UPSC Mains Questions 29 November 2025

Q1. ***India has recently revised its Earthquake Design Code (2025), placing the entire Himalayan arc under the highest-risk Zone VI. In this context, examine the geophysical basis of India's seismic vulnerability and evaluate India's institutional preparedness in mapping, monitoring and mitigating earthquake risks.***

(GS Paper 3 – Disaster Management)

Q2. ***"Excellence without ethics is a threat to society." Discuss this statement in the context of rising ethical deficits in India's educational and professional institutions. Suggest reforms to integrate value-based learning into mainstream education.***

(GS Paper 4 – Ethics & Integrity)

MODEL ANSWERs

📓 MODEL ANSWER 1 (GS-3)

Q. *India has revised its Earthquake Design Code (2025) placing the entire Himalayan arc under Zone VI. Examine the geophysical basis of India's seismic vulnerability and evaluate India's preparedness in mapping, monitoring and mitigating earthquake risks.*

🔹 Introduction

- India is among the world's six most earthquake-prone regions due to its location along an **active convergent plate boundary**.
- The revised **Earthquake Design Code 2025 (IS 1893)** acknowledges this by designating the entire Himalayan arc as **Zone VI (highest-risk)** based on modern scientific hazard modelling.

🔹 Body

A. Geophysical Basis of India's Seismic Vulnerability

- **Indian–Eurasian Plate Collision**
    - Indian plate moves northward at ~5 cm/yr → continuous compressional forces.
- **Major Active Fault Systems**

  - Presence of MCT, MBT, HFT → capable of generating **M8+ great earthquakes**.
- **Locked Fault Segments**
  - Several Himalayan segments (e.g., Uttarakhand gap) accumulating strain → overdue for rupture.
- **Intraplate Seismicity**
  - Stable continental regions like **Kutch**, **Delhi–Aravalli belt**, **Son–Narmada** due to ancient rift reactivation.
- **Amplification Factors**
  - Alluvial soils in Indo-Gangetic plains amplify shaking.
  - High population density increases exposure.

B. India's Preparedness in Mapping & Monitoring

- **Advanced Seismic Mapping**
  - 2025 map uses **Probabilistic Seismic Hazard Assessment (PSHA)**.
  - Includes rupture modelling, ground-motion prediction, soil effects.
- **Improved Monitoring Networks**
  - IMD has expanded digital seismometers, GPS stations, strong-motion sensors.
  - Real-time earthquake parameters now generated faster.
- **Institutional Framework**
  - BIS (codes), NDMA (guidelines), NCS (monitoring), SDMAs/DDMAs (local preparedness).
- **Building Code Updates**
  - Mandatory non-structural safety (HVAC, facades, parapets).
  - Liquefaction checks and site-specific spectra near active faults.

C. Existing Gaps & Challenges

- Weak enforcement of building codes, especially in Himalayan towns.
- Poor retrofitting of old schools, hospitals, bridges.
- Limited geotechnical capacity in ULBs and panchayats.
- Public awareness and earthquake drills remain inadequate.

□ Conclusion

- India's 2025 seismic code is a scientific leap, but **policy success requires strict enforcement**, large-scale retrofitting, and capacity building at State and district levels.
- Strengthening local bodies and integrating seismic resilience into infrastructure planning is critical to reducing India's high earthquake risk.

📓 MODEL ANSWER 2 (GS-4)

Q. *"Excellence without ethics is a threat to society." Discuss this in the context of rising ethical deficits in India's educational and professional institutions. Suggest reforms to integrate value-based learning into mainstream education.*

□ Introduction

- Excellence gives individuals power, but **without ethics it becomes dangerous**.
- Recent incidents in India—caste discrimination in premier institutes, corporate harassment, exam fraud—highlight the growing crisis of "excellence without ethics."

□ Body

A. Why Excellence Without Ethics is Harmful

- **Misuse of Authority**
    - Skilled but unethical individuals engage in caste humiliation, workplace abuse, and corruption.
- **Intelligence Used for Wrong Ends**
    - NEET paper leaks, fintech scams show high intellect misapplied.
- **Institutional Decay**
    - Unethical practices erode trust in public institutions (e.g., civil service controversies).
- **Lack of Empathy**
    - Technically competent professionals show limited sensitivity to inequality and social distress.
- **Widening Social Divides**
    - Meritocracy without values increases arrogance, exclusion, and insensitivity.

B. Causes of Ethical Deficit

- **Exam-centric Education**
  - Focus on ranks, marks, placements; ethics treated as optional.
- **Untrained Teachers**
  - Value-education often handled without proper pedagogy.
- **Contradictory Campus Culture**
  - Bullying, discrimination negate moral lessons taught in class.
- **Poor Implementation of NEP 2020**
  - No uniform curriculum for ethics and socio-emotional learning.

C. Reforms to Integrate Ethical Education

- **National Framework for Ethics**
  - Age-appropriate, secular, constitution-based value modules for K–12 & higher education.
- **Integrate Ethics Across Subjects**
  - Science → AI/biotech ethics
  - Economics → inequality, labour dignity
  - History/Literature → justice, discrimination
- **Experiential Learning**
  - Community service, rural exposure, NGO internships.
- **Campus Culture Reform**
  - Zero tolerance for discrimination; honour codes against cheating.
- **Teacher Training**
  - Mandatory ethics & SEL modules in B.Ed., M.Ed., FDPs.

□ Conclusion

- India's challenge today is not lack of talent but a deficit of morally anchored talent.
- Integrating ethics into education is essential to produce **professionals who are not just excellent, but responsible, empathetic and socially just citizens.**