SAVITIBAI PHULE UNIVERSITY

M.Sc.(Computer Science) Sem-I

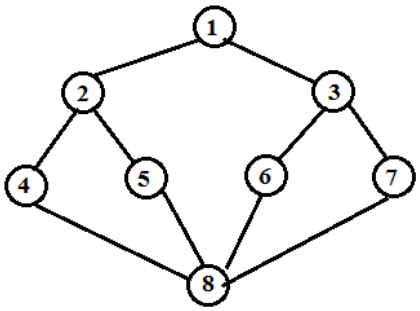
Practical Examination (From 2023-2024)

SUBJECT: CS-505-MJP: Lab Course on CS-502-MJ (Artificial Intelligence)

Time: 3 Hours **Max. Marks: 35**

Q.1) Python program that demonstrates the hill climbing algorithm to find the maximum of a mathematical function.(For example f(x) = -x^2 + 4x) **[10Marks]**

Q.2) Write a Python program to implement Depth First Search algorithm. Refer the following graph as an Input for the program. [Initial node=1,Goal node=8] **[20 Marks]**



Q.3) Viva **[5 Marks]**

SAVITIBAI PHULE UNIVERSITY

M.Sc.(Computer Science) Sem-I

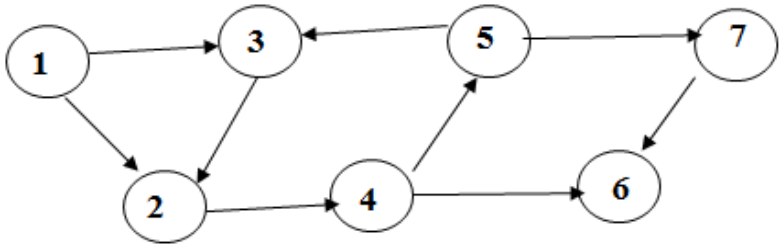
Practical Examination (From 2023-2024)

SUBJECT: CS-505-MJP: Lab Course on CS-502-MJ (Artificial Intelligence)

Time: 3 Hours **Max. Marks: 35**

Q.1) Write a python program to generate Calendar for the given month and year?. **[10 Marks]**

Q.2) Write a Python program to implement Depth First Search algorithm. Refer the following graph as an Input for the program.[Initial node=1,Goal node=7]. **[20 Marks]**



Q.3) Viva **[5 Marks]**

---------- Slip 2 ----------

SAVITIBAI PHULE UNIVERSITY

M.Sc.(Computer Science) Sem-I

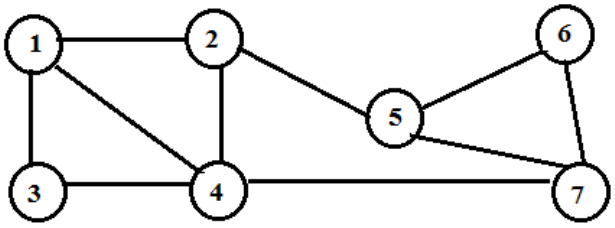
Practical Examination (From 2023-2024)

SUBJECT: CS-505-MJP: Lab Course on CS-502-MJ (Artificial Intelligence)

Time: 3 Hours **Max. Marks: 35**

Q.1) Write a python program to remove punctuations from the given string? .**[10 marks]**

Q.2) Write a Python program to implement Depth First Search algorithm. Refer the following graph as an Input for the program.[Initial node=2,Goal node=7] **[20 Marks]**



Q.3) Viva **[5 Marks]**

---------- Slip 3 ----------

SAVITIBAI PHULE UNIVERSITY

M.Sc.(Computer Science) Sem-I

Practical Examination (From 2023-2024)

SUBJECT: CS-505-MJP: Lab Course on CS-502-MJ (Artificial Intelligence)

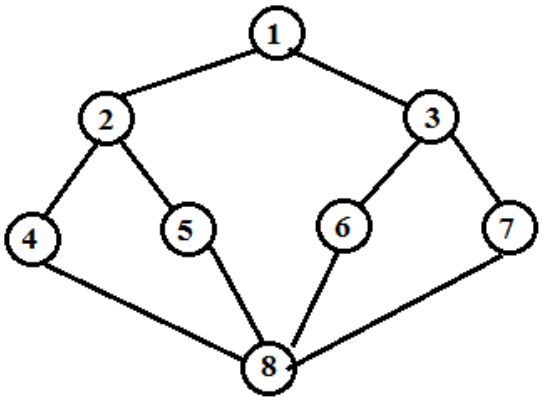
Time: 3 Hours **Max. Marks: 35**

Q.1) Write a program to implement Hangman game using python. [10 Marks]

Description:

Hangman is a classic word-guessing game. The user should guess the word correctly by entering alphabets of the user choice. The Program will get input as single alphabet from the user and it will matchmaking with the alphabets in the original

Q.2) Write a Python program to implement Breadth First Search algorithm. Refer the following graph as an Input for the program.[Initial node=1,Goal node=8] **[20 Marks]**



Q.3) Viva **[5 Marks]**

---------- Slip 4 ----------

SAVITIBAI PHULE UNIVERSITY

M.Sc.(Computer Science) Sem-I

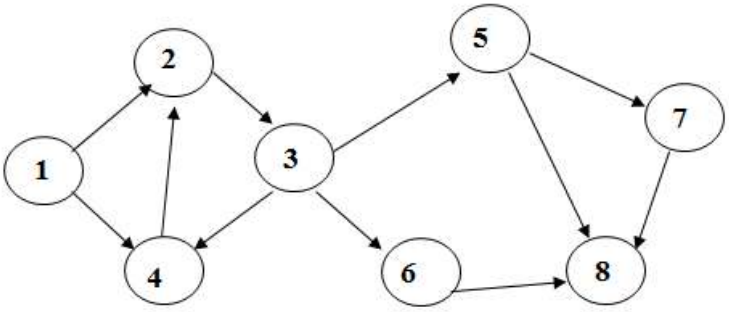
Practical Examination (From 2023-2024)

SUBJECT: CS-505-MJP: Lab Course on CS-502-MJ (Artificial Intelligence)

Time: 3 Hours **Max. Marks: 35**

Q.1) Write a python program to implement Lemmatization using NLTK **[10 Marks]**

Q.2) Write a Python program to implement Breadth First Search algorithm. Refer the following graph as an Input for the program.[Initial node=1,Goal node=8] **[20 Marks]**



Q.3) Viva **[5 Marks]**

---------- Slip 5 ----------

SAVITIBAI PHULE UNIVERSITY

M.Sc.(Computer Science) Sem-I

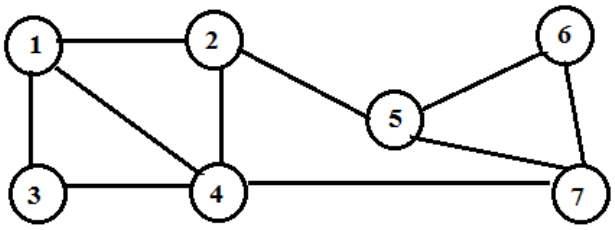
Practical Examination (From 2023-2024)

SUBJECT: CS-505-MJP: Lab Course on CS-502-MJ (Artificial Intelligence)

Time: 3 Hours **Max. Marks: 35**

Q.1) Write a python program to remove stop words for a given passage from a text file using NLTK?. **[10 Marks]**

Q.2) Write a Python program to implement Breadth First Search algorithm. Refer the following graph as an Input for the program.[Initial node=1,Goal node=8]. **[20Marks]**



Q.3) Viva **[5 Marks]**

---------- Slip 6 ----------

SAVITIBAI PHULE UNIVERSITY

M.Sc.(Computer Science) Sem-I

Practical Examination (From 2023-2024)

SUBJECT: CS-505-MJP: Lab Course on CS-502-MJ (Artificial Intelligence)

Time: 3 Hours **Max. Marks: 35**

Q.1) Write a python program implement tic-tac-toe using alpha beeta pruning**[10 Marks]**

Q.2) Write a Python program to implement Simple Chatbot. **[20Marks]**

Q.3) Viva **[5 Marks]**

---------- Slip 7 ----------

SAVITIBAI PHULE UNIVERSITY

M.Sc.(Computer Science) Sem-I

Practical Examination (From 2023-2024)

SUBJECT: CS-505-MJP: Lab Course on CS-502-MJ (Artificial Intelligence)

Time: 3 Hours **Max. Marks: 35**

Q.1) Write a Python program to accept a string. Find and print the number of upper case alphabets and lower case alphabets. **[10 Marks]**

Q.2) Write a Python program to solve tic-tac-toe problem. **[20 Marks]**

Q.3) Viva **[5 Marks]**

---------- Slip 8 ----------

SAVITIBAI PHULE UNIVERSITY

M.Sc.(Computer Science) Sem-I

Practical Examination (From 2023-2024)

SUBJECT: CS-505-MJP: Lab Course on CS-502-MJ (Artificial Intelligence)

Time: 3 Hours **Max. Marks: 35**

Q.1) Write python program to solve 8 puzzle problem using A* algorithm **[10 marks]**

Q.2) Write a Python program to solve water jug problem. 2 jugs with capacity 5 gallon and 7 gallon are given with unlimited water supply respectively. The target to achieve is 4 gallon of water in second jug. **[15 Marks]**

Q.3) Viva **[5 Marks]**

---------- Slip 9 ----------

SAVITIBAI PHULE UNIVERSITY

M.Sc.(Computer Science) Sem-I

Practical Examination (From 2023-2024)

SUBJECT: CS-505-MJP: Lab Course on CS-502-MJ (Artificial Intelligence)

Time: 3 Hours **Max. Marks: 35**

Q.1) Write Python program to implement crypt arithmetic problem
TWO+TWO=FOUR **[10 Marks]**

Q.2) Write a Python program to implement Simple Chatbot. **[20 Marks]**

Q.3) Viva **[5 Marks]**

SAVITIBAI PHULE UNIVERSITY

M.Sc.(Computer Science) Sem-I

Practical Examination (From 2023-2024)

SUBJECT: CS-505-MJP: Lab Course on CS-502-MJ (Artificial Intelligence)

Time: 3 Hours **Max. Marks: 35**

Q.1) Write a python program using mean end analysis algorithmproblem of transforming a string of lowercase letters into another string**.** **[10 Marks]**

Q.2) Write a Python program to solve water jug problem. Two jugs with capacity 4 gallon and 3 gallon are given with unlimited water supply respectively. The target is to achieve 2 gallon of water in second jug. **[20 Marks]**

Q.3) Viva **[5 Marks]**

---------- Slip 11 ----------

SAVITIBAI PHULE UNIVERSITY

M.Sc.(Computer Science) Sem-I

Practical Examination (From 2023-2024)

SUBJECT: CS-505-MJP: Lab Course on CS-502-MJ (Artificial Intelligence)

Time: 3 Hours **Max. Marks: 35**

Q.1) Write a python program to generate Calendar for the given month and year?. **[10Marks]**

Q.2) Write a Python program to simulate 4-Queens problem. **[20Marks]**

Q.3) Viva **[5 Marks]**

SAVITIBAI PHULE UNIVERSITY

M.Sc.(Computer Science) Sem-I

Practical Examination (From 2023-2024)

SUBJECT: CS-505-MJP: Lab Course on CS-502-MJ (Artificial Intelligence)

Time: 3 Hours **Max. Marks: 35**

Q.1 Write a Python program to implement Mini-Max Algorithm**.** **[10 Marks]**

Q.2) Write a Python program to simulate 8-Queens problem. **[20 Marks]**

Q.3) Viva **[5 Marks]**

SAVITIBAI PHULE UNIVERSITY

M.Sc.(Computer Science) Sem-I

Practical Examination (From 2023-2024)

SUBJECT: CS-505-MJP: Lab Course on CS-502-MJ (Artificial Intelligence)

Time: 3 Hours **Max. Marks: 35**

Q.1) Write a python program to sort the sentence in alphabetical order?

[10Marks]

Q.2) Write a Python program to simulate n-Queens problem. **[20Marks]**

Q.3) Viva **[5 Marks]**

---------- Slip 14 ----------

SAVITIBAI PHULE UNIVERSITY

M.Sc.(Computer Science) Sem-I

Practical Examination (From 2023-2024)

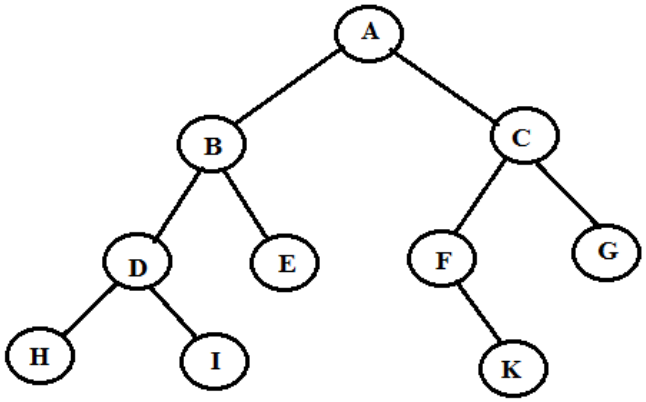
SUBJECT: CS-505-MJP: Lab Course on CS-502-MJ (Artificial Intelligence)

Time: 3 Hours **Max. Marks: 35**

Q.1)Write a Program to Implement Monkey Banana Problem using Python **[10 Marks]**

Q.2) Write a program to implement Iterative Deepening DFS algorithm. **[20 Marks]**

[Goal Node =G]



Q.3) Viva **[5 Marks]**

SAVITIBAI PHULE UNIVERSITY

M.Sc.(Computer Science) Sem-I

Practical Examination (From 2023-2024)

SUBJECT: CS-505-MJP: Lab Course on CS-502-MJ (Artificial Intelligence)

Time: 3 Hours **Max. Marks: 35**

Q.1) Write a Program to Implement Tower of Hanoi using Python **[10 Marks]**

Q.2) Write a Python program to solve tic-tac-toe problem. **[15 Marks]**

Q.3) Viva **[5 Marks]**

SAVITIBAI PHULE UNIVERSITY

M.Sc.(Computer Science) Sem-I

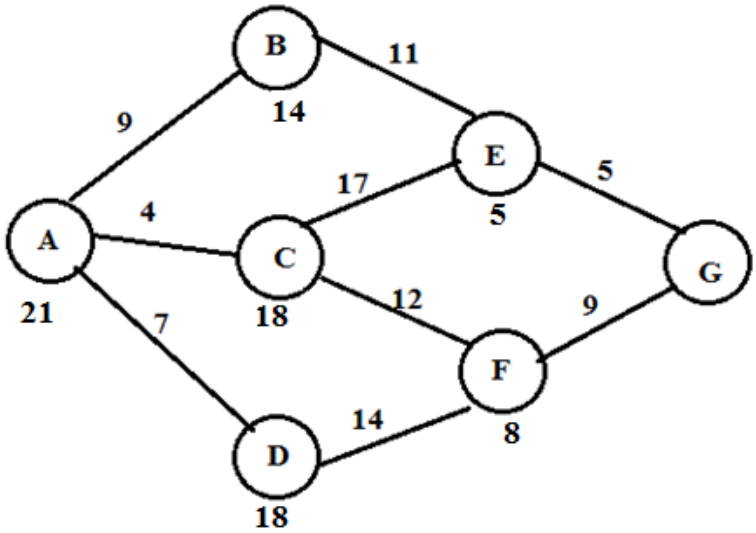
Practical Examination (From 2023-2024)

SUBJECT: CS-505-MJP: Lab Course on CS-502-MJ (Artificial Intelligence)

Time: 3 Hours **Max. Marks: 35**

Q.1) Python program that demonstrates the hill climbing algorithm to find the maximum of a mathematical function. **[10Marks]**

Q.2) Write a Python program to implement A* algorithm. Refer the following graph as an Input for the program.[Start vertex is A and Goal Vertex is G] **[20 Marks]**



Q.3) Viva **[5 Marks]**

SAVITIBAI PHULE UNIVERSITY

M.Sc.(Computer Science) Sem-I

Practical Examination (From 2023-2024)

SUBJECT: CS-505-MJP: Lab Course on CS-502-MJ (Artificial Intelligence)

Time: 3 Hours **Max. Marks: 35**

Q.1).Write a python program to remove stop words for a given passage from a text file using NLTK?. **[10Marks]**

Q.2) Implement a system that performs arrangement of some set of objects in a room. Assume that you have only 5 rectangular, 4 square-shaped objects. Use A* approach for the placement of the objects in room for efficient space utilisation. Assume suitable heuristic, and dimensions of objects and rooms. (Informed Search) **[20 Marks]**

Q.3) Viva **[5 Marks]**

SAVITIBAI PHULE UNIVERSITY

M.Sc.(Computer Science) Sem-I

Practical Examination (From 2023-2024)

SUBJECT: CS-505-MJP: Lab Course on CS-502-MJ (Artificial Intelligence)

Time: 3 Hours **Max. Marks: 35**

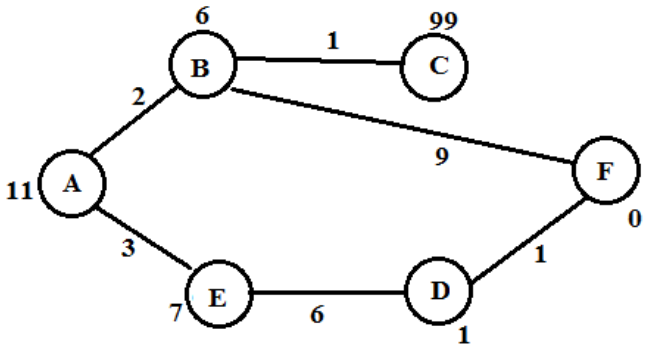
Q.1) Write a program to implement Hangman game using python.

Description:

Hangman is a classic word-guessing game. The user should guess the word correctly by entering alphabets of the user choice. The Program will get input as single alphabet from the user and it will matchmaking with the alphabets in the original word.

[10 Marks]

Q.2) Write a Python program to implement A* algorithm. Refer the following graph as an Input for the program. **[20 Marks]**



Q.3) Viva **[5 Marks]**

SAVITIBAI PHULE UNIVERSITY

M.Sc.(Computer Science) Sem-I

Practical Examination (From 2023-2024)

SUBJECT: CS-505-MJP: Lab Course on CS-502-MJ (Artificial Intelligence)

Time: 3 Hours **Max. Marks: 35**

Q.1) Build a bot which provides all the information related to you in college **[10Marks]**

Q.2) Write a Python program to implement Mini-Max Algorithm. **[20Marks]**

Q.3) Viva **[5 Marks]**

---------- Slip 20 ----------

SAVITIBAI PHULE UNIVERSITY

M.Sc.(Computer Science) Sem-I

Practical Examination (From 2023-2024)

SUBJECT: CS-505-MJP: Lab Course on CS-502-MJ (Artificial Intelligence)

Time: 3 Hours **Max. Marks: 35**

Q.1) Write a python program to remove punctuations from the given string?**[10 Marks]**

Q.2) Write a Python program for the following Cryptarithmetic problems. **[20 Marks]**

GO + TO = OUT

Q.3) Viva **[5 Marks]**

SAVITIBAI PHULE UNIVERSITY

M.Sc.(Computer Science) Sem-I

Practical Examination (From 2023-2024)

SUBJECT: CS-505-MJP: Lab Course on CS-502-MJ (Artificial Intelligence)

Time: 3 Hours **Max. Marks: 35**

Q.1) Write a Program to Implement Alpha-Beta Pruning using Python [10 **Marks]**

Q.2) Write a Python program to implement Simple Chatbot**[20 Marks]**

Q.3) Viva **[5 Marks]**

SAVITIBAI PHULE UNIVERSITY

M.Sc.(Computer Science) Sem-I

Practical Examination (From 2023-2024)

SUBJECT: CS-505-MJP: Lab Course on CS-502-MJ (Artificial Intelligence)

Time: 3 Hours **Max. Marks: 35**

Q.1) Write a Program to Implement Tower of Hanoi using Python. **[10 Marks]**

Q.2) Write a Python program for the following Cryptarithmetic problems

SEND + MORE = MONEY **[20Marks]**

Q.3) Viva **[5 Marks]**

---------- Slip 23 ----------

SAVITIBAI PHULE UNIVERSITY

M.Sc.(Computer Science) Sem-I

Practical Examination (From 2023-2024)

SUBJECT: CS-505-MJP: Lab Course on CS-502-MJ (Artificial Intelligence)

Time: 3 Hours **Max. Marks: 35**

Q.1) Write a python program to sort the sentence in alphabetical order?

[10 Marks]

Q.2) Write a Python program for the following Cryptorithmetic problems

CROSS+ROADS = DANGER **[20Marks]**

Q.3) Viva **[5 Marks]**

SAVITIBAI PHULE UNIVERSITY

M.Sc.(Computer Science) Sem-I

Practical Examination (From 2023-2024)

SUBJECT: CS-505-MJP: Lab Course on CS-502-MJ (Artificial Intelligence)

Time: 3 Hours **Max. Marks: 35**

Q.1). Build a bot which provides all the information related to you in college [**10 Marks]**

Q.2) Write a Python program to solve 8-puzzle problem. **[20 Marks]**

Q.3) Viva **[5 Marks]**

---------- Slip 25 ----------