

Mains PYQs - GS-1 (2025) (Q. 16 - 18)

16. Discuss how the changes in shape and size of continents and ocean basins of the planet take place due to tectonic movements of the crustal masses. (250 words, 15 marks) (2025)

Direction: Intro----How the change takes place + Example-----Conclusion.

Introduction

Define plate tectonics/plate movements.

Main Body

Changes in shape and sizes of continents and ocean basins

- Convergent Boundaries
 - Continent-continent - Mountain Building (Himalayas).
 - Ocean-ocean - Deep ocean trench (Mariana Trench) & volcanic island arc (Japan).
 - Continent-ocean - Volcanic mountain ranges (Andes Mountains & Peru-Chile Trench), causing frequent earthquakes.
- Divergent Boundaries
 - Continent-continent - Rift valley (East African Rift Valley).
 - Ocean-ocean - mid-ocean ridges - Sea floor spreading (Mid Atlantic Ridges).
 - Continent-ocean - new ocean basin, mid-ocean ridge (Red Sea (African Plate-Arabian Plate), Gulf of Aden).
- Transform boundary - Transform faults, fault valleys, offset streams (San Andreas Fault (USA), North Anatolian Fault (Turkey)).
- Provide a map to all.

Conclusion:

Conclude like Plate movement's contribution in building of planet & their contribution in growth of mankind.

17. Discuss the distribution and density of population in the Ganga River Basin with special reference to land, soil and water resources. (250 words, 15 marks) (2025).

Direction: Intro ---- Population distribution & density + Role of land, soil, water----- Conclusion.

Introduction:

Mention Ganga River Basin aspects with a map (or) define population density.

 SHANKAR IAS PARLIAMENT		
KEY FEATURES		
FEATURE	REQUIREMENT	
 Cold storage	Maintain 4°C–8°C temperature	
 Minimum capacity	Storage for at least 4 bodies	
 Body segregation	MLC and non-MLC bodies must be stored separately	
 Body identification	Each body gets a unique serial number , linked to its storage cabin	
 Location	Mortuary must be on the ground floor	
 Basement ban	No morgues in basements	
 Waste-area ban	Cannot be near hospital refuse/dumping areas	
 Entry points	Dedicated and segregated entrances for movement of bodies	
 Site requirements	Adequate lighting, ventilation and isolation	
 Hospital location	Preferably at one end or slightly away from the main hospital building	
 Staffing	Linked to the annual number of autopsies	
 Up to 100 autopsies/year	2 doctors, 2 post-mortem technicians, 2 assistants + support staff	
 Additional workload	For every additional 100 autopsies: 1 doctor + 1 technician + 1 assistant	
 Photographer	Official photographer listed as desirable	

Main Body

Distribution & Population Density

	Distribution	Population Density
Upper Ganga	Uttarakhand, Himachal Pradesh Towns: Dehradun, Haridwar.	Sparse density (150-300 persons/km ²).
Middle Ganga	Uttar Pradesh, Bihar Town: Varanasi. Kanpur, Patna.	Extremely high density (800-1,200 persons/km ²).
Lower Ganga	West Bengal Towns: Kolkata.	Highest density regional concentration (>1,000-1,300 persons/km ²).

Role of land, soil & Water

- Land - Flat land topography - Ease & dense transportation facilities, low construction cost, intense agriculture potential.
- Eg. Bihar, UP & West Bengal.
- Hilly regions have sparse population.
- Soil - Fertile Alluvial soil - Bhangar and Kadhar depositions, densest rural population, major agricultural surplus belt, etc.
- Water - Perennial water resources - Fed by glaciers & monsoon rains - Ganges & its tributaries. Majority of the water used for agriculture, helps to recharge groundwater.

Conclusion:

Conclude with a positive note - people prefer to settle in this basin because of the availability of resources, which leads to the density of population. (or) Interlink with some

tech-related interventions to improve availability of resources with a future perspective.

18. How do you account for the growing fast food industries given that there are increased health concerns in modern society? Illustrate your answer with the Indian experience. (250 words, 15 marks) (2025)

Direction: Intro----Reason for Growth + Indian Experience-----Conclusion.

Introduction:

Describe briefly about fast food industries & add some data related to it.

Main Body

Reason for growth of fast food industries

- Lifestyle changes – Busy work culture, etc.
- Urbanisation
- Digital/Quick Commerce – online instant delivery apps, etc. (Hyper-Convenience Economy).
- Aggressive marketing & Branding
- Rise of demand – for taste, flavour, etc, especially among youths and teenagers.
- Westernisation of food habits
- Availability & Affordability

Indian Experience

- Diabetics capital – ICMR indicates that over 11% of the Indian population is diabetic.
- Rise of lifestyle diseases – Rise of heart-related issues, hypertension, obesity, etc.
- Double burden of malnutrition – Micronutrient deficiencies ("hidden hunger") + rising adult and childhood obesity rates.

Conclusion:

Conclude that growth reflects in the lifestyle shift & rise in health concerns. To tackle this, create awareness, promote healthier alternatives, ensure affordability, etc to the people.