

INSIGHT GS MAINS TEST SERIES

GENERAL STUDIES

TEST - IX

BIODIVERSITY AND SCIENCE & TECHNOLOGY

Time Allowed: Three Hours

Maximum Marks: 250

QUESTION PAPER SPECIFIC INSTRUCTIONS

(Please read each of the following instructions carefully before attempting questions)

There are **TWENTY** questions printed in **ENGLISH**. All the questions are compulsory.

The number of marks carried by a question/part is indicated against it.

Answers must be written in the medium authorized in the Admission Certificate which must be stated clearly on the cover of this Question-cum-Answer (QCA) Booklet in the space provided. No marks will be given for answers written in medium other than the authorized one.

Word limit in questions, wherever specified, should be adhered to.

Any page or portion of the page left blank in the Question-cum-Answer Booklet must be clearly struck off.

Answer all the following questions. Each question is to be answered in not more than 200 words. Each question carries equal marks.

1. A major challenge before Indian agriculture is to develop low input-high output agriculture that cannot be achieved without technology. In this light, discuss potentials of GM crops as the vehicle of second green revolution in India. Also, discuss the challenges related to GMO crops with special reference to Indian agriculture. 12½
2. Paris Agreement to mitigate climate change was followed by another major global agreement - Kigali Agreement. Compare both the agreements. Examine the implications of Kigali Agreement on India. 12½
3. The State of Global Air Report 2017 reminds Indian policy makers about deteriorating health of its citizen due to air pollution. What are the reasons for such an alarming level of CO₂ concentration level being released in the atmosphere? Suggest some measures to reduce air pollution. 12½
4. "Many ecologist like Madhav Gadgil have recommended for declaration of entire Western Ghats as Eco-Sensitive Zone whereas scientist like Kasturi Rangan have recommended 1/3rd of the Western Ghats to be declared as Eco-Sensitive Zone". In the light of the above statement, critically comment on the issues involved in declaring the Western Ghats as an Ecologically Sensitive Zone. 12½
5. Stubble burning is a common practice followed by farmers in the Northern States in India. What are the reasons for the same? How can this practice be discouraged? 12½
6. The mass coral bleaching of 2016 is an indicator of the ill-effects of global warming on natural ecosystems. In the context of this statement, analyse the various causes of coral bleaching. 12½

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7. The recent oil spill in Chennai has created panic among locals and the officials are now gearing up for possible challenges to the environment in near future. What do you understand by Oil Spill? Discuss its impact on marine life and livelihoods of coastal communities. 12½
8. A new Act related to Compensatory Afforestation has been passed by the Parliament. What are the major issues related to compensatory afforestation in India? To what extent, this new legislation will address these issues? 12½
9. What is Aquaponics? How it is better as compared to conventional agriculture practices? Analyse its potential in tackling climate change in agriculture. 12½
10. How the introduction of Bullet Trains and Hyperloop Technologies will become an engine of economic transformation in India? Discuss the challenges associated with it. 12½
11. Recently, the Government has set up a task force on A.I. (Artificial intelligence) for 'India's Economic Transformation'. What do you mean by Artificial Intelligence? Discuss the potential of AI in bringing Fourth Industrial Revolution along with the concerns being raised. 12½
12. The recently launched program named Innovate in India (i3) is anticipated to be a game changer for the Indian Bio-pharmaceutical industry. Comment. 12½
13. Sri Lanka was certified malaria-free by the WHO while India continues to struggle to end vector borne diseases. The success of Sri Lanka holds many lessons for India. Discuss. 12½
14. Uniqueness of Indian space programme lies with the ability to use the space based platforms for implementing various application programmes, which touches the day to day life of common man. Do you agree? 12½
15. Critically examine the potential of blockchain technology in enhancing the delivery and efficiency of government services in India. 12½
16. What do you understand by the term '3-Parent Baby'? Describe briefly about the process and the issues involved in using this technique. 12½
17. What is the advantage of bio fuel? Demarcate the challenge associated with use of such fuel in India? Suggest some strategies to uplift their use into the development. 12½
18. The National IPR Policy is a vision document that aims to create and exploit synergies between all forms of intellectual property (IP), concerned statutes and agencies. What was the need to frame such policy? Describe its main objectives. 12½
19. What do you know about the Human Genome Project – Write (HGP-Write)? How it is different from the Human Genome Project – Read (HGP-Read)? Briefly mention the expected benefits and concerns related to the HGP-Write? 12½
20. There have been increasing incidences of antimicrobial resistance, which could be more disastrous than fighting a war. Discuss various reasons of antimicrobial resistance. How human activities are supporting the superbugs to thrive? What could be the way to handle this problem? 12½