

CBSE CLASS X

Artificial Intelligence (417)

QUESTION PAPER

From previous CBSE Board Exam questions

Code: AJEPEQ

Questions: 34

Maximum Marks: 65

Generated: 2026-06-21 02:53

SELECTIONS USED

Source	Previous-year board
Subject	Artificial Intelligence
Lessons	Revisiting AI Project Cycle & Ethical Frameworks for AI
Year	2022-2026
Questions selected	34

Composition — Types: 22 MCQ · 8 Long · 7 Short · 1 Assertion–reason · 1 fill_in_blank

Q1. § Types of Ethical Frameworks

[2]

Explain the difference between sector-based and value-based ethical frameworks with one example of each.

Previously asked in: 2026 104 Q11

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.3 Ethical Frameworks for AI

Q2. § Bioethics

[1]

Assertion (A) : Bioethics is an example of a Value-based Framework for AI.

Reason (R) : Bioethics deals with ethical issues related to health, medicine, and biological sciences.

- (A) Both (A) and (R) are true and (R) is the correct explanation of (A).
- (B) Both (A) and (R) are true, but (R) is not the correct explanation of (A).
- (C) (A) is true, but (R) is false.
- (D) (A) is false, but (R) is true.

Previously asked in: 2026 104 Q4 (ii)

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.3 Ethical Frameworks for AI

Q3. § Unit Overview § 1.3: Ethical Frameworks for AI § Reflection Time

[1]

As AI is essentially being used as a decision making / influencing tool, we need to ensure that AI makes morally acceptable recommendations. Which of the following is a key factor that can knowingly or unknowingly influences our decision-making while designing an AI model ?

- (A) Intuition and Values
- (B) Algorithm efficiency
- (C) Data storage capacity
- (D) Processing speed

Previously asked in: 2026 104 Q3 (iv)

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.3 Ethical Frameworks for AI

Q4. § Unit Overview § Test Yourself

[1]

Which stage of the AI Project Cycle involves testing the model on newly fetched data ?

- (A) Data Exploration
- (B) Modelling
- (C) Evaluation
- (D) Deployment

Previously asked in: 2026 104 Q2 (vi)

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.1 AI Project Cycle

Q5. § 1.3: Ethical Frameworks for AI § Types of Ethical Frameworks

[1]

Ethical frameworks are primarily designed to:

- (A) Increase the efficiency of AI algorithms.
- (B) Ensure that choices made do not cause unintended harm.
- (C) Reduce the cost of AI development.
- (D) Speed up the AI project cycle.

Previously asked in: 2026 104 Q2 (iii)

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.3 Ethical Frameworks for AI

Q6. § Test Yourself

[4]

With respect to scoping a problem in AI Project Cycle, explain 4 Ws Problem Canvas in detail.

Previously asked in: 2025 104/S Q17

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.1 AI Project Cycle

Q7. § Unit Overview § Case Study § Reflection Time

[1]

Which of the following statements is true about AI Bias?

- (A) It is always negative.
- (B) It leads to overfitting of training data.
- (C) It can result in unfair and discriminatory outcomes.
- (D) A machine can have biases of its own.

Previously asked in: 2025 104/S Q5 (iv)

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.3 Ethical Frameworks for AI

Q8. § Unit Overview

[1]

Which of the following is the second stage of an AI Project Cycle?

- (A) Problem Scoping
- (B) Evaluation
- (C) Data Acquisition
- (D) Data Exploration

Previously asked in: 2025 104/S Q3 (i)

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.1 AI Project Cycle

Q9. § Test Yourself

[4]

What is the use of problem statement template with respect to 4Ws of problem scoping ? Draw a problem statement template depicting all key elements.

Previously asked in: 2024 104 Q18

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.1 AI Project Cycle

Q10. § Unit Overview § Case Study § Reflection Time**[4]**

What do you understand by AI Bias and AI Access ? Give one example of each to support your answer.

Previously asked in: 2024 104 Q17

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.3 Ethical Frameworks for AI

Q11. § Unit Overview § Test Yourself § Reflection Time**[2]**

Define the following with respect to AI project cycle :

(i) Data Exploration

(ii) Data Features

Previously asked in: 2024 104 Q12

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.1 AI Project Cycle

Q12. § Test Yourself § Reflection Time § Case-Based Questions**[1]**

Statement 1 : In "When" block of 4Ws canvas we find the stakeholders.

Statement 2 : Stakeholders are the people who face a particular problem and would be benefitted with the solution.

(A) Both Statement 1 and Statement 2 are correct.

(B) Both Statement 1 and Statement 2 are incorrect.

(C) Statement 1 is correct but Statement 2 is incorrect.

(D) Statement 2 is correct but Statement 1 is incorrect.

(A) Both Statement 1 and Statement 2 are correct.

(B) Both Statement 1 and Statement 2 are incorrect.

(C) Statement 1 is correct but Statement 2 is incorrect.

(D) Statement 2 is correct but Statement 1 is incorrect.

Previously asked in: 2024 104 Q2 (iii)

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.1 AI Project Cycle

Q13. § Test Yourself**[1]**

The 4 W's Problem Canvas helps in identifying the key elements related to the given problem. Which of the following is NOT one of the blocks of the Problem Canvas ?

(a) When

(b) Where

(c) What

(d) Why

Previously asked in: 2024 104 Q5 (v)

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.1 AI Project Cycle

Q14. § Unit Overview § Test Yourself § Reflection Time**[1]**

In the AI project cycle, which of the following represents the correct order of steps ?

(a) Data Exploration, Problem Scoping, Modelling, Evaluation, Data Acquisition.

(b) Problem Scoping, Data Acquisition, Data Exploration, Modelling, Evaluation.

(c) Modelling, Data Acquisition, Evaluation, Problem Scoping, Data Exploration.

(d) Data Acquisition, Data Exploration, Problem Scoping, Modelling, Evaluation.

Previously asked in: 2024 104 Q3 (ii)

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.1 AI Project Cycle

Q15. § Unit Overview § Test Yourself § Reflection Time**[1]**

Which of the following contributes to the efficiency of an AI project ?

- (a) High Model Complexity
- (b) Relevant and Authentic Training Data
- (c) Minimal Preprocessing
- (d) Limited Hardware Resources

Previously asked in: 2024 104 Q2 (i)

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.1 AI Project Cycle

Q16. § Unit Overview § 1.2: Introduction to AI Domains § Case Study**[2]**

Explain any one example of AI bias.

Previously asked in: 2023 104 Q11

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.3 Ethical Frameworks for AI

Q17.**[1]**

4Ws Problem Canvas is a part of:

- (a) Problem Scoping
- (b) Data Acquisition
- (c) Modelling
- (d) Evaluation

Previously asked in: 2023 104 Q5 (iv)

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.1 AI Project Cycle

Q18. § Unit Overview § Case Study § Reflection Time**[1]**

Under _____, one looks at various parameters which affect the problem we wish to solve, as this would make many lives better.

Previously asked in: 2023 104 Q4 (v)

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.1 AI Project Cycle

Q19. § 1.2: Introduction to AI Domains**[1]**

During Data Acquisition, feeding previous data into the machine is called:

- (a) Training Data
- (b) Predicting Data
- (c) Testing Data
- (d) Evaluating Data

Previously asked in: 2023 104 Q2 (iv)

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.1 AI Project Cycle

Q20. § Unit Overview § 1.2: Introduction to AI Domains § Case Study**[1]**

Whenever we want an AI project to be able to predict an output, we need to _____.

- (A) first test it using the data.
- (B) first train it using the data.
- (C) Both (A) and (B)
- (D) Neither (A) nor (B)

Previously asked in: 2024 104 Q2 (iv)

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.1 AI Project Cycle

Q21. § 1.2: Introduction to AI Domains § Test Yourself**[2]**

Differentiate between Data Acquisition and Data Exploration.

Previously asked in: 2025 104/S Q13

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

Data Acquisition vs Data Exploration

Q22. § 1.2: Introduction to AI Domains § Test Yourself § Reflection Time**[2]**

What role does data play in AI based applications ? Name any two sources of online data collection for building any AI based application.

Previously asked in: 2024 104 Q15

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.1 AI Project Cycle

Sources of Online Data Collection for AI Applications

Q23. § Unit Overview § Test Yourself § Reflection Time**[4]**

What is the significance of AI project cycle? Also explain in detail about how Data Acquisition is different from data exploration.

Previously asked in: 2023 104 Q18

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.1 AI Project Cycle

Data Acquisition vs Data Exploration

Q24. § Unit Overview**[2]**

What is the purpose of Evaluation stage of AI project cycle? Discuss briefly.

Previously asked in: 2022 104 Q14

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.1 AI Project Cycle

3.1 Importance of Model Evaluation

Q25. § 1.2: Introduction to AI Domains**[1]**

Raghav can turn on and off any appliance remotely using an internet enabled device. This is an example of _____.

- (A) Artificial Intelligence (AI)
- (B) Internet of Things (IoT)
- (C) Computer Vision (CV)
- (D) Deep Learning (DL)

Previously asked in: 2024 104 Q4 (vi)

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

Internet of Things (IoT) – Remote Control of Appliances via Internet-Enabled Devices

Q26.**[2]**

Differentiate between Kinesthetic Intelligence and Spatial Visual Intelligence.

Previously asked in: 2025 104/S Q11

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

Kinesthetic Intelligence vs Spatial Visual Intelligence

Q27. § Unit Overview § Test Yourself § Reflection Time**[4]**

Consider the following scenarios and identify which AI domain would be most appropriate for each, with justification:

- (A)** An AI based education platform needs to translate to English language and analyze thousands of student essays to provide instant feedback on grammar, content quality and writing style. [2]
- (B)** An AI based application installed on a busy crossing in a metropolitan city scans all vehicles driving through that crossing during peak traffic hours and categorizes them into four wheelers and two wheelers. [2]

Previously asked in: 2026 104 Q18

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.2 Introduction to AI Domains

6.2 Applications of NLP

Computer Vision Applications – Object Detection and Classification

Q28. § 1.2: Introduction to AI Domains**[1]**

Which AI domain would be most suitable for developing a price comparison website ?

- (A) Computer Vision
- (B) Natural Language Processing
- (C) Statistical Data
- (D) Robotics

Previously asked in: 2026 104 Q5 (i)

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.2 Introduction to AI Domains

Q29. § 1.2: Introduction to AI Domains § Test Yourself § Reflection Time**[4]**

Categorise the following examples under the given three AI domains — Data Science, NLP and Computer Vision with justification :

- (a) Recommendation Websites
- (b) Voice-based Virtual Assistants
- (c) Spam Filters
- (d) Airline Route Planning

Previously asked in: 2025 104/S Q20

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.2 Introduction to AI Domains

6.2 Applications of NLP

Q30. § Unit Overview § Test Yourself § Reflection Time**[1]**

_____ is the best example of Robotics and AI (Artificial Intelligence) working together.

- (A) Telephones
- (B) Self-driving cars
- (C) Bulb
- (D) Printing Machine

Previously asked in: 2025 104/S Q3 (iii)

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.2 Introduction to AI Domains

Q31. § 1.2: Introduction to AI Domains § Case Study § Reflection Time**[1]**

Which AI application involves analysing large sets of data to extract meaningful insights for decision-making?

- (A) Computer Vision
- (B) Robotics
- (C) Natural Language Processing (NLP)
- (D) Data Science

Previously asked in: 2025 104/S Q2 (ii)

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.2 Introduction to AI Domains

Q32. § Unit Overview § Reflection Time**[1]**

Identify the logo of an application of AI given below. It helps us to navigate to places.

Previously asked in: 2024 104 Q3 (i)

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.2 Introduction to AI Domains

Q33.**[1]**

Platforms such as Spotify, Facebook, Instagram, Amazon, Netflix etc. shows recommendation on the basis of what you like. Which is the technology behind this ?

- (A) Human Intelligence
- (B) Platform Intelligence
- (C) Artificial Intelligence
- (D) Application Intelligence

Previously asked in: 2024 104 Q2 (ii)

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.2 Introduction to AI Domains

Q34.

§ Unit Overview

§ Reflection Time

[4]

Give any four examples of applications of AI that we see around us.

Previously asked in: 2024 104 Q18

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.2 Introduction to AI Domains

Q35.

§ Unit Overview

§ Reflection Time

[4]

Will it be valid to say that not all the devices which are termed as "smart" are AI-enabled? Justify this statement. Explain any two examples from the daily life which are commonly misunderstood as AI.

Previously asked in: 2023 104 Q20

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.2 Introduction to AI Domains

2.1 Revisiting AI, ML, DL

Q36.

§ 1.2: Introduction to AI Domains

[1]

Identify the incorrect statements from the following:

- (i) AI models can be broadly categorized into four domains.
- (ii) Data sciences is one of the domain of AI model.
- (iii) Price comparison websites are examples of data science.
- (iv) The information extracted through data science can be used to make decision about it.

- (a) Only (iv)
- (b) (iii) and (iv)
- (c) Only (i)
- (d) (ii) and (iii)

Previously asked in: 2023 104 Q2 (iii)

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.2 Introduction to AI Domains

Q37.

§ Unit Overview

§ 1.2: Introduction to AI Domains

[1]

Which of the following represent a machine that is smart but not considered Artificial Intelligence (AI) enabled ?

- (a) A robotic vacuum cleaner that can navigate and clean floors autonomously.
- (b) A chatbot that engages in natural language conversations and answers questions.
- (c) A smartphone with facial recognition for unlocking the device.
- (d) A digital alarm clock that rings at a set time every morning.

Previously asked in: 2024 104 Q2 (iii)

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.2 Introduction to AI Domains

Q38. § 1.2: Introduction to AI Domains**[1]**

Which of the following represents an example of a recommendation system ?

- (a) An online clothing store that offers a wide variety of clothing options.
- (b) A search engine that retrieves relevant web pages based on user queries.
- (c) An e-commerce website that displays customer reviews and ratings for products.
- (d) A music streaming platform that suggests songs and playlists based on user listening history.

Previously asked in: 2024 104 Q4 (iv)

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.2 Introduction to AI Domains

Collaborative Filtering / Recommendation Systems

Q39. § Unit Overview § 1.2: Introduction to AI Domains**[1]**

_____ enables computers to mimic human intelligence.

- (A) Cloud Computing
- (B) Artificial Intelligence
- (C) Web Development
- (D) Data Entry

Previously asked in: 2025 104/S Q2 (i)

♦ Revisiting AI Project Cycle & Ethical Frameworks for AI

1.2 Introduction to AI Domains

Available for free from:

<https://cbsegrade10studyguide.com>

<https://github.com/orgs/cbse-free-resources/repositories>

Available for free from:

<https://cbsegrade10studyguide.com>

<https://github.com/orgs/cbse-free-resources/repositories>