

Q1.

Discuss in the light of Project Mausam, how did monsoon winds shape ancient Indian maritime trade routes across the Indian Ocean?

Word limit: 150 words

10 marks

Do not write
in this
margin.

Q1.

Question 1 - continued

Do not write
in this
margin.

Q2.

Critically analyse how the interpretation of 'consultation' as 'concurrence' in the Three Judges Cases altered the constitutional balance between the executive and the judiciary.

Word limit: 250 words

15 marks

Do not write
in this
margin.

Q2.

Question 2 - continued

Do not write
in this
margin.

Q2.

Question 2 - continued

Do not write
in this
margin.

Q3.

Critically discuss how targeting skill development in conflict-ridden regions can promote social justice. How does prioritizing women's participation in programmes like Roshni foster local inclusive growth?

Word limit: 250 words

15 marks

Do not write
in this
margin.

Q3.

Question 3 - continued

Do not write
in this
margin.

Q3.

Question 3 - continued

Do not write
in this
margin.

Q4.

Critically discuss: Why does a title-deed-based AgriStack risk excluding tenant farmers and women cultivators? Point out alternative verification mechanisms to ensure social justice.

Word limit: 250 words

15 marks

Do not write
in this
margin.

Q4.

Question 4 - continued

Do not write
in this
margin.

Q4.

Question 4 - continued

Do not write
in this
margin.

Q5.

Explain how the clinical distinction between psychiatry and psychology shapes public health interventions. Why is a multidisciplinary approach necessary to address India's burgeoning mental health crisis?

Word limit: 150 words

10 marks

Do not write
in this
margin.

Q5.

Question 5 - continued

Do not write
in this
margin.

Q6.

Critically examine how community-based mental healthcare addresses the shortcomings of institutionalization in India. Why is a decentralized "continuum of care" model essential for social integration?

Word limit: 250 words

15 marks

Do not write
in this
margin.

Q6.

Question 6 - continued

Do not write
in this
margin.

Q6.

Question 6 - continued

Do not write
in this
margin.

Q7.

How do women-targeted cash transfers alter intra-household decision-making dynamics? Critically examine their efficacy compared to structural livelihood creation in rural India.

Word limit: 250 words

15 marks

Do not write
in this
margin.

Q7.

Question 7 - continued

Do not write
in this
margin.

Q7.

Question 7 - continued

Do not write
in this
margin.

Q8.

Discuss in the light of the 1967 Outer Space Treaty why the lack of binding regulations on non-kinetic space warfare threatens global strategic stability. How can this gap be bridged?

Word limit: 250 words

15 marks

Do not write
in this
margin.

Q8.

Question 8 - continued

Do not write
in this
margin.

Q8.

Question 8 - continued

Do not write
in this
margin.

Q9.

Critically analyse why cultural diplomacy is increasingly utilized as a strategic tool to bridge geopolitical divergences within non-Western alignments like the BRICS bloc.

Word limit: 250 words

15 marks

Do not write
in this
margin.

Q9.

Question 9 - continued

Do not write
in this
margin.

Q9.

Question 9 - continued

Do not write
in this
margin.

Q10.

Critically analyse the governance challenges arising from the commercialization of low-Earth orbit by private tech conglomerates. What regulatory mechanisms are needed to ensure equitable space access?

Word limit: 250 words

15 marks

Do not write
in this
margin.

Q10.

Question 10 - continued

Do not write
in this
margin.

Q10.

Question 10 - continued

Do not write
in this
margin.

Q11.

Critically discuss why India's non-reciprocal, demand-driven development partnership model is preferred by the Global South over traditional North-South official development assistance.

Word limit: 250 words

15 marks

Do not write
in this
margin.

Q11.	Question 11 - continued	Do not write in this margin.
-------------	-------------------------	------------------------------------

Q11.

Question 11 - continued

Do not write
in this
margin.

Q12.

Explain how the New Development Bank mobilizes resources for emerging economies. Why is it considered a departure from traditional Bretton Woods institutions?

Word limit: 150 words

10 marks

Do not write
in this
margin.

Q12.

Question 12 - continued

Do not write
in this
margin.

Q13.

Explain how active microwave remote sensing systems like SAR overcome the limitations of passive sensors in border surveillance and disaster monitoring. Underline the challenges in their deployment.

Word limit: 150 words

10 marks

Do not write
in this
margin.

Q13.

Question 13 - continued

Do not write
in this
margin.

Q14.

Explain how sub-kelvin dilution refrigeration differs fundamentally from conventional space cryogenics. Why is this distinction crucial for designing precision quantum sensors?

Word limit: 150 words

10 marks

Do not write
in this
margin.

Q14.

Question 14 - continued

Do not write
in this
margin.

Q15.

Point out the technical challenges of using optical inter-satellite links over conventional radio-frequency systems. Why is precise pointing accuracy critical for laser communication in space?

Word limit: 150 words

10 marks

Do not write
in this
margin.

Q15.

Question 15 - continued

Do not write
in this
margin.

Q16.

Critically discuss why prototyping on FPGAs before ASIC manufacturing is crucial for chip design. How does this methodology reduce development failures in strategic electronic applications?

Word limit: 150 words

10 marks

Do not write
in this
margin.

Q16.

Question 16 - continued

Do not write
in this
margin.

Q17.

What are the technological advantages of 'push-pull' locomotive configurations over conventional traction systems? Explain how this mechanism improves energy efficiency and turnaround time.

Word limit: 150 words

10 marks

Do not write
in this
margin.

Q17.

Question 17 - continued

Do not write
in this
margin.

Q18.

Explain the scientific risks of superpotency in endocrine drugs like thyroid hormone replacements. How do pharmacopoeia standards ensure therapeutic equivalence and limit adverse physiological impacts?

Word limit: 150 words

10 marks

Do not write
in this
margin.

Q18.

Question 18 - continued

Do not write
in this
margin.

Q19. Explain how microbial fermentation and polymerisation synthesize Polylactic Acid (PLA). Why does its biodegradation require industrial composting rather than open environmental conditions?

Word limit: 150 words

10 marks

Do not write
in this
margin.

Q19.

Question 19 - continued

Do not write
in this
margin.

Q20. Why is the integration of Synthetic Aperture Radar (SAR) and Electro-optical (EO) imaging considered a game-changer for Earth observation? Critically analyse its strategic and civilian applications.

Word limit: 250 words

15 marks

Do not write
in this
margin.

Q20.

Question 20 - continued

Do not write
in this
margin.

Q20.

Question 20 - continued

Do not write
in this
margin.