

CCE(M)/GS-III/10/2024
GENERAL STUDIES
(PAPER—III)

Time : 3 hours]

[Full Marks 250

Please read each of the following instructions carefully before attempting the questions :

- (i) There are **twenty** questions printed in English.
- (ii) **All** questions are compulsory.
- (iii) The number of marks carried by a question/part is indicated against it.
- (iv) Word limit in questions, wherever specified, should be adhered to.
- (v) Any page or portion of the page left blank in the Question-cum-Answer Booklet must be clearly struck off.

1. Explain the concept of inclusive growth. Discuss the policy measures implemented by the Indian Government to promote inclusive growth and uplift marginalized sections of society. 10
2. What is the Output-Outcome Monitoring Framework? Highlight its key benefits in enhancing governance's effectiveness in India. 10
3. Define animal rearing. Evaluate the recent policy initiatives introduced by the Indian Government to unlock the untapped potential of the fishing sector. 10
4. Describe the Hybrid Annuity Model in the context of national highway projects in India. Explain its key features and significance. 10
5. Discuss the economic significance of the food processing sector in India, emphasizing its role in growth and development. 10
6. Define buffer stock. Analyze the challenges and benefits associated with maintaining buffer stocks in India. 15
7. The new industrial policy is often regarded more as a process than a fixed policy. Elaborate on this perspective with suitable arguments. 1

8. What were the critical factors that contributed to the success of land reforms in certain regions of India? Provide a detailed discussion. 15
9. Evaluate the development and progress made by India in the field of solar energy. 10
10. Make a roadmap for the development of disaster management plans in India highlighting the role of local bodies. 15
11. What are the instruments of the Government for the conservation of biodiversity? Give examples of a few successful conservation attempts. 15
12. What are the challenges of waste management in hilly areas? How do the guidelines on waste management provide a way to the possible solutions? 15
13. Explain the different types of irrigation systems commonly used in Indian agriculture. Also, discuss the issues and constraints related to the storage, transport and marketing of agricultural produce. How can e-technology address these challenges? 15
14. India's internal security threat is less territorial and more social in nature. Discuss. 10
15. What kind of challenges may climate change pose to internal security in India? 10
16. Do you think that a more decentralized form of disaster preparedness can be more effective than a centralized mechanism? Give examples. 10
17. (a) What is meant by nanotechnology?
(b) What are the typical sizes of systems that are dealt with while dealing with the subject of nanotechnology?
(c) Name two areas that find direct application of nanotechnology. Give two examples.
(d) How has nanotechnology contributed to the arrest of Covid-19 Pandemic? Give concrete examples where they have been used.
(e) When was the Nano Mission launched in India? What was the initial budget? When was nano India initiative constituted? What were the primary objectives?
2×5=10

18. (a) Match the Nobel Laureates of Indian origin (including those who are citizens of other countries) with their broad fields of research.

Name	Field of research
C. V. Raman	Chemistry
Har Gobind Khorana	Physics
Subrahmanyam Chandrasekhar	Medicine
Venkatraman Ramakrishnan	Economics
Abhijit Banerjee	Physics

- (b) A cross between two tall (T) plants resulted in offsprings of a few dwarf (t) plants. What would be the genotype of both the parents?
- (c) For certain organisms, a genetic survey reveals that some of them have 17 chromosomes and the rest have 18 chromosomes. Which of them are males and which are the females? Why?
- (d) Gender of a baby in humans is decided by the father. Justify the statement.

$$10+2+2+1=15$$

19. (a) Name three personalities who made significant contributions to science and technology in each of ancient and modern India.

(b) Name at least 5 milestones achieved by India in the field of space exploration.

(c) What is Tokamak? What are the objectives of Tokamak?

$$6+5+4=15$$

20. (a) What is hard water? Why does it require more water to wash clothes with hard water?

(b) Why does blue litmus paper turn red in acid?

(c) Mirages are seen in deserts especially on hot summer days. Which property of light is responsible for this?

(d) How do fish survive in winter in the polar countries when the entire lake is frozen?

(e) Why is a tropical climate able to support greater biodiversity of species? Which activity, if not taken care of, may cause loss of biodiversity?

$$3 \times 5 = 15$$

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