SUNBEAM WORLD SCHOOL

CBSE CLASS X | ACADEMIC SESSION 2026–27

PRACTICE QUESTION PAPER

Artificial Intelligence | Subject Code: 417

Time Allowed: 2 Hours Maximum Marks: 50

Original school practice paper. Check the latest CBSE curriculum and prescribed textbooks before final school release.

General Instructions

1. Read all instructions carefully before attempting the paper.

2. All questions are compulsory unless an internal choice is expressly given.

3. Write answers in the prescribed order and show working wherever required.

4. Marks are indicated against each question. Manage your time across sections.

5. This is an original Sunbeam World School practice paper, not an official CBSE question paper.

PART A – EMPLOYABILITY SKILLS (10 marks)

Q1. (1) Which is an example of non-verbal communication? A. Email B. Facial expression C. Report D. Phone text

Q2. (1) State one benefit of maintaining a daily study schedule.

Q3. (1) What does ICT stand for?

Q4. (1) An entrepreneur tests a product idea with potential users. Which activity is this?

Q5. (1) Give one example of a green skill.

Q6. (2) Explain two ways to manage stress before an examination.

Q7. (2) State two precautions for protecting personal data online.

PART B – ARTIFICIAL INTELLIGENCE (40 marks)

Q20. (1) Which stage of the AI project cycle involves understanding stakeholders and defining the problem? A. Problem scoping B. Modelling C. Evaluation D. Deployment

Q21. (1) Which of the following is labelled data? A. Uncategorised photos B. Photos tagged as healthy/diseased C. Random pixels D. Unsorted audio

Q22. (1) What does a model learn during training?

Q23. (1) Which metric is especially useful when missing a positive case is costly? A. Recall B. File size C. Latency D. Resolution

Q24. (1) In computer vision, image pixels are commonly represented as: A. numerical values B. paragraphs C. sound waves D. hyperlinks

Q25. (1) Which NLP task assigns a sentiment such as positive, negative or neutral to text?

Q26. (1) What is overfitting?

Q27. (1) Name one method for making AI systems more transparent to users.

Q16. (1) Which stage of the AI project cycle defines the problem and goal? A. Data exploration B. Problem scoping C. Modelling D. Evaluation

Q17. (1) Which is an example of unstructured data? A. Spreadsheet table B. Audio recording C. Relational table D. CSV rows

Q18. (1) In supervised learning, training data contains: A. no labels B. input data with known labels/targets C. only images D. only rules

Q19. (1) Which metric is calculated as correct predictions divided by total predictions? A. Recall B. Accuracy C. Precision D. F1 only

Q20. (1) What is bias in an AI system?

Q21. (1) Name the AI domain that enables machines to interpret images and video.

Q22. (1) What does NLP stand for?

Q23. (1) In a confusion matrix, a false positive is a case where the model: A. predicts positive incorrectly B. predicts negative correctly C. predicts positive correctly D. has no output

Q24. (1) Which learning approach finds patterns in unlabelled data? A. Supervised B. Unsupervised C. Reinforcement only D. Manual coding

Q25. (1) Name one way to reduce bias in an AI dataset.

Q26. (1) What is tokenisation in NLP?

Q27. (1) What is the purpose of a validation dataset?

Q28. (2) Differentiate between classification and regression with one example each.

Q29. (2) Explain precision and recall in the context of a model detecting unsafe images.

Q30. (2) State two ethical concerns when using facial recognition in a school.

Q31. (2) Explain why training and test data should be separate.

Q32. (4) A school develops an AI model to identify plant diseases from leaf photographs. Describe (a) problem scoping, (b) data acquisition, (c) one preprocessing step and (d) one ethical/safety consideration.

Q33. (4) A classifier produced 80 correct predictions out of 100. It flagged 30 cases as positive, of which 24 were truly positive. Calculate accuracy and precision, showing working, and explain one limitation of relying only on accuracy.

Q34. (4) A school chatbot answers student questions using natural language. Explain the role of tokenisation, intent recognition, entity extraction and human escalation.