**AI LAB LIST FOR EXAM 2022 (Dept. of CSE/Affiliated Colleges)**

**Course Code: CSE 4212 Course Title: Artificial Intelligence**

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| EXP 1 | Write a Turbo Prolog program to count number of elements from a list and also find out the largest value from the list. |
| EXP 2 | Write a Turbo Prolog program to find nth element from a list and reverse the list. |
| EXP 3 | Write a Turbo Prolog program to count number of elements from a list and also find out the smallest value from the list. |
| EXP 4 | Write the following Turbo Prolog program. (if this program has any mistakes then correct it) :-  domains  name, password=symbol  predicates  getinput (name, password)  logon  user(name, password)  clauses  logon:-  clearwindow,  getinput(Name, Password),  user(Name, Password),  write(" You are now logged on."),nl.  logon:-  write("Sorry, you are not permitted access."),nl.  write(" Please enter your name: "),  logon.  getinput(Name, Password):-  write(" Please enter your name: "),  readln(Name),nl,  write("Please enter your password: "),  readln(Password),nl.  user(john,superman).  user(sue,happy).  user(bill,bigfoot).  Rewrite above the logon example so that the user can attempt entry three times. After three attempts, the program should terminate with a message indicating that the user is not permitted to access. |
| EXP 5 | Write a program to find out the goal using Best-First Search (BFS) algorithm. |
| EXP 6 | Write a program to find out the goal using Depth-first search (DFS) algorithm. |
| EXP 7 | Write a program to solve 8-puzzle problem using Best First Search (BFS). |
| EXP 8 | Write a program to find out English Uppercase or Lowercase alphabets or numbers (0-9) using Backpropagation neural network algorithm/ Convolutional Neural Network algorithm. (Use Python code/ (C/C++)/ Java) |
| EXP 9 | /\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  Build a feed-forward neural network with an input layer which can accept m-by-n sized image data, ‘h’ number of fully connected hidden layers for classifying ‘c’ number of classes. Say, m =28,n = 28,h = 4 and c = 10. Use Tensorflow and Python. |
| EXP 10 | Build a convolutional neural network with an input layer which can accept m-by-n sized image data, ‘h’ number of convlutional hidden layers for classifying ‘c’ number of classes. Say, m =28,n = 28,h = 4 and c = 10. Use Tensorflow and Python. |
| EXP 11 | Using available modules of Tensorflow write a python program to train and test a convolutional neural network for binary classification. |
| EXP 12 | Using available modules of Tensorflow write a python program to re-train and test a pre-trained model (say, VGG16) for binary classification. |