

GENERAL STUDIES**Time Allowed : Three Hours****Maximum Marks 100****INSTRUCTIONS**

Candidates should attempt ALL questions, unless otherwise directed.

The number of marks carried by each question is indicated for the question.

Answers must be written only in ENGLISH.

Important note : The question paper contains an outline map of India. This is to be detached carefully from the question paper and attached firmly to the answer book while attempting Question No. 4. Do not write your roll number or name on the map.

1. Answer any *five* of the following, in about 75 words each : 5×5=25
- (a) What is a Breeder Reactor ? Comment briefly on its main features and its significance for India's nuclear energy programme.
- (b) Outline the socio-economic aspects of the Indian Constitution, mentioning the relevant Articles.
- (c) Explain the factors that cause a Tsunami.

- (d) What are transgenic crops ? Give a few examples and comment briefly on their benefits and perceived risks, if any.
- (e) What is the government's policy towards Indian diaspora ? Comment on whether it is beneficial to the country, and if so, how.
- (f) Give an account of participatory watershed management in the country.

2. Write briefly on any *five* of the following (in about 30 words each) : 2×5=10

- (a) What is BEE rating and what is it used for ?
- (b) What is biological oxygen demand ? What does a high value of BOD indicate ?
- (c) What are nutraceuticals ? Give a few examples.
- (d) Where would you find a catalytic converter ? What does it do ?
- (e) What is a charge-coupled device ? What are its main advantages over photographic film ?
- (f) What are biodegradable plastics ? What are their important applications ?

3. Write on any **five** of the following (in about 30 words each) :

2×5=10

- (a) Pir Muridi
- (b) Swami Dayanand's contributions towards the upliftment of women
- (c) Nayankar System
- (d) The Wavell Plan
- (e) Valentine Chirol
- (f) 'Bagha' Jatin Mukherjee

4. Show any **five** of the following places on the outline map of India that is attached to your question paper. *(The map must then be detached carefully from the question paper and attached to your answer book firmly.)* On your answer book, write about the significance of the five places marked by you, in about 20 words each :

(1+1)×5=10

- (a) Gurushikhar
- (b) Mawsynram
- (c) Simlipal
- (d) Doodhna Lake
- (e) Malira Point
- (f) Annaimudi
- (g) Dantewada

5. Explain any **five** of the following terms, in about 30 words each : $2 \times 5 = 10$
- (a) Exosphere
 - (b) Isobath
 - (c) Antemeridian
 - (d) Glacier Budget
 - (e) Supernova
 - (f) Anti Collision Device (ACD)
6. Answer any **eight** of the following, in about 35 words each : $2 \frac{1}{2} \times 8 = 20$
- (a) Explain the role of the IAEA.
 - (b) Highlight the Articles of the Constitution that provide safeguards to minorities.
 - (c) What is the 'Look East Policy' of the Government of India ?
 - (d) What is the present system of appointment of Judges of High Courts ?
 - (e) What are the different modes through which the UPSC recommends candidates for Government service ?
 - (f) What is a 'letter rogatory' ?
 - (g) In the context of computer software, distinguish between a 'virus', a 'worm', and a 'Trojan Horse'.
 - (h) What is 'fuzzy logic' and what are its important applications ?
 - (i) What are 'free radicals' in the body and what are their effects ?
 - (j) What are the highlights of the recent Indo-China agreement on climate change issues ?

7. Mention what the following are in not more than a sentence or two each : $1 \times 10 = 10$

- (a) KALPANA-I
- (b) Theodolite
- (c) Isthmus
- (d) Geosyncline
- (e) 'Willy-willy'
- (f) 'Pietra dura' work
- (g) International Date Line
- (h) Nag ATGM
- (i) Islets of Langerhans
- (j) Sea of Tranquility

8. Why are the following in the news recently ? (Answer to each should be in a sentence or two only) : $1 \times 5 = 5$

- (a) Sitara Devi
- (b) Sharad Goekar
- (c) Ignatius Tinnery
- (d) Nandan Nilekani
- (e) Juan Martin del Potro

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