CBSE Class 11 Artificial Intelligence (AI)

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

UNITS	SESSION
9	2026-27

Exam pattern. Total 100 marks: Theory 50 marks + Practical 50 marks. Theory paper covers Part A (Employability Skills, 10 marks) and Part B (Subject-Specific Skills, 40 marks). Practical 50 marks = Practical File (10) + Written Exam based on practical file (10) + Viva Voce (6) + Capstone Project (12) + IBM SkillsBuild/industry certification (5) + Bootcamp/Internship (7).

Practical. Practical work includes a Practical File with at least one activity from each unit, one IBM SkillsBuild (or other industry) certification, and a bootcamp/internship participation certificate. Activities include Python programs for statistics and visualization, demonstrations of Linear Regression, k-NN, and k-Means, Pearson correlation in Excel, and building an ice-cream ordering chatbot. A Capstone Project (problem definition, users, brainstorming, and design completed in the IBM Log Book) is a major component, assessed alongside a written exam and viva voce.

#	UNIT AND TOPICS	MARKS
1	**Part A, Employability Skills** Unit 1: Communication Skills III; Unit 2: Self-Management Skills III; Unit 3: ICT Skills III (Basic Information and Communication Technology Skills); Unit 4: Entrepreneurial Skills III; Unit 5: Green Skills III	–
2	**Unit 1: Introduction, Artificial Intelligence for Everyone** What is Artificial Intelligence?; Evolution of AI; Types of AI; Domains of AI (Data, Computer Vision, Natural Language Processing); AI Terminologies; Benefits and limitations of AI	–
3	**Unit 2: Unlocking Your Future in AI** The Global Demand for AI; Common Job Roles in AI; Essential Skills and Tools for Prospective AI Careers; Opportunities in AI across Various Industries	–
4	**Unit 3: Python Programming** Level 1: Basics of Python, character sets, tokens, modes, operators, data types; Level 1: Control statements (selective and iterative); Level 2: CSV files; Level 2: Libraries, NumPy; Level 2: Libraries, Pandas; Level 2: Libraries, Scikit-learn	–
5	**Unit 4: Introduction to Capstone Project** Design Thinking methodology; Empathy Map; Problem decomposition using the 5W1H method; Sustainable Development Goals (SDGs); Capstone Project (problem definition, users, brainstorming,	–

#	UNIT AND TOPICS	MARKS
	design)	
6	**Unit 5: Data Literacy, Data Collection to Data Analysis** What is Data Literacy?; Data Collection and Exploring Data; Statistical Analysis of data (mean, median, mode, standard deviation, variance); Representation and visualization of data with Python (Matplotlib); Introduction to Matrices and operations; Data Pre-processing; Data in Modelling and Evaluation	–
7	**Unit 6: Machine Learning Algorithms** Machine Learning in a nutshell and types of Machine Learning; Supervised Learning; Correlation, Regression and Linear Regression algorithm; Classification and k-Nearest Neighbour (k-NN) algorithm; Unsupervised Learning; Clustering and k-Means Clustering algorithm	–
8	**Unit 7: Leveraging Linguistics and Computer Science** Understanding Human Language Complexity; Introduction to Natural Language Processing (NLP); Emotion Detection, Sentiment Analysis and Classification Problems; Chatbots; Phases of NLP; Applications of NLP	–
9	**Unit 8: AI Ethics and Values** Ethics in Artificial Intelligence; The five pillars of AI Ethics; Bias, bias awareness and sources of bias; Mitigating Bias in AI Systems; Developing AI Policies; Moral Machine Game and Survival of the Best Fit Game	–

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