Science & Technology · GS - III

The growing use of Artificial Intelligence in medical diagnosis offers significant opportunities but also raises concerns regarding patient safety, accountability and data privacy. Discuss. Suggest measures to ensure the responsible use of AI in healthcare. (150 words, 10 marks)

EXAM YEAR	PAPER	SUBJECT
Daily Practice 09/10/2026	GS - III	Science & Technology

MARKS	WORD LIMIT
10	~150 words

Answer Hint

Answer Hint: Discuss AI's benefits in early diagnosis and efficiency, challenges of bias, errors, privacy and accountability, and solutions through human oversight, clinical validation, regulation and data protection.

Model Answer

Artificial Intelligence (AI) is transforming healthcare by enabling faster analysis of medical images, patient records and diagnostic data. However, excessive reliance on AI may compromise patient safety and clinical accountability.

Opportunities: AI can facilitate early disease detection, improve diagnostic efficiency, support clinical decision-making and expand access to healthcare in underserved regions. It can also reduce the workload of medical professionals.

Challenges: AI systems may produce incorrect predictions due to biased or incomplete training data. Overdependence may weaken independent clinical judgement. Furthermore, sensitive patient information faces privacy risks, while opaque algorithms can make accountability difficult when errors occur. Unequal access to technology may also widen healthcare disparities.

Way Forward: AI tools should undergo rigorous clinical validation, regular audits and bias assessments. Strong data-protection safeguards, transparent decision-making and clear accountability mechanisms are essential. Doctors must retain meaningful oversight, supported by appropriate training in AI technologies.

Conclusion: AI should complement medical expertise rather than replace it. A human-centred, ethical and adequately regulated approach can help harness AI's benefits while safeguarding patient safety and public trust.