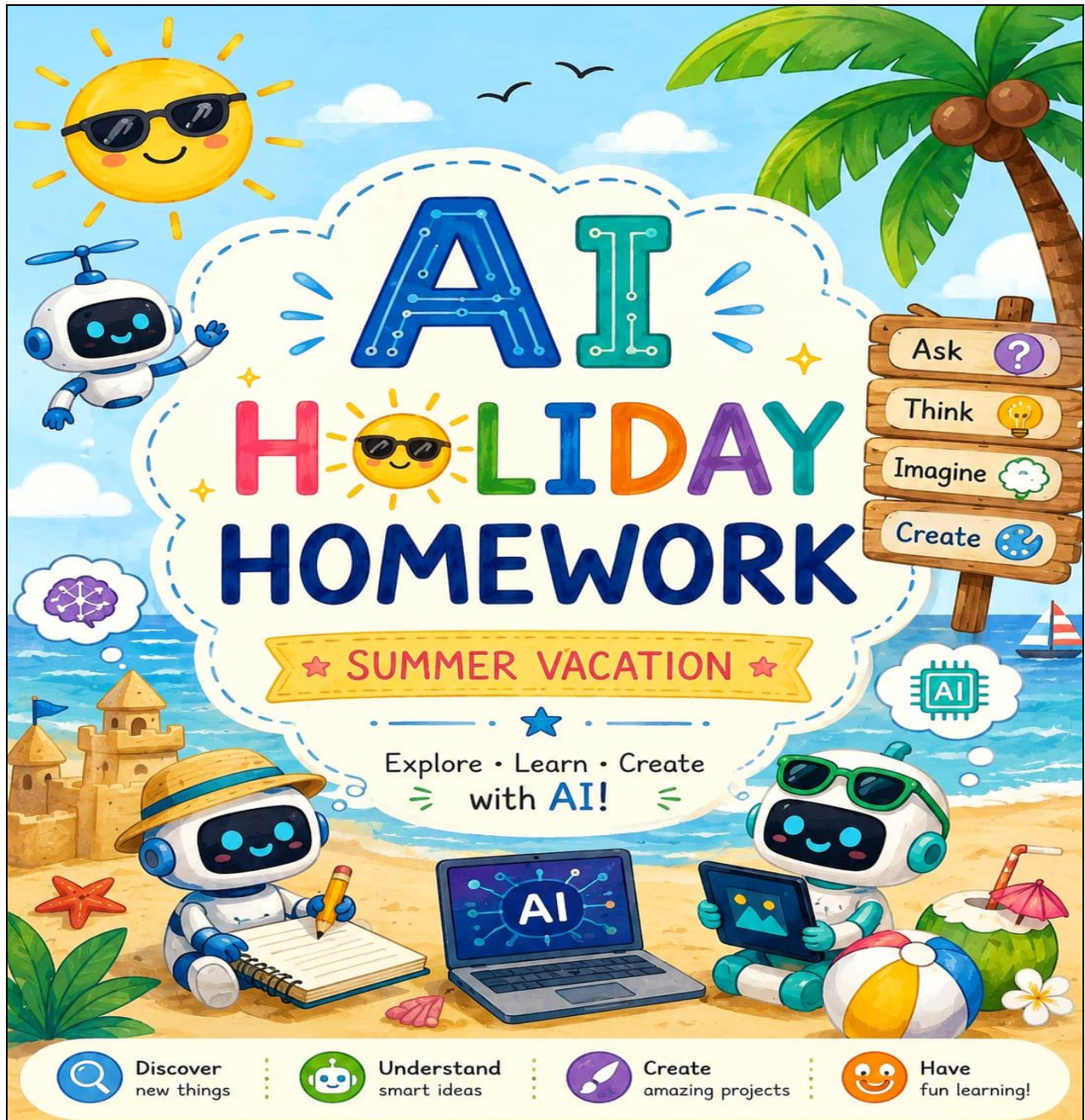


GREENFIELD PUBLIC SCHOOL, DILSHAD GARDEN

Class X – Artificial Intelligence Holiday Homework (2026–27)



1. Chart / Poster Work -

Make a colorful Chart/Poster on stages in AI Project Cycle. Explain Each stage with example.

Use chart paper and draw/ paste images.

OR

AI Tools Research Work -

Collect information about any 3 AI tools –

Example –

- Open AI
- Chat GPT
- Google / Notebook LM

Write its Founder, Main use, Advantages, Interesting Facts, Real life examples.

Collect images related to the topic you choose and Use Colorful Charts.

2. Assignment work –

Take out a printout, complete the assignment given below and paste in your Assignment Register.

3. Project Work-

Prepare a project on the Orange Data Mining tools demonstrating the use of data analysis and machine learning techniques. Topic – Student Performance Analysis.

- Predict students' marks or grades
- Dataset: attendance, study hours, test scores, etc.

Project file including –

1. Cover Page
2. Index
3. Introduction
4. Objective of the Project
5. Tools and Technologies Used
6. Dataset Information
7. Orange Workflow
8. Working Process
9. Data Visualization
10. Machine Learning Model
11. Result and Observation
12. Advantages / Limitations
13. Future Improvement
14. Conclusion

15. Thank You

Reference: https://www.slideshare.net/slideshow/improved_orange_data_mining_project_presentation-pptx/287583852

Assignment 1 (CH-Self Management)

A. Tick (✓) the correct option. (Objective Type)

1. What makes you complete work or studies without others cheering you?
 - a. Self-confidence
 - b. Communication
 - c. Self-motivation
 - d. Self-esteem
2. Sneha works hard to get the best speaker award in the school annual day event. What type of motivation is this?
 - a. Internal
 - b. External
 - c. Virtual
 - d. Both a. and b.
3. What is intrinsic motivation?
 - a. Doing gardening
 - b. Reading books
 - c. Cooking in the kitchen
 - d. All of these
4. What is important for building self-motivation?
 - a. Finding your faults
 - b. Copying others
 - c. Focus on goals
 - d. Take it easy
5. Ravi works hard to get the best student award at the end of year. What type of motivation is this?
 - a. Internal
 - b. External
 - c. Virtual
 - d. Both a. and b.

B. Fill in the blanks.

1. _____ is a short-term or long-term response of the body.
2. Another word for good stress is _____.
3. Stress causing agent related to money or unplanned saving is named as _____.
4. _____ relax the body and energise it at the same time.
5. Weakness is a _____ trait that brings unhappiness.
6. Your _____ and _____ will help you prioritise your activities.
7. _____, _____ and _____ are the qualities to work independently.
8. _____ help you manage your own time, priorities, and resources to get the work completed.

C. Short answer type questions. (Subjective Type)

1. What do you mean by Goal Setting?
2. Explain the ABC of stress management.
3. List five symptoms of stress in our body.
4. What are the advantages of self-regulation?

D. Long answer type questions.

1. Sometimes stress can be useful. Explain.
2. List your favourite stress management technique and elaborate why you find it the most effective.
3. What is the difference between Interest and Ability?
4. What is time management and how can you manage your time?
5. How can tracking your time help you?

Assignment 2
(CH-Advanced Concepts of Modelling in AI)

- A. Tick (✓) the correct option.
1. What does Reinforcement Learning aim to maximize?
 - a. Prediction accuracy
 - b. Clustering efficiency
 - c. Cumulative rewards
 - d. Data patterns

 2. Which algorithm is primarily used in image-related tasks like facial recognition?
 - a. Regression
 - b. ANN
 - c. CNN
 - d. Classification

 3. Artificial neural networks are inspired by the structure and function of:
 - a. The human brain
 - b. Quantum computers
 - c. Complex mathematical models
 - d. High-speed processors

 4. Training a neural network often requires:
 - a. A small set of labelled data samples
 - b. A significant amount of data and computational resources
 - c. A specific set of programming instructions
 - d. A human expert to guide the learning process

 5. What does unsupervised learning primarily aim to achieve?
 - a. Predict specific labels for new data
 - b. Identify hidden patterns or clusters in the data
 - c. Replace rule-based systems entirely
 - d. Solve predefined problems using training data

B. Fill in the blanks.

1. The learning-based approach is typically used when the dataset is _____ and too random.
2. The goal of _____ learning is to find hidden patterns or clusters in the data.
3. Supervised learning models use a _____ dataset to train the machine.
4. Classification models work with _____ datasets, whereas regression models predict _____ values.
5. Neural Networks are able to extract data _____ automatically without needing the input of the programmer.
6. _____ are made up of layers of neurons, just like the human brain that consists of millions of neurons.
7. An _____ in its training phase is capable of learning by recognising patterns in data which is later used to generate the desired output.
8. The layer present in-between input and output layers is called the _____ which perform most of the computations required by our network.

C. Short answer type questions. (Subjective Type Questions)

1. What is the primary difference between Clustering and Classification?
2. Explain the term Convolutional Neural Networks (CNN).
3. What do you mean by a Testing Dataset?
4. Name any four real-world applications of Neural Network

D. Long answer type questions.

1. Explain the three basic layers of Artificial Neural Network.
2. Explain any four applications of machine learning in our daily lives.
3. Differentiate between supervised and unsupervised learning models.
4. Explain the term association rule with the help of an example.
5. What is regression? Give an example.