

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

CONTINUOUS INTERNAL ASSESMENT (CIA)

ASSIGNMENT QUESTIONS



PROGRAMME CODE : 518

**DIPLOMA
IN
ARTIFICIAL INTELLIGENCE AND MACHINE
LEARNING**

(2021 - 2022)



ALAGAPPA UNIVERSITY, KARAIKUDI
DIRECTORATE OF DISTANCE EDUCATION
CONTINUOUS INTERNAL ASSESSMENT (CIA)
(2021 Calendar Year Onwards) - ASSIGNMENT QUESTIONS
Learning Centre : Karaikudi (100)



| Programme code | Programme Name | Semester |
|----------------|--|----------|
| 518 | DIPLOMA IN ARTIFICIAL INTELLIGENCE AND MACHINLE LEARNAING | I |

Instructions

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

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

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| Course Code: 51811 | Fundamentals of Artificial Intelligence |
| <ol style="list-style-type: none"> 1. What is Artificial Intelligence? 2. Explain about best first search technique with algorithm. 3. Briefly explain about procedural knowledge. 4. Write short note on neural network learning. | |

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| Course Code: 51812 | Relational Database Management System (RDBMS) |
| <ol style="list-style-type: none"> 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. | |

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| Course Code: 51813 | R Programming |
| <ol style="list-style-type: none"> 1. What are the features of R Programming? 2. Briefly explain about various control structure in R. 3. Explain about vector and its manipulation. | |

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| Course Code: 52814 | R Programming Lab |
| INTERNAL EXAM PRACTICAL | |
| Write Aim, Algorithm, Source code, Input and Output; | |
| <ol style="list-style-type: none"> 1. Write a R program to perform matrix multiplication. 2. Write a R program to display the numbers between 1 and 10 as even number or odd using looping. | |

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| Programme code | Programme Name | Semester |
|----------------|--|-----------|
| 518 | DIPLOMA IN ARTIFICIAL INTELLIGENCE AND MACHINLE LEARNAING | II |

Instructions

- *Assignments should be written in the candidate's own handwriting in the A4 white sheets on only one side of the paper.*
- *Combine all 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:

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|---|---|
| Course Code: 51821 | Fundamentals of Machine Learning |
| <ol style="list-style-type: none"> 1. What are the applications of Machine Learning? Explain 2. Discuss about Decision Tree classification with example. 3. Explain about hierarchical clustering algorithm. | |

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| Course Code: 51822 | Principles of Soft Computing |
| <ol style="list-style-type: none"> 1. Explain in detail about back propagation neural network learning algorithm. 2. Briefly explain about fuzzy membership functions with neat diagram. 3. Discuss about the operations of Genetic algorithm. | |

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| Course Code: 51823 | Python Programming |
| <ol style="list-style-type: none"> 1. Briefly explain about tuples and its functions with examples. 2. Explain about various manipulations of dictionary in Python. 3. Write short note on : Scipy and Numpy | |

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| Course Code: 52824 | Machine Learning using Python Lab |
| INTERNAL PRACTICAL TEST | |
| Write Aim, Algorithm, Source code, Input and Output; | |
| <ol style="list-style-type: none"> 1. Write a program to perform list processing (create, change and remove elements from the list) in Python. 2. Write a Python program to perform k-means clustering. | |

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