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	PAPER	SUBJECT
DAILY PRACTICE 23/10/2026	GS - III	Science & Technology

MARKS	WORD LIMIT
10	~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.

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.

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