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UPSC Mains 2017 GS I

Year-wise PYQ pack · WRAP model answers with canonical links

Official UPSC stems in exam order. Each live answer sits on one WRAP URL; this PDF is the year pack, not a second copy of the article. Open the link under a question for the full page.

<https://wrapexams.com/upsc/mains/gs-1/2017/>

Q1 · 10 marks

How do you justify the view that the level of excellence of the Gupta numismatic art is not at all noticeable in later times?

GS I · 2017 · Indian Heritage and Culture

Revision summary

Gupta gold showed the king as archer, lyrist, or horseman with Lakshmi or ritual reverses and Brahmi verse.

Metal was relatively pure and the die work was sculptural.

Post-Gupta and early medieval coins often debased metal and used stiff stock types.

Sultanate and Mughal art followed another visual language.

The claim holds for Gupta-style numismatic art, not for all later mint skill.

Flow diagram

Gupta dinara -> Portrait legend Lakshmi

Debase copy Huna

Medieval types

Portrait legend Lakshmi -> Later series

Debase copy Huna -> Later series

Medieval types -> Later series

Later series -> Excellence not continued

Conclusion

- Justify the view with die quality, metal, and iconography, and name Samudragupta's lyrist type against a later bull-and-horseman piece.
- Treat the break as a change of court taste and metal supply after the sixth century, not as the death of all Indian coin skill.

Gupta numismatic art set a peak of portrait, legend, and ritual reverse on gold. Later Indian coinage remained useful money, but that particular excellence of modelling and royal theatre is not noticeable in the same way.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/gs-1/2017/how-do-you-justify-the-view-that-the-level-of-excellence-of-the-gupta-numismatic-art-is-not-at-all-noticeable-in-later-times/>

WRAP Exams

Q2 · 10 marks

Clarify how mid-eighteenth century India was beset with the spectre of a fragmented polity.

GS I · 2017 · World's Physical Geography

Revision summary

After 1707 the Mughal emperor lost the capacity to rule provinces in fact.

Nadir Shah and Abdali exposed Delhi's military hollowness.

Bengal, Awadh, Hyderabad, Marathas, Sikhs, and Mysore became separate armed powers.

Panipat 1761 showed even the Marathas were not a single state.

Company victories in the Carnatic and Bengal fitted into this broken order.

Flow diagram

Mughal centre weak -> Nawabs Nizam
Mughal centre weak -> Marathas Sikhs Mysore
Mughal centre weak -> Abdali raids
Nawabs Nizam -> Fragmented polity
Marathas Sikhs Mysore -> Fragmented polity
Abdali raids -> Fragmented polity
Company wars -> Fragmented polity

Conclusion

- Describe fragmentation as many sovereignties, not as an empty land, because successor states were often vigorous.
- **Link the spectre to security and trade:** no single power could guarantee the roads from Bengal to Delhi or from Surat to the Deccan.

Mid-eighteenth century India was beset by a fragmented polity because the Mughal centre had failed while Nawabs, Marathas, Afghans, and European companies all claimed pieces of the same realm. Unity of the map existed only as a fading imperial name.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/gs-1/2017/clarify-how-mid-eighteenth-century-india-was-beset-with-the-spectre-of-a-fragmented-polity/>

Q3 · 10 marks

Why did the 'Moderates' failed to carry conviction with the nation about their proclaimed ideology and political goals by the end of the nineteenth century?

GS I · 2017 · The Freedom Struggle

Revision summary

Moderate goals were council seats, ICS, and drain critique, not immediate independence.

Methods were petitions and annual sessions that missed peasant and mill-hand life.

The social base was presidency professionals speaking English public language.

1892 reforms were too small to prove the method worked.

By the century's end a hotter nationalist mood found them unconvincing.

Flow diagram

Moderates -> Petitions councils loyalty
Wider political public -> Famine drain dignity
Petitions councils loyalty -> Gap of conviction
Famine drain dignity -> Gap of conviction
Thin 1892 reforms -> Gap of conviction

Conclusion

- Explain failure as a gap between elite constitutionalism and a growing political public, not as personal cowardice.
- Note that Moderate work still built the Congress platform, drain theory, and a trained leadership that later phases used.

Moderates failed to carry conviction because their goals stayed within Empire, their methods stayed in the petition hall, and their social reach stayed urban and English. By 1900 a larger political nation wanted proof of power, not another memorial.

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Q4 · 10 marks

What problems are germane to the decolonization process in the Malay Peninsula?

GS I · 2017 · History of the World

Revision summary

Colonial economy split Malays, Chinese, and Indians into unequal roles, so citizenship was the first problem.

Malayan Union failed; the 1948 Federation restored Malay rulers and tighter belonging.

The Emergency mixed decolonization with anti-communist war and resettlement.

Malaysia 1963 tried to balance Singapore and Borneo; Konfrontasi tested the borders.

Singapore's 1965 exit showed the federation bargain was not settled.

Flow diagram

Plural Malays Chinese Indians -> Citizenship sultans

Emergency 1948-60 -> Independence 1957

Citizenship sultans -> Independence 1957

Independence 1957 -> Malaysia 1963

Malaysia 1963 -> Singapore exit 1965

Conclusion

- Treat germane problems as communal arithmetic, guerrilla war, and federal design, not as a missing nationalist party.
- **Compare with India only carefully:** Malaya had no single Congress-type majority community covering the whole peninsula.

Decolonization in the Malay Peninsula was shaped by a plural society, a long Emergency, and a fragile federation that soon lost Singapore. The germane problems were who belonged, who fought, and how the map of Malaysia could hold.

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Q5 · 10 marks

How does the Juno Mission of NASA help to understand the origin and evolution of the Earth?

GS I · 2017 · Indian Heritage and Culture

Revision summary

Jupiter stored early nebular gas that Earth did not keep, so it is a formation archive.

Juno measures deep water, gravity, and the magnetic field from polar orbit.

Water and core structure constrain how wet and how mixed the disc was.

That disc story controls Earth's water, metals, and bombardment history.

Juno feeds models; it does not replace Earth and Moon samples.

Flow diagram

Juno at Jupiter -> Water ammonia
Juno at Jupiter -> Gravity core
Juno at Jupiter -> Dynamo magnetosphere
Water ammonia -> Solar nebula
Gravity core -> Solar nebula
Solar nebula -> Earth origin models

Conclusion

- State clearly that Juno does not photograph early Earth; it supplies boundary conditions for solar-system formation models.
- Pair Juno with meteorites, lunar samples, and Earth geology rather than treating one orbiter as a full history of our planet.

Juno helps us understand Earth's origin by measuring the first giant's water, core, and magnetic engine, which are leftovers of the nebula that also built the terrestrial planets. Earth's later evolution still needs its own rocks; Juno sets the family story in which those rocks make sense.

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Q6 · 10 marks

"Inspite of adverse environmental impact, coal mining is still inevitable for development". Discuss.

GS I · 2017 · Natural Resources and Industries

Revision summary

Coal still backs Indian electricity and several heavy industries.

Mine belts depend on royalties and jobs, which ties regional development to the pit.

Open-cast and burning cause forest loss, pollution, displacement, and carbon.

Inevitability is about the present energy mix, not a permanent licence.

Washing, norms, reclamation, and a just shift to other power must cut the harm.

Flow diagram

Coal mining -> Power steel cement jobs
Coal mining -> Forest water air CO2
Power steel cement jobs -> Present development
Renewables storage -> Lower coal share
Forest water air CO2 -> Lower coal share

Conclusion

- Keep coal for residual baseload and hard-to-abate industry while closing the worst mines and plants first.
- Fund alternative livelihoods in coal belts so development does not mean only more extraction.

Coal mining remains hard to drop overnight because power, steel, and regional fiscs still run on it. Development that ignores the environmental bill is false development; the honest path is a time-bound, cleaner, smaller coal role, not a denial of either harm or present need.

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Q7 · 10 marks

Mention the advantages of the cultivation of pulses because of which the year 2016 was declared as the International Year of Pulses by United Nations.

GS I · 2017 · World's Physical Geography

Revision summary

The UN marked 2016 to highlight pulses as food and as a farming solution.

Dal supplies protein and micronutrients beside cereals.

Nodules fix nitrogen and spare fertiliser in rotations.

Many pulses suit rainfed land and catch-crop slots.

Smallholders gain if seed, price, and storage match the crop's public value.

Flow diagram

IYP 2016 -> Protein micronutrients

IYP 2016 -> Nitrogen fixation

IYP 2016 -> Low water dryland

Protein micronutrients -> Food security

Nitrogen fixation -> Food security

Low water dryland -> Food security

Conclusion

- Keep the IYP message as more area under pulses on drylands, MSP and procurement that work like wheat, and kitchens that still cook dal.
- Pair cultivation with storage, processing, and research on wilt and drought so the advantages are realised on the field, not only in a UN year.

Pulses earned a UN year because they feed people, feed the soil, and fit water-scarce farms. Cultivation advantages are protein, nitrogen, and resilience; policy has to make those advantages pay the grower.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/gs-1/2017/mention-the-advantages-of-the-cultivation-of-pulses-because-of-which-the-year-2016-was-declared-as-the-international-year-of-pulses-by-united-nations/>

Q8 · 10 marks

How does the cryosphere affect global climate?

GS I · 2017 · Geophysical Phenomena

Revision summary

Snow and sea ice raise planetary albedo and keep the energy budget cooler.

Loss of ice darkens the surface and adds a warming feedback.

Ice sheets control sea level; glaciers control seasonal river water.

Freshwater input can alter ocean circulation.

Permafrost thaw can release greenhouse gases and extend the warming.

Flow diagram

Cryosphere -> High albedo

Cryosphere -> Ice sheets sea level

Cryosphere -> Permafrost carbon

High albedo -> Global climate

Ice sheets sea level -> Global climate

Permafrost carbon -> Global climate

Conclusion

- **Treat the cryosphere as both a thermometer and an engine:** it records warming and it drives further warming through albedo and carbon.
- Link polar ice, Himalayan snow, and permafrost in one answer so global climate is not reduced to Arctic sea ice alone.

The cryosphere cools the planet by reflecting light, stores carbon in frozen ground, and sets the long-term water level of the oceans. As it shrinks, those controls weaken, so global climate becomes warmer, wetter in some belts, and more unstable at the coasts.

Open WRAP page —

<https://wrapexams.com/upsc/mains-answers/gs-1/2017/how-does-the-cryosphere-affect-global-climate/>

Q9 · 10 marks

In the context of the diversity of India, can it be said that the regions form cultural units rather than the States? Give reasons with examples for your view point.

GS I · 2017 · Indian Society and Diversity

Revision summary

Culture follows dialect, food, and old country names more tightly than State borders.

Bundelkhand, Bhojpuri country, Konkan, and Saurashtra are examples of mismatch.

Linguistic States still concentrate a public language and cinema.

Nested diversity means a State can contain many regions and a region can cross States.

The fair view is that regions are the primary cultural units, States the political frame.

Flow diagram

Historic regions -> Speech food festival

States -> Law school official tongue

Speech food festival -> Diversity

Law school official tongue -> Diversity

Historic regions -> often cross States

Conclusion

- **Answer yes, with a caveat:** regions are the finer cultural units; States are the legal frames that sometimes fit and often approximate those units.
- Use concrete belts, not a claim that States have no culture at all.

In India's diversity, cultural units are more often historic-ecological regions than the State outline on a wall map. States matter for law and language policy, but they sit on top of Konkan, Bundelkhand, Mithila, and similar living regions that ignore those lines.

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Q10 · 10 marks

What are the two major legal initiatives by the State since Independence addressing discrimination against Scheduled Tribes(STs)? (250 words).

GS I · 2017 · Post-independence Consolidation

Revision summary

Constitutional equality was not enough against tribal atrocity and forest eviction.

The 1989 PoA Act creates special offences and forums against violence and humiliation of STs.

The 2006 FRA recognises individual and community forest rights through the gram sabha.

One law targets interpersonal caste-patterned crime; the other targets State and forest exclusion.

Fifth Schedule and PESA support self-rule but the two headline initiatives remain PoA and FRA.

Flow diagram

ST discrimination -> Atrocity humiliation

ST discrimination -> Forest land denial

Atrocity humiliation -> PoA Act 1989

Forest land denial -> FRA 2006

PoA Act 1989 -> Legal protection

FRA 2006 -> Legal protection

Conclusion

- Name the two Acts clearly, then add **Fifth Schedule**, PCR Act 1955, and PESA only as supporting architecture.
- Stress land, forest, and bodily dignity as the three sites of tribal discrimination these laws try to reach.

Since Independence the State's two major legal answers to ST discrimination are the 1989 Atrocities Act against violence and humiliation, and the 2006 **Forest Rights Act** against eviction from forest land and livelihood. Rights on paper still need courts and gram sabhas if discrimination is not to continue in fact.

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Q11 · 15 marks

The spirit of tolerance and love is not only an interesting feature of Indian society from very early times, but it is also playing an important part at the present. Elaborate. (250 words).

GS I · 2017 · Indian Heritage and Culture

Revision summary

Early India mixed many sects; **Ashoka**, ahimsa, Bhakti, Sufi, and sulh-i-kul made tolerance a public teaching.

Love in kirtan, langar, and khanqah opened the congregation beyond birth, without ending jati.

The Constitution restates that ethic as equal citizenship and freedom of religion.

Festivals, relief, and mixed cities still live by it.

Riots and caste violence prove the spirit is contested and must be enforced, not assumed.

Flow diagram

Ashoka dhamma ahimsa -> Bhakti Sufi langar
Bhakti Sufi langar -> Sulh-i-kul composite custom
Sulh-i-kul composite custom -> Constitution Arts 14 15 25-28
Constitution Arts 14 15 25-28 -> Present mixed civic life
Riot caste majoritarianism -> Limits on the ethic
Present mixed civic life -> Limits on the ethic

Conclusion

- Teach composite history without erasing conflict, enforce riot law equally, and keep mixed housing and schools so tolerance is a habit, not a slogan.

From Ashokan dhamma and Bhakti-Sufi love to constitutional secularism, Indian society has repeatedly made room for the neighbour. That spirit still holds public life together, but only if law and mixed living check communal and caste hate. Tolerance is a practised inheritance, not a finished fact.

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Q12 · 15 marks

Examine how the decline of traditional artisanal industry in colonial India crippled the rural economy. (250 words).

GS I · 2017 · Indian Heritage and Culture

Revision summary

Mill imports and lost court demand cut weavers, spinners, and village crafts across the nineteenth century.

Artisan households lost a second wage, including women's spinning.

Labour crowded agriculture, raising subdivision, rent, and debt.

Village grain-for-craft exchange gave way to cash and distant markets.

Famine and nationalist economics both recorded this as a structural rural injury.

Introduction

Pre-colonial India had a thick rural web of weavers, spinners, smiths, potters, and oil-pressers tied to peasant demand and long-distance cloth. Colonial free trade, mills, and revenue broke that web. The village then had fewer non-farm earnings, more people on the same land, and a thinner local market.

Body**How traditional industry declined**

- Cheap Lancashire and later Bombay mill yarn and cloth, after one-way free trade and the fall of tariff walls, undercut hand-spinners and many handloom weavers who had supplied village and export markets.
- Railways and steam shipping moved mill goods inland faster than they created new rural factories, so the artisan faced competition without a matching industrial job at home.
- Company and Crown demand shifted from Indian fine cloth to raw cotton, indigo, opium, and grain, which turned the countryside into a raw-material hinterland.
- Loss of court and temple patronage after annexation, and the drain of bullion discussed by early nationalists, cut the luxury and ritual orders on which skilled crafts had lived.
- Some crafts survived in niches, and Morris and others have qualified a simple 'deindustrialisation' story, but the rural weaver and village artisan clearly lost share and security across the long nineteenth century.

How that crippled the rural economy

- The artisan household had been a second income beside the field; when the loom and the wheel paid less, the family leaned harder on tiny plots and on moneylender grain.
- Spinners, often women, lost a home-based wage, which reduced household buffering against a bad monsoon.
- Village exchange-grain for cloth, metal, and pots-thinned, so the peasant sold more in a distant market and bought mill cloth with cash, which raised exposure to price swings.
- Surplus labour that once sat in craft crowded agriculture, which worsened subdivision, rent, and the bargaining power of landlords and revenue officials.
- Famine years became harsher where craft income had been the drought buffer; Dadabhai Naoroji and R.C. Dutt tied this rural weakness to colonial fiscal and trade design.

- Towns that had been weaving centres, from parts of Bengal and the Coromandel to inland qasbas, shrank as rural buying power fell, which further cut demand for village produce.

Limits and later politics

- Not every region deindustrialised at the same pace; some handlooms adapted with mill yarn.
- Swadeshi, later khadi, and post-1947 small-industry policy were political answers to this rural wound, which shows how central the artisan collapse was to the nationalist reading of the village.

Way forward for the answer

- Name mill competition and lost patronage first, then show the chain to land pressure, women's lost yarn wage, and a weaker famine buffer.

Flow diagram

Free trade mill cloth railways -> Artisan income falls
Artisan income falls -> More pressure on land
Artisan income falls -> Thinner village exchange
More pressure on land -> Rent debt famine risk
Thinner village exchange -> Rent debt famine risk
Rent debt famine risk -> Crippled rural economy

Conclusion

Colonial rule did not only replace Indian cloth with foreign cloth. It stripped rural artisans of a living, pushed their labour onto over-taxed land, and broke the village circuit of craft and grain. That is how the decline of traditional industry crippled the rural economy, even where some looms survived in a thinner form.

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Q13 · 15 marks

Highlight the importance of the new objectives that got added to the vision of Indian Independence since the twenties of the last century. (250 words).

GS I · 2017 · The Freedom Struggle

Revision summary

The 1920s mass movements and 1929 poorna swaraj made complete independence the political goal.

Karachi 1931 and later planning added rights, wages, and a state economic role.

Gandhi's constructive work and anti-untouchability campaigns socialised swaraj.

Peasant, labour, and women's politics entered the national list.

Independence was thereby recast as social transformation, later written into the Constitution.

Introduction

Until the First World War, much moderate politics asked for constitutional crumbs inside the Empire. From the 1920s the national movement added mass satyagraha, poorna swaraj, social equality, and a planned economic life for peasants and workers. Those new objectives made Independence a programme for the whole people.

Body

Political objectives that widened after 1920

- Non-cooperation and Khilafat (1920-22) brought towns, students, and many Muslims into a mass fight, so Independence was no longer a lawyers' petition.
- The Lahore Congress (1929) and the 26 January 1930 pledge named poorna swaraj-complete independence-as the goal, replacing dominion-status caution.
- Civil Disobedience, the salt satyagraha, and later **Quit India (1942)** made the state itself the target, while the INA trials widened the idea of a national army.

Social and economic objectives

- **Gandhi's** constructive programme-khadi, village sanitation, Hindu-Muslim unity, and an attack on untouchability-made swaraj a social discipline, not only a flag.
- The Karachi Resolution (1931) promised fundamental rights, a living wage, and state regulation of key industry, which tied freedom to a social-economic charter.
- The Congress Socialist Party (1934), **Nehru's** planning talk, and the **National Planning Committee (1938)** added a vision of ending colonial drain through industry and agrarian reform.
- Peasant satyagrahas such as **Bardoli (1928)** and kisan sabhas put rent, revenue, and debt on the national list. Labour strikes did the same for mill hours and unions.
- Temple entry, the **Poona Pact (1932)** after the Communal Award, and **Ambedkar's** claim for depressed classes forced caste justice into the meaning of freedom, even when Congress and **Ambedkar** disagreed on method.
- Women's participation in salt marches and later in legislatures, and debates on child marriage and education, added gender to the public agenda of swaraj.

Why these additions mattered

- Transfer of power without land reform, labour rights, and caste dignity would have left the colonial social order intact under Indian ministers.
- The 1930s-40s programme fed the Constitution's rights, Directive Principles, planning, and adult franchise, so the republic was imagined before 1947.
- Linguistic and regional claims, and the peasant-worker question, also warned that Independence had to be federal and social, or it would split.

Limits

- Communal settlement failed, and Partition showed that the widened vision did not carry every community with it.
- Many peasant and caste promises remained incomplete after 1947, which is why the 1920s turn still measures the republic.

Way forward for the answer

- List poorna swaraj, Karachi rights, constructive programme, planning, kisan-labour, and caste-gender, then say these made Independence a social revolution in intent.

Flow diagram

Mass satyagraha 1920s -> Poorna swaraj 1929
Poorna swaraj 1929 -> Karachi rights 1931
Karachi rights 1931 -> Planning kisan labour
Mass satyagraha 1920s -> Untouchability women unity
Planning kisan labour -> Republic rights DPSP
Untouchability women unity -> Republic rights DPSP

Conclusion

From the 1920s the vision of Independence grew from elite reform to complete swaraj plus rights, village uplift, planning, peasant and labour justice, and a fight on untouchability. Those new objectives mattered because they defined freedom as a new social order. The Constitution is their unfinished legal form.

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Q14 · 15 marks

Account for variations in oceanic salinity and discuss its multi-dimensional effects. (250 words).

GS I · 2017 · World's Physical Geography

Revision summary

Average ocean salinity is about 35 ppt, but subtropics are saltier and river mouths and poles are fresher.

Enclosed gulfs can be extremely saline; the Baltic is brackish.

Salinity plus temperature sets density and helps drive the global conveyor.

The Arabian Sea-Bay of Bengal contrast is a clear monsoon-ocean effect.

Life, cyclones, desalination, and coastal soils all feel these spatial differences.

Introduction

Ocean water averages about 35 parts per thousand of dissolved salts, but that figure hides sharp regional contrasts. Evaporation, rainfall, river input, ice, and mixing set the pattern. Salinity then feeds back into density, currents, marine life, and even monsoon-margin climate.

Body

Why salinity varies

- Subtropical highs, such as the North Atlantic and the Arabian Sea in the dry season, lose water to evaporation and gain little rain, so surface salinity rises.
- Equatorial belts receive heavy convection rain, so salinity is often lower than in the dry subtropics even though heat is high.
- Polar and subpolar seas are freshened by ice melt and low evaporation; sea-ice formation, by contrast, rejects brine and can locally raise salinity and density.
- Huge rivers-the Amazon, Congo, Ganga-Brahmaputra, and Mekong-create low-salinity plumes on the adjacent shelf, visible far offshore in the Bay of Bengal.
- **Enclosed and semi-enclosed basins diverge:** the Red Sea and Persian Gulf are highly saline; the Baltic and Black Sea surface layers are brackish because of runoff and limited exchange.
- Currents and upwelling mix water; the Mediterranean outflow is salty and dense, while monsoon reversal in the Indian Ocean seasonally reshapes the Arabian Sea-Bay of Bengal contrast.

Multi-dimensional effects

- **Density, with temperature, drives thermohaline circulation:** salty, cold water sinks in the North Atlantic and helps the global conveyor that redistributes heat.
- Fresh caps, as in the Bay of Bengal, stabilise the surface, affect cyclone heat supply, and change monsoon moisture and the depth of mixing.
- Marine organisms are adapted to salinity bands; estuaries host specialised fisheries, while coral and many open-ocean species fail if salt or runoff shifts too far.
- Sea ice, deep water formation, and possible Atlantic Meridional Overturning slowdown are climate risks if Greenland melt freshens the high-latitude Atlantic.
- **Human uses follow the map:** desalination is costlier in already salty gulfs only in energy terms of intake chemistry; ports and aquaculture must match local salt; naval and submarine

acoustics change with density layers.

- Salt belts also shape salt pans, coastal soils, and mangrove limits, which is a landward effect of oceanic and lagoon salinity.

Indian Ocean illustration

- The Arabian Sea is typically saltier than the Bay of Bengal because of evaporation, fewer mega-deltas, and different monsoon freshwater. That contrast matters for monsoon modelling and for cyclone behaviour on the two coasts.

Way forward for the answer

- Give the water-budget causes first, name high and low seas, then chain density-climate-life-human use, with one Indian Ocean pair.

Flow diagram

Evaporation rain rivers ice -> Surface salinity pattern
Surface salinity pattern -> Density thermohaline flow
Surface salinity pattern -> Bay vs Arabian contrast
Density thermohaline flow -> Heat climate conveyor
Surface salinity pattern -> Fisheries mangroves desalination

Conclusion

Oceanic salinity varies because the water budget-evaporation, rain, rivers, ice, and mixing-is not the same in every basin. Those variations steer density-driven circulation, monsoon and cyclone settings, fisheries, and coastal livelihood. Salinity is therefore a climate and resource variable, not only a school figure of 35 ppt.

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Q15 · 15 marks

Petroleum refineries are not necessarily located nearer to crude oil producing areas, particularly in many of the developing countries. Explain its implications. (250 words).

GS I · 2017 · Indian Heritage and Culture

Revision summary

Refined products serve cities and ports; crude can travel by tanker and pipeline, so plants need not sit on the field.

Developing countries often import crude and therefore refine at harbours.

India's coastal complexes and pipeline-fed inland plants (Mathura, Panipat) show market pull.

Gains are export capacity and urban fuel; costs are coastal pollution, chokepoints, and weaker downstream growth in producing interiors.

Product pipelines and strategic reserves are the locational correction.

Flow diagram

Wells inland or foreign -> Crude by ship pipeline
Crude by ship pipeline -> Coastal or market refinery
Coastal or market refinery -> City fuel petrochemicals export
Coastal or market refinery -> Spill air coastal risk
Coastal or market refinery -> Jobs tax at port not at well

Conclusion

- Site new capacity by product demand, green norms, and disaster buffers, not by a crude map alone; share petrochemical jobs with producing states through pipelines and tax devolution.

Refineries follow markets, ports, pipelines, and politics more than they follow wells, especially where crude is imported. The implication is a coastal concentration of value, risk, and exports, and a need for product grids, spill control, and strategic reserves so inland producers and city consumers are not left with the wrong half of the oil chain.

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Q16 · 15 marks

In what way can floods be converted into a sustainable source of irrigation and all-weather inland navigation in India? (250 words).

GS I · 2017 · Natural Resources and Industries

Revision summary

Monsoon floods can be stored in tanks, wetlands, aquifers, and reservoir cushions for later irrigation.

Traditional spreading systems and Khadar recharge turn a short peak into rabi water.

National waterways need that stored water and careful barrages to keep draught after the flood.

Embankment-only control raises the bed and fails both goals.

Sediment, ecological flow, and floodplain zoning make the conversion sustainable.

Flow diagram

Monsoon flood peak -> Tanks wetlands recharge
Monsoon flood peak -> Reservoir flood cushion
Tanks wetlands recharge -> Rabi irrigation wells
Reservoir flood cushion -> Rabi irrigation wells
Reservoir flood cushion -> Lean-season draught
Lean-season draught -> NW-1 NW-2 barges
Floodplain zoning sediment -> Rabi irrigation wells
Floodplain zoning sediment -> NW-1 NW-2 barges

Conclusion

- Combine tank-wetland recharge, honest reservoir rule curves, and maintained waterways; score success by rabi hectares and barge-days, not by kilometres of new bund.

Floods become a sustainable irrigation source when peaks are spread into tanks, aquifers, and rule-curved reservoirs, and they support all-weather navigation when that stored water keeps a fairway draught on national waterways. The method is living with the pulse of the monsoon river, not sealing it between rising embankments.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/gs-1/2017/in-what-way-can-floods-be-converted-into-a-sustainable-source-of-irrigation-and-all-weather-inland-navigation-in-india-250-words/>

Q17 · 15 marks

What characteristics can be assigned to monsoon climate that succeeds in feeding more than 50 percent of the world population residing in Monsoon Asia? (250 words).

GS I · 2017 · Women, Population and Urbanisation

Revision summary

Monsoon Asia's climate is a seasonal wind reversal with concentrated summer rain and a long frost-free season.

Mountains lift moisture and feed alluvial plains.

Wet-rice and double cropping yield high calories per hectare, supporting huge populations.

Warm seas and ENSO make the rain generous but variable.

Irrigation and flood management are part of the climate's human success, not extras.

Introduction

Monsoon Asia-from India and China through mainland and island South-East Asia-holds more than half of humanity on a relatively small share of the Earth's land. The monsoon climate's seasonal rain, long warm growing season, and wet-rice ecology make that density possible. The same rhythm also brings flood, drought, and a narrow margin when the monsoon fails.

Body

Core climatic characteristics

- A seasonal reversal of wind, tied to land-sea heating and the shift of the ITCZ, brings concentrated summer rain after a hot pre-monsoon, which is the opposite of a year-round mid-latitude drizzle.
- High insolation at low latitudes plus a long frost-free season allow rice, and in the north a rice-wheat or rice-rabi sequence, so one plot can yield more than one harvest.
- Orography-the Himalaya, Western Ghats, Arakan, and Annam ranges-lifts moist air and creates wet windward belts and rain-shadow interiors, which still support irrigation from the wet side's rivers.
- Warm seas (Bay of Bengal, South China Sea) supply moisture; El Niño-Southern Oscillation and the Indian Ocean Dipole add year-to-year swings, which is a built-in characteristic, not an accident.
- A dry winter in much of South Asia allows ripening, storage, and a second crop where irrigation or residual moisture exists; East and South-East Asia's rice calendars use similar wet-dry pulses.

How those traits feed a huge population

- Wet-rice on alluvium and volcanic soils (Ganga, Red River, Chao Phraya, Java) gives high calories per hectare and supports nucleated villages and labour-intensive agriculture.
- Multiple cropping, canal and tank irrigation that extend the monsoon, and later groundwater have pushed carrying capacity far above rain-fed millet belts.
- Rivers fed by monsoon rain and Himalayan snowmelt irrigate plains that are also transport corridors, so food and people move together.
- Fisheries in flooded rice and deltas add protein; the climate that grows paddy also grows people.

Risks that come with the same climate

- Breaks, late onset, and excess rain mean flood and drought can hit the same region in one decade; more than half the world lives on a climate that is generous but unreliable.
- Climate change, glacier loss, and groundwater mining now stress the old match between monsoon and population.

Way forward for the answer

- Name reversal, summer concentration, heat, orography, and double cropping, then say wet-rice alluvium is why Monsoon Asia can feed so many-if water is stored and shared.

Flow diagram

Land-sea heat ITCZ -> Seasonal rain reversal
Himalaya Ghats ranges -> Seasonal rain reversal
Seasonal rain reversal -> Wet-rice alluvium
Long warm season -> Multiple cropping
Wet-rice alluvium -> High calories high density
Multiple cropping -> High calories high density
ENSO flood drought -> Risk to that feeding

Conclusion

The monsoon climate combines a hot long growing season with a sharp summer rain pulse, orographic rivers, and wet-rice soils. Those characteristics, not chance, let Monsoon Asia support more than half of the world's people. The same pulse demands irrigation, flood room, and climate adaptation, or the demographic success becomes a food risk.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/gs-1/2017/what-characteristics-can-be-assigned-to-monsoon-climate-that-succeeds-in-feeding-more-than-50-percent-of-the-world-population-residing-in-monsoon-asia-250-words/>

Q18 · 15 marks

The women's questions arose in modern India as a part of the 19th century social reform movement. What are the major issues and debates concerning women in that period? (250 words).

GS I · 2017 · Indian Heritage and Culture

Revision summary

The women's question grew inside social reform, not as a separate suffrage movement at first.

Sati (1829), widow remarriage (1856), age of consent (1891), education, and purdah were the core issues.

Reformers reread shastra; conservatives and some nationalists treated law as an insult to community honour.

Missionary and colonial 'civilising' claims competed with Indian male reform of the home.

A few women writers and teachers insisted they were subjects, not only symbols.

Introduction

The women's question in modern India did not begin as a mass feminist party. It arose inside nineteenth-century social reform, where Indian men, a few women, missionaries, and the colonial state argued over sati, the widow, the child wife, and the schoolgirl. The issues were real; the debates were also about tradition, nation, and colonial power.

Body

Major issues

- Sati, especially in Bengal, became the first public test; Rammohan Roy's campaign and the Bengal Sati Regulation, 1829, treated the burning of the widow as a crime, not as a sacred duty.
- Widow remarriage, pressed by Ishwar Chandra Vidyasagar and the Hindu Widows' Remarriage Act, 1856, attacked enforced widowhood, tonsure, and social death.
- Female infanticide, child marriage, and the age of consent-raised sharply by the Age of Consent Act, 1891, after the Phulmoni case-put the girl child's body at the centre of law.
- Women's education, from missionary schools to Bethune School, Savitribai and Jyotirao Phule's work in Pune, and later Pandita Ramabai, asked whether the Hindu or Muslim woman might read without losing virtue.
- Purdah, polygamy, property, and the right to move in public were debated in both Hindu and Muslim reform, including Sir Syed's cautious modernism and later Begum-led efforts.
- The Brahmo, Prarthana, and Arya Samaj, and reformers such as M.G. Ranade and Behramji Malabari, tied women's uplift to a purified religion and a modern household.

Major debates

- **Tradition versus reform:** opponents said shastra and custom forbade change; reformers reread texts, as Rammohan and Vidyasagar did, to claim that true dharma did not need sati or the imprisoned widow.
- **Colonial law versus community honour:** the 1891 age-of-consent controversy saw Bal Gangadhar Tilak and others attack state intrusion into Hindu marriage even when they were not defending child rape as such; the nation was said to be shamed if the Raj legislated the bedroom.
- **Civilising mission versus Indian agency:** missionaries and officials used women's suffering to justify Empire; Indian reformers answered that they would reform their own homes, which

both helped women and limited women's independent voice.

- **Woman as symbol versus woman as subject:** the educated companionate wife was often designed by men for a new middle-class home; Pandita Ramabai, Tarabai Shinde, and Savitribai named caste and conversion in ways that embarrassed that script.

- **Caste and region:** Phule linked women's bondage to Brahmanic rank; Bengal's bhadralok debate was not the same as western-Indian or Muslim-ashraf debates, yet all used 'woman' to define community.

What the period settled and left open

- Law banned sati and allowed widow remarriage on paper; practice lagged, and property, vote, and work remained twentieth-century fights.
- The nineteenth-century question still taught the later national movement that swaraj without the home would be incomplete.

Way forward for the answer

- List sati, widowhood, consent, education, and purdah, then show the honour-versus-law and symbol-versus-subject debates.

Flow diagram

Sati widow child marriage -> Reformers Rammohan Vidyasagar Phule
 Reformers Rammohan Vidyasagar Phule -> 1829 1856 1891 laws
 1829 1856 1891 laws -> Honour vs colonial law
 Education Ramabai Savitribai -> Woman as subject
 Honour vs colonial law -> National middle-class home
 Woman as subject -> National middle-class home

Conclusion

Nineteenth-century reform put sati, the widow, the child wife, and the schoolgirl on the public stage. The debates were about scripture, colonial law, community honour, and whether women were symbols of the nation or persons with a voice. Those issues created modern India's women's question; they did not finish it.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/gs-1/2017/the-womens-questions-arose-in-modern-india-as-a-part-of-the-19th-century-social-reform-movement-what-are-the-major-issues-and-debates-concerning-women-in-that-period-250-words/>

Q19 · 15 marks

Distinguish between religiousness/religiosity and communalism giving one example of how the former has got transformed into the latter in independent India. (250 words).

GS I · 2017 · Social Empowerment, Communalism and Secularism

Revision summary

Religiosity is lived faith and rite; communalism is religion as a political bloc against an other.

- **The two can share symbols, but they differ in aim:** salvation or worship versus power and exclusion.
- **Ayodhya shows the turn:** old Rama devotion organised into a campaign that demolished the Babri Masjid in 1992.

Riots and polarised voting completed the shift from pilgrimage to communal identity.

Protecting worship while punishing hate keeps the distinction real.

Flow diagram

Religiosity prayer pilgrimage -> Rama bhakti Ayodhya
Rama bhakti Ayodhya -> Political campaign rath yatra
Political campaign rath yatra -> Communalism bloc vs Muslim other
Communalism bloc vs Muslim other -> 6 Dec 1992 riots polarisation
Law equal citizenship -> Religiosity prayer pilgrimage
Law equal citizenship -> Checks Communalism bloc vs Muslim other

Conclusion

- Protect pilgrimage and prayer; prosecute hate, rumour, and riot. Mixed civic life, not a ban on faith, is the reply to communalism.

Religiosity is devotion; communalism is the political use of a religious bloc against another community. In independent India, Rama bhakti at Ayodhya was transformed, through campaign and the 1992 demolition, into communal mobilisation. The distinction stands only if the state defends faith as a right and refuses that transformation.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/gs-1/2017/distinguish-between-religiousness-religiosity-and-communalism-giving-one-example-of-how-the-former-has-got-transformed-into-the-latter-in-independent-india-250-words/>

Q20 · 15 marks

"The growth of cities as I.T. hubs has opened up new avenues of employment, but has also created new problems". Substantiate this statement with examples (250 words).

GS I · 2017 · World's Physical Geography

Revision summary

Bengaluru, Hyderabad, Pune, Chennai, and Gurugram became IT hubs with software, BPO, and start-up jobs.

Multiplier work in transport, food, and real estate widened employment beyond engineers.

Women's urban service work grew in these centres.

New problems are sprawl, lake and groundwater stress, congestion, social dualism, and e-waste.

- **The statement is substantiated:** hubs hire, and they strain the city unless planning catches up.

Flow diagram

IT campuses exports -> Engineers BPO women services

IT campuses exports -> Multiplier informal jobs

Engineers BPO women services -> Hub city growth

Multiplier informal jobs -> Hub city growth

Hub city growth -> Housing water traffic dualism

Planning transit skilling -> Ease Housing water traffic dualism keep Engineers BPO women services

Conclusion

- Pair IT growth with public rental housing, lake and aquifer protection, mass transit, and skilling for local youth, so the hub is a city, not only a campus.

IT-hub cities such as Bengaluru, Hyderabad, Pune, and Gurugram opened large new streams of skilled and multiplier work. They also created housing, water, traffic, e-waste, and dual-labour problems that mill towns never had in this form. The statement stands: new avenues and new urban wounds arrived together.

Open WRAP page — <https://wrapexams.com/upsc/mains-answers/gs-1/2017/the-growth-of-cities-as-i-t-hubs-has-opened-up-new-avenues-of-employment-but-has-also-created-new-problems-substantiate-this-statement-with-examples-250-words/>

Compiled answer key

Last pages of this pack. Each question links to the WRAP model answer on wrapexams.com.

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Q1 10 marks	Q2 10 marks	Q3 10 marks	Q4 10 marks
Q5 10 marks	Q6 10 marks	Q7 10 marks	Q8 10 marks
Q9 10 marks	Q10 10 marks	Q11 15 marks	Q12 15 marks
Q13 15 marks	Q14 15 marks	Q15 15 marks	Q16 15 marks
Q17 15 marks	Q18 15 marks	Q19 15 marks	Q20 15 marks

Question-wise key

Q1 · 10 marks Solution

Q2 · 10 marks Solution

Q3 · 10 marks Solution

Q4 · 10 marks Solution

Q5 · 10 marks Solution

Q6 · 10 marks Solution

Q7 · 10 marks Solution

Q8 · 10 marks Solution

Q9 · 10 marks Solution

Q10 · 10 marks Solution

Q11 · 15 marks Solution

Q12 · 15 marks Solution

Q13 · 15 marks Solution

Q14 · 15 marks Solution

Q15 · 15 marks Solution

Q16 · 15 marks Solution

Q17 · 15 marks Solution

Q18 · 15 marks Solution

Q19 · 15 marks Solution

Q20 · 15 marks Solution

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