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SCO INTERNATIONAL OLYMPIAD

CLASS 6 AI OLYMPIAD
SAMPLE QUESTION PAPER

A PDF-ready assessment resource for students, teachers, schools, and parents

Designed from Class 6 AI literacy pathways and aligned with SCO's platform flow for guided preparation, practice, reporting, and responsible future-ready learning.

- age-fit AI literacy guidance for Grade 6 / upper-primary learners globally
- question pathways across AI, machine learning, data, patterns, privacy, ethics, and real-life applications
- preparation roadmap, school implementation ideas, and future-ready skill framing for responsible AI learning

AI	Machine Learning	Data	Patterns	Real-Life AI
Privacy	Ethics	Safety	Achievers	Practice

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SCO International Artificial Intelligence Olympiad - Class 6

Sample Question Paper

Field	Details
Exam Name	SCO International Artificial Intelligence Olympiad
Class / Grade	Class 6 / Grade 6
Question Paper Set	SAMPLE
Duration	60 minutes
Type of Exam	Objective Type / Multiple Choice Questions
Number of Questions	35 questions
Sections	4 sections: Understanding AI and Machine Learning; Data and Pattern Recognition; Real-Life AI Examples; Achievers Section

Guidelines for Students

- Read each question carefully before choosing an answer.
- There is only one correct answer for each question.
- Use the question paper for thinking and rough work; mark the final response on the answer sheet or online platform as instructed.
- Do not share personal data, passwords, or private photos while using any AI tool.
- AI should be used responsibly as a learning support, not as a replacement for understanding.

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Question Paper

Understanding AI and Machine Learning

Q.1 **A computer program learns to recognize photos of bicycles after studying many labeled bicycle and non-bicycle images. What is this called?**

Understanding AI and Machine Learning

A. Manual painting
B. Page printing
C. Machine learning
D. Battery charging

Answer: C

Explanation: The program learns from examples. This is machine learning.

Q.2 **Which sentence is true about AI?**

Understanding AI and Machine Learning

A. AI can help solve tasks, but it should be tested and used responsibly.
B. AI is always correct.
C. AI is the same as magic.
D. AI cannot use data.

Answer: A

Explanation: AI can be helpful, but it must be checked because it can make mistakes.

Q.3 **A teacher gives a model 100 solved examples before asking it to predict new answers. What is the purpose of the solved examples?**

Understanding AI and Machine Learning

A. Deleting memory
B. Turning off the screen
C. Making a game louder
D. Training the model

Answer: D

Explanation: Solved examples teach the model how inputs and outputs are related.

Q.4 **Which of the following is supervised learning?**

Understanding AI and Machine Learning

A. Grouping unlabeled songs by sound only
B. Learning from labeled pictures of apples and oranges
C. Randomly moving a mouse pointer
D. Changing a font color

Answer: B

Explanation: Labeled pictures provide the correct categories, so the learning is supervised.

Q.5 **Which of the following is unsupervised learning?**

Understanding AI and Machine Learning

A. Predicting pass/fail from labeled results
B. Checking spelling with a dictionary only
C. Grouping similar news articles without topic labels

D. Adding two numbers

Answer: C

Explanation: Unsupervised learning finds patterns or groups without labels.

Q.6 **Which step is usually most important before trusting an AI model?**

Understanding AI and Machine Learning

A. Changing the monitor color
B. Deleting the dataset
C. Ignoring all errors
D. Testing it on new examples

Answer: D

Explanation: Testing helps check whether the AI works beyond its training examples.

Q.7 **A model predicts "dog" for every animal picture, even when the picture is a cat. What does this show?**

Understanding AI and Machine Learning

A. The model is not performing well.
B. The model has perfect intelligence.
C. Labels are unnecessary.
D. The task is completed correctly.

Answer: A

Explanation: A model that predicts only one category is likely weak or trained on poor data.

Q.8 **Which choice best describes a "model" in AI?**

Understanding AI and Machine Learning

A. Only a plastic toy
B. A learned pattern used to make predictions
C. A keyboard shortcut
D. A screen saver

Answer: B

Explanation: In AI, a model is the learned pattern or rule system created from data.

Q.9 **Why should an AI system explain its answer when possible?**

Understanding AI and Machine Learning

A. It makes the computer heavier.
B. It removes all data.
C. It helps people understand and trust the decision.
D. It stops learning forever.

Answer: C

Explanation: Explanations improve transparency, trust, and responsible use.

Q.10 **Which is the best student behavior when AI gives an answer?**

Understanding AI and Machine Learning

A. Submit it without reading.
B. Use it to avoid studying.
C. Assume it is always true.
D. Review the answer and learn the reasoning.

Answer: D

Explanation: Responsible students verify AI answers and use them to learn.

Data and Pattern Recognition

Q.11 **Which item is a numerical data value?**

Data and Pattern Recognition

- **A.** 36 degrees Celsius
- **B.** Sunny
- **C.** Red
- **D.** Cat

Answer: A

Explanation: 36 degrees Celsius is a number and can be used as numerical data.

Q.12 **A dataset has ages written as 11, 12, “twelve”, and 13. What is the problem?**

Data and Pattern Recognition

- **A.** All values are impossible.
- **B.** The format is inconsistent.
- **C.** There is no data.
- **D.** All data is private.

Answer: B

Explanation: The same kind of value should use a consistent format. “twelve” should be standardized if numbers are required.

Q.13 **What is a label in supervised learning?**

Data and Pattern Recognition

- **A.** The color of the laptop
- **B.** The size of a notebook
- **C.** The correct answer or category attached to an example
- **D.** A random noise value

Answer: C

Explanation: A label tells the model the correct category or answer for an example.

Q.14 **A teacher uses a table of marks to find which topics need revision. What kind of activity is this?**

Data and Pattern Recognition

- **A.** Hardware repair
- **B.** Screen painting
- **C.** Data hiding
- **D.** Data analysis

Answer: D

Explanation: Data analysis means studying information to understand patterns and make decisions.

Q.15 **If a pattern is 3, 6, 12, 24, __, what is the next number?**

Data and Pattern Recognition

- **A.** 48
- **B.** 30

C. 42
D. 60

Answer: **A**

Explanation: Each number is multiplied by 2, so 24 x 2 = 48.

Q.16 **Why should duplicate records be removed from a dataset?**

Data and Pattern Recognition

A. Duplicates improve privacy automatically.
B. Duplicates can unfairly influence results.
C. Duplicates turn text into images.
D. Duplicates stop the need for labels.

Answer: **B**

Explanation: If one record is repeated many times, the model may give it too much importance.

Q.17 **Which is a good source of data for counting classroom attendance?**

Data and Pattern Recognition

A. Random movie names
B. Shoe colors only
C. Daily attendance records
D. Unlabeled cartoon drawings

Answer: **C**

Explanation: Attendance records directly relate to the task and provide useful data.

Q.18 **A model is trained on only winter weather data. It is then used in summer. What problem may occur?**

Data and Pattern Recognition

A. It will always be perfect.
B. It will become unsupervised.
C. It will delete the weather.
D. It may not generalize well.

Answer: **D**

Explanation: Data from one season may not represent another season, so performance may be weak.

Q.19 **Which action protects privacy while still allowing learning from data?**

Data and Pattern Recognition

A. Remove names and use anonymous IDs.
B. Publish full names online.
C. Share private messages.
D. Keep passwords in the dataset.

Answer: **A**

Explanation: Anonymization helps protect personal identities while preserving useful patterns.

Q.20 **What is one reason to split data into training and testing parts?**

Data and Pattern Recognition

A. To confuse the computer.
B. To check if the model works on examples it has not learned from directly.
C. To reduce all data to zero.

D. To avoid making predictions.

Answer: B

Explanation: Testing on unseen data helps measure real performance.

Real-Life AI Examples

Q.21 **Which device may use AI to understand spoken words?**

Real-Life AI Examples

A. Wooden ruler
B. Plain eraser
C. Smart speaker
D. Water bottle

Answer: C

Explanation: Smart speakers use speech recognition and language processing.

Q.22 **Which AI use can help road safety?**

Real-Life AI Examples

A. Detecting traffic signs from camera images
B. Hiding road signs
C. Guessing without data
D. Turning off all signals

Answer: A

Explanation: Computer vision can help detect road signs and objects for safety systems.

Q.23 **An AI app recommends easier practice when a student struggles. What is this called?**

Real-Life AI Examples

A. Manual printing
B. Random sorting
C. No learning
D. Personalized learning

Answer: D

Explanation: Personalized learning adapts to a student's needs.

Q.24 **Which AI application can help farmers?**

Real-Life AI Examples

A. Erasing field records
B. Predicting crop disease from leaf images
C. Mixing random seeds without plan
D. Using only guesses

Answer: B

Explanation: AI can analyze images and sensor data to support farming decisions.

Q.25 **A streaming app suggests cartoons based on watch history. What data does it likely use?**

Real-Life AI Examples

A. Only the phone color
B. A random dictionary page

C. Past viewing choices
D. Shoe size only

Answer: C

Explanation: Recommendation systems use past behavior to suggest new content.

Q.26 **Why should AI in healthcare avoid unfair bias?**

Real-Life AI Examples

A. Bias makes systems more correct.
B. Bias removes all mistakes.
C. Bias protects privacy automatically.
D. Different groups need safe and fair support.

Answer: D

Explanation: Fairness matters because healthcare decisions can affect people's well-being.

Q.27 **Which is a sign that an image may be AI-generated or edited?**

Real-Life AI Examples

A. Unnatural hands, text, or background details
B. A normal shadow
C. Correct spelling on a sign
D. A clear subject

Answer: A

Explanation: Deepfakes or edited images may show unusual visual mistakes, though checking sources is also important.

Q.28 **A school chatbot keeps logs of student questions. What should the school do?**

Real-Life AI Examples

A. Share all logs publicly.
B. Protect the logs and explain how they are used.
C. Keep private data forever.
D. Ignore consent.

Answer: B

Explanation: Conversation data should be stored safely, minimized, and used transparently.

Q.29 **Which AI tool may help the environment?**

Real-Life AI Examples

A. A machine that wastes energy intentionally
B. A paper that hides measurements
C. A system predicting air pollution from sensor data
D. A random number book

Answer: C

Explanation: AI can analyze sensor and weather data to support environmental monitoring.

Q.30 **What should a student do if an AI answer seems unsafe or confusing?**

Real-Life AI Examples

A. Follow it without thinking.
B. Share personal details to get more help.
C. Ignore safety rules.

D. Ask a teacher or trusted adult and verify it.

Answer: D

Explanation: Human guidance and verification are important, especially for safety-sensitive topics.

Achievers Section

Q.31 **A simple ML game asks players to label examples as "animal" or "vehicle." What is each label used for?**

Achievers Section

A. Teaching the model the correct category
B. Changing the screen brightness
C. Deleting the image
D. Making the game music louder

Answer: A

Explanation: Labels provide the correct category for supervised learning.

Q.32 **An AI quiz model gives 24 correct predictions out of 30. What is the accuracy?**

Achievers Section

A. 70%
B. 80%
C. 75%
D. 90%

Answer: B

Explanation: Accuracy = 24 / 30 = 0.8 = 80%.

Q.33 **A student collects classmates' favorite games and names. Which data should be removed before sharing the dataset publicly?**

Achievers Section

A. Total number of games chosen
B. General counts
C. Names
D. Anonymous categories

Answer: C

Explanation: Personal identifiers such as names should be removed before public sharing.

Q.34 **A deepfake video appears to show a principal making a strange announcement. What is the best first response?**

Achievers Section

A. Share quickly before checking.
B. Assume all videos are true.
C. Delete all school notices.
D. Verify from official school sources before believing or sharing.

Answer: D

Explanation: Deepfake risks require verification from trusted sources before sharing.

Q.35 **A chatbot trained only on one language struggles with other languages. What should be improved?**

Achievers Section

A. Dataset diversity

B. Screen size
C. Keyboard color
D. Page border

Answer: **A**

Explanation: A more diverse dataset can improve performance for different languages and users.

Answer Key

Question	Answer	Question	Answer	Question	Answer
1	C	13	C	25	C
2	A	14	D	26	D
3	D	15	A	27	A
4	B	16	B	28	B
5	C	17	C	29	C
6	D	18	D	30	D
7	A	19	A	31	A
8	B	20	B	32	B
9	C	21	C	33	C
10	D	22	A	34	D
11	A	23	D	35	A
12	B	24	B		

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Space for Rough Work