

## Science & Technology · GS - III

**Discuss the potential of Artificial Intelligence in transforming India's healthcare system. Examine the challenges associated with its adoption.**

**EXAM YEAR**

DAILY PRACTICE 23/10/2026

**PAPER**

GS - III

**SUBJECT**

Science &amp; Technology

**MARKS**

10

**WORD LIMIT**

~150 words

### Answer Hint

**Early diagnosis, diagnostic accuracy, affordable healthcare, rural access, data privacy, algorithmic bias, infrastructure, human oversight.**

### Model Answer

**Introduction:**

Artificial Intelligence (AI) is emerging as an important tool in healthcare, enabling faster analysis of medical data and supporting clinical decision-making.

**Potential of AI in Healthcare**

1. Early diagnosis: AI-assisted cardiac imaging can help detect heart abnormalities at an earlier stage.
2. Diagnostic efficiency: Automated image analysis can reduce reporting time and assist doctors in identifying patterns.
3. Accessibility: AI-enabled tools can support healthcare delivery in underserved and rural regions.
4. Personalised treatment: Patient data can help doctors make better-informed treatment decisions.

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**Challenges**

- Data privacy: Medical records require strong protection against misuse.
- Algorithmic bias: Inadequate or unrepresentative training data may produce inaccurate results.

- Infrastructure gaps: High costs and limited digital infrastructure can restrict adoption.
- Human oversight: AI recommendations require clinical validation and professional supervision.
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**Way Forward:**

India should strengthen medical-data governance, validate AI systems, train healthcare professionals and promote affordable deployment.

**Conclusion:**

AI can improve healthcare delivery when combined with reliable technology, ethical safeguards and human expertise.