

Reg. No. :

Question Paper Code : 90999

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2022

Fifth/Seventh Semester

Aeronautical Engineering

OAI 551 – ENVIRONMENT AND AGRICULTURE

(Common to Aerospace Engineering/Automobile Engineering/Civil Engineering/Environmental Engineering/Geoinformatics Engineering/Industrial Engineering/Industrial Engineering and Management/Manufacturing Engineering/Marine Engineering/Material Science and Engineering/Mechanical Engineering/Mechanical Engineering (Sandwich)/ Mechanical and Automation Engineering/Mechatronics Engineering/Production Engineering/Robotics and Automation/Bio Technology/Food Technology/Pharmaceutical Technology)

(Regulations 2017)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What is meant by agricultural biodiversity?
2. Define globalization and its importance.
3. Define modern irrigation systems.
4. What is meant by mechanised agriculture?
5. Difference between water scarcity and water shortages.
6. What you understand by green house effect on global warming?
7. Why is diversity important for ecosystems?
8. What are beneficial insects and its importance in agriculture?
9. What does "soilless agriculture" signify to you?
10. Define sustainable agriculture.

PART B — (5 × 13 = 65 marks)

11. (a) Narrate the land use zones.

Or

(b) Explain types of water pollution and its impact on human health.

12. (a) Discuss about agricultural drainage system and classification.

Or

(b) Explain types of erosion and How to prevent soil erosion.

13. (a) What is desertification? Explain causes of desertification and solutions.

Or

(b) Elucidate how global warming and climate change does affects the ecosystems.

14. (a) GM crops in Indian agriculture. Aboon or bane to mankind? Explain.

Or

(b) Define biotechnology, list the many biotechnology subfields. Describe how biotechnology tools can improve agriculture productivity.

15. (a) Explain National and state level organizations involved in environmental protection.

Or

(b) Write in detail about the techniques adopted for sustainable farming and how to improve soil fertility?

PART C — (1 × 15 = 15 marks)

16. (a) What is watershed? Design a model for integrated watershed management in dryland area.

Or

(b) Analyse the suitability of vertical farming in India in the context of food and nutritional security.