucidate about creating and accessing packages. |                                      |

| Course Code : 31313   | Data Structures and Algorithms |
|---|--------------------------------|
| 1. Define Data Structure. What are its types?<br>2. Briefly explain about searching of elements using Binary Search Technique<br>3. Explain about sorting of numbers using Quick sort algorithm.<br>4. Discuss in detail about implementation of queue or stack with example. |                                |

| Course Code : 31314  | Object Oriented Programming and Java Lab |
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| <i>Write Aim, Algorithm, Source code, Input, output and result;</i>  |  |
| 1. Write a Java program to create a thread by extending the thread class.<br>2. Write a Java applet program to draw 3D rectangle and square.<br>3. Write a Java code to illustrate single inheritance. |  |

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 Learning Centre : Karaikudi (100)



| 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 during PCP schedule 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:**

|  |                                    |
|--|------------------------------------|
| <b>Course.code: 31321</b>  | <b>Data Mining and Warehousing</b> |
| 1. Explain the life cycle of data mining with neat diagram.<br>2. Briefly explain about Apriori algorithm.<br>3. Discuss about Bayesian classification algorithm with example. |                                    |

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| <b>Course.code: 31322</b>  | <b>Relational Database Management System</b> |
| 1. With neat diagram explain the architecture of DBMS.<br>2. Discuss in detail about various forms of normalization.<br>3. Explain about various Data Manipulation Language(DML) Statements with examples. |  |

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|---|-------------------------------------|
| <b>Course.code: 31323</b>   | <b>Visual Programming with .NET</b> |
| 1. Explain the different types of branching statements and loops along with their syntax.<br>2. Write the syntax for creating class.<br>3. Explain how you will create an event and delegate. |                                     |

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| <b>Course .code:31324</b>  | <b>VB.NET and RDBMS Lab</b> |
| <b>Write aim, algorithm, Source code, Input and Output;</b><br><br>1) Write a VB.NET program to generate the factorial of a given number.<br>2) Write a VB.NET program to create an Advertisement using Ad rotator.<br>3) (a) Create table <i>student</i> with the following fields;<br><br><div style="text-align: center;"> <math>student(regno,name,mark1,mark2,mark3,total,result)</math> </div> <ul style="list-style-type: none"> <li>• Write SQL query to insert 5 records</li> <li>• Write SQL query to calculate total = mark1+mark2+mark3</li> <li>• Write SQL query to update result field with 'PASS' if total &gt;= 150 otherwise 'FAIL'</li> </ul> (b) Design and develop an application using PL/SQL for student mark processing. |                             |

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 (2018-2019 Academic Year Onwards) - ASSIGNMENT QUESTIONS  
**Learning Centre : Karaikudi (100)**



| 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 during PCP schedule for Practical courses every semester.*

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

|  |                             |
|--|-----------------------------|
| <b>Course Code : 31331</b>   | <b>Open source software</b> |
| <ol style="list-style-type: none"> <li>1. Explain briefly about open sources and its advantages?</li> <li>2. Elucidate about Python tuple functions with example.</li> <li>3. Mention the use of SELECT statement and also Mention it clauses in MySQL.</li> </ol> |                             |

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|---|-------------------------|
| <b>Course Code : 31332</b>  | <b>Operating system</b> |
| <ol style="list-style-type: none"> <li>1. What is deadlock? Explain the dead lock avoidance with Bankers algorithm.</li> <li>2. Briefly explain about priority scheduling.</li> <li>3. Explain round robin scheduling algorithm.</li> </ol> |                         |

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|---|--------------------------|
| <b>Course Code : 31333</b>  | <b>Computer Networks</b> |
| <ol style="list-style-type: none"> <li>1. Explain various components computer networks.</li> <li>2. Discuss about the network topology with neat diagrams.</li> <li>3. Explain about the working method of OSI reference model with neat sketch.</li> </ol> |                          |

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|---|------------------------|
| <b>Course Code : 31334</b>  | <b>Open source Lab</b> |
| <i>Write Aim, Algorithm, Source code, Input, output and result;</i>   |                        |
| <ol style="list-style-type: none"> <li>1. Write a Python program to display numbers from 1-20 using for loop.</li> <li>2. Design a PHP code to display a web page of student profile.</li> <li>3. Write a shell program to swap two numbers.</li> </ol> |                        |

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| 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 during PCP schedule for Practical courses every semester.*

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

|   |                       |
|---|-----------------------|
| <b>Course Code : 31341</b>  | <b>Web Technology</b> |
| <ol style="list-style-type: none"> <li>1. Explain about list tags in HTML. Give examples.</li> <li>2. Discuss in detail about the life cycle of servlet with neat diagram.</li> <li>3. Briefly explain about MVC architecture.</li> </ol> |                       |

|   |                             |
|---|-----------------------------|
| <b>Course Code : 31342</b>  | <b>Software Engineering</b> |
| <ol style="list-style-type: none"> <li>1. Explain in detail about the Water fall model with neat diagram</li> <li>2. Briefly explain about scenario-based modeling and class-based modelling.</li> <li>3. What are the approaches for software testing? Explain.</li> </ol> |                             |

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|--|------------------------|
| <b>Course Code : 31343</b>   | <b>Cloud Computing</b> |
| <ol style="list-style-type: none"> <li>1. What is cloud computing? What are the advantages and disadvantages of cloud computing?</li> <li>2. Briefly explain about various types of cloud service deployment.</li> <li>3. Discuss about Collaborating on Group Projects and Events.</li> </ol> |                        |

|  |                           |
|--|---------------------------|
| <b>Course Code : 31344</b>   | <b>Web Technology Lab</b> |
| <i>Write Aim, Algorithm, Source code, Input, output and result;</i>  |                           |
| <ol style="list-style-type: none"> <li>1. Write a HTML code to display simple table using &lt;table&gt; tag with its attributes.</li> <li>2. Write a code to illustrate external style sheets.</li> <li>3. Write a servlet code to display ‘ Hello World’</li> </ol> |                           |

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