

Class: 12
Subject: Biology
Topic: Strategies for Enhancement
No. of Questions: 25

- Q1. What is meant by the term 'breed'? What are the objectives of animal breeding?
- Q2. Define the term 'surface sterilisation'.
- Q3. Why is quarantine a must before introduction of a plant species from a different country?
- Q4. How are the two following varieties of sugarcane different from each other?
(i) Saccharum barberi
(ii) Saccharum officinarum
- Q5. Millions of chickens were killed in West Bengal, Assam, Orissa and Maharashtra. What was the reason?
- Q6. Write the aims of plant breeding.
- Q7. Why hardening is essential for establishment of plantlets in the field?
- Q8. What is dedifferentiation and redifferentiation?
- Q9. MOET programme has helped in increasing the herd size of the desired variety of cattle. List the steps involved in conducting the programme.
- Q10. What is interspecific hybridization? Explain the term by taking an example of animal breeding.
- Q11. A. What is callus?
B. What do you understand by totipotency of a cell? Name the scientist who coined the term.

- Q12. What are somatic hybrids? How are they produced? What are their common uses?
- Q13. (a) Explain how to overcome inbreeding depression in cattle. (b) List three advantages of inbreeding in cattle. (c) Name an improved breed of cattle.
- Q14. A. Name the ways through which breeders create desired genetic variation in plants.
B List the chief objectives of animal breeding.
C What are the three main approaches of animal breeding.
D What is quarantine?
E. What is emasculation?
- Q15. What is the difference between Pisciculture and Aquaculture? What are the benefits of both kinds of cultures?
- Q16. What is the main reason for low milk production In India? How can it be improved?
- Q17. List the main steps of hybridization in plants. Explain any two of them.
- Q18. What is importance of biofortification? Does this process require genetic engineering?
- Q19. Recently, Anil read in an article that India and China have more than 70% of world livestock and there are about 227 million cattle in India. However, their contribution to the world farm produce is less than 25%. He also read that scientist are busy in developing breeds that are specially adapted for meat production, milk production and agriculture work especially in the hot climate.
Read the above passage and answer the following question:
(i) How can we increase production of dairy products?
(ii) How can we increase milk production?
(iii) What value is displayed by Anil.
- Q20. What is selection? Name the two methods of selection.

- Q21. Hybrid vigour is mostly due to
- Homozygosity of pure characters
 - Superiority of all the genes
 - Heterozygosity
 - Mixing up of cytoplasm of the male with that of female
- Q22. Main objective of production/use of herbicide resistant Genetically modified crops is to:
- Reduce herbicide accumulation in food articles for health safety
 - Eliminate weeds from the field without the use of manual labor
 - Eliminate weeds from the field without the use of herbicides
 - Encourage eco-friendly herbicides
- Q23. In order to obtain disease-free plants through tissue culture techniques, the best method is
- Protoplast culture
 - Anther culture
 - Embryo rescue
 - Meristem culture
- Q24. The dividing and undifferentiated cells are known as
- Embryo
 - Proembryo
 - Callus
 - Primordium
- Q25. Cloning is meant for
- Production of HGH gene in E. coli.
 - To preserve the genotype of organism
 - To replace the original one
 - all of these