CBSE Class 10 Artificial Intelligence (AI)

Unit-wise syllabus and marks for the 2026-27 session.

UNITS	SESSION
13	2026-27

Exam pattern. Total 100 marks: Theory 50 + Practical 50. Theory written paper of 2 hours = Part A Employability Skills (10 marks) + Part B Subject-Specific Skills (40 marks). Practical (50 marks) = Practical file/programs (15) + Practical examination (15) + Viva voce (5) + Project work/portfolio (10) + Project viva voce (5).

Practical. Hands-on practical component worth 50 marks. Students maintain a practical file with a minimum of 15 Python programs, sit a practical examination and viva voce, and complete a project (project work, field visit or portfolio) with a related viva. Practical work spans Python programming, data science, Computer Vision (OpenCV) and NLP tasks.

#	UNIT AND TOPICS	MARKS
1	**Part A: Communication Skills-II** Methods and importance of communication; Verbal, non-verbal and visual communication; Communication cycle and feedback; Barriers to effective communication; Writing skills and basic English grammar	–
2	**Part A: Self-Management Skills-II** Stress management techniques; Self-awareness and self-motivation; Building self-confidence; Goal setting and time management; Working independently	–
3	**Part A: ICT Skills-II** Operating systems basics; Basic file and folder management; Computer care and maintenance; Antivirus and data security; Productivity tools overview	–
4	**Part A: Entrepreneurial Skills-II** Entrepreneurship and society; Qualities and functions of an entrepreneur; Types of business activities; Myths about entrepreneurship; Entrepreneurship as a career option	–
5	**Part A: Green Skills-II** Importance of green jobs; Sustainable development; Conservation of resources; Reducing environmental impact; Role of green economy	–
6	**Part B Unit 1: Revisiting AI Project Cycle & Ethical Frameworks for AI**	–

#	UNIT AND TOPICS	MARKS
	Recap of AI domains and the AI Project Cycle; Problem Scoping, Data Acquisition, Data Exploration, Modelling, Evaluation; AI ethics: bias, data privacy and access; Ethical frameworks and principles for AI; AI and its societal challenges (e.g. self-driving cars)	
7	**Part B Unit 2: Advanced Concepts of Modelling in AI** Rule-based vs learning-based AI approaches; Supervised, unsupervised and reinforcement learning; Classification and regression; Decision trees; Introduction to neural networks and deep learning	–
8	**Part B Unit 3: Evaluating Models** Need for model evaluation; Confusion matrix; Accuracy, Precision, Recall; F1 Score; Interpreting evaluation results	–
9	**Part B Unit 4: Statistical Data / Data Sciences** Introduction to Data Sciences; Basic statistics: mean, median, mode; Data collection, features and labels; Data visualisation; K-Nearest Neighbours (KNN) algorithm	–
10	**Part B Unit 5: Computer Vision** Concept of computer vision and applications; Pixels, resolution and image features; Image processing with OpenCV; Convolution and feature extraction; Convolutional Neural Networks (CNN)	–
11	**Part B Unit 6: Natural Language Processing** Introduction to NLP and applications; Chatbots; Text normalisation and tokenisation; Bag of Words model; TF-IDF and its applications	–
12	**Part B Unit 7: Advance Python** Python environment setup and Jupyter Notebooks; Recap of Python basics and data types; Lists, tuples and dictionaries; NumPy arrays; Working with Pandas and Matplotlib for data	–
13	**Part C: Practical Work** Practical file with a minimum of 15 Python programs; Practical examination; Viva voce; Project work / field visit / portfolio; Project-related viva voce	–

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