

## **BIOLOGY**

### **BOOKS - BETTER CHOICE PUBLICATION**

# STRATEGIES FOR ENHANCEMENT IN FOOD PRODUCTION

**Very Short Answer Type Questions** 

1. Name male and female parents of mule.



2. Define Totipotency.



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**3.** Explain what is meant by 'Biofortification?



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**4.** What is the major advantage of producing plants by micropropagation?



**5.** Which part of the plant is best suited for making virus free plants and why?



**6.** Name two vitamins produced by microbial fermentation.



**7.** Name the enzyme used to dissolve bacterial cell wall.



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8. What is Animal Husbandry?



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**9.** Name a filamentous fungi used in the production of single cell protein.



**10.** Name a green alga used in production of single cell protein.



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11. What are two main componants of cattle feed?



#### **Most Expected Questions**

**1.** Mention the strategy used to increase homozygosity in cattle for desired traits.



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**2.** What are intervarietal and interspecific hybridisations?



3. Name the most common bee species in India.



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4. Fill in the blanks

.....is semi dwarf rice variety.



5. wheat variety having high protein content is



**6.** Why there was sudden rise in wheat and rice production from 1960 to 2000?



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7. Define the term Breed.



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8. Define Somaclone.



9. Define Germplasm.



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10. MOET programme has helped in increasing the herd size of trhe desired variety of cattle.List the steps involved in conducing the programme.



**11.** Name the variety of wheat , which is resistant to leaf stripe rust and hill bunt.



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**12.** Give one variety of following plants with disease resistance. Brassica-White rust



**13.** Give one variety of following plants with disease resistance. Cauliflower-Black rot and Curl blight black rot.



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**14.** Give one variety of following plants with disease resistance. Cowpea-Bacterial blight.



15. Explain inbreeding with an example.



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**16.** Name any two new breeds of cattle evolved at NDRI Karnal.



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17. Write the name of the following:

The most common species of bees suitable for

apiculture.



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**18.** Write the name of the following:

An improved breed of chicken.



19. Identify A, B, C and D in the following table.

Crop	Variety	Resistance to Disease
A	Himgjri	Hill bunt
Brassica	Pusa-Swarnim	В
Cauliflower	C .	Black rot
D	Pusa Komal	Bacterial blight



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## **Short Answer Type Questions**

**1.** Write all you know about sustainable agriculture.



2. What is the difference between conventional agricultural practice and modern agriculture practice?



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**3.** Explain sustainable growth and naturally occuring Pesticide.



**4.** Explain the role of animals as resources.



**5.** Explain the role of animal husbandry in human welfare.



6. Write the application of tissue culture.



**7.** Descirbe any two practices of Sustainable Agriculture.



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**8.** If your family owned a dairy farm, what measures would you undertake to improve the quality and quantity of milk production.



**9.** What is meant by the term 'breed'? What are the objectives of animal breeding?



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**10.** Explain Biomodified foods.



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11. Explain what is meant by 'Biofortification?



12. What is the difference between Inbreeding and Outbreeding.



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13. What is Plant breeding? Write any two objectives of plant breeding.



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**14.** What is the role of apiculture in our lives?

**15.** Explain the role of animal husbandry in human welfare.



**16.** For successful bee-keeping. write two improtant tips.



17. Explain the term: Somaclonal variations



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18. Explain the terms: Suspension culture



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**19.** What is 'Golden rice'? How it can prevent child blindness?



**20.** Define apiary. Name the most suitable specie of honey bee for apiculture.



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**21.** Explain the terms- Totipotency



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22. Explain the terms- Explant





23. Explain the terms:

**Callus** 



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24. Explain the terms:

Micro-propagation



**25.** Define crop improvement. Name the various methods of crop improvement.



**26.** What is white revolution? Name two high milk yielding crossbreeds of cows.



**27.** List the characters of high-yielding varieties of crop.



**28.** Define hybridisation. List main objectives of hybridisation.



**29.** Discuss the role of fishery in enhancement of food production.



**30.** What do you know about Red rot of sugarcane?



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**31.** Define plant tissue culture. Write its two applications.



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**32.** Write the application of tissue culture.

**33.** What is the role of selection in the Crop Improvement?



**34.** What is heterosis? What role has it played in crop productivity?



35. Discuss "Fisheries have an important place in India economy"



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**36.** Write an explanatory note on mutational breeding.



**37.** Write an explanatory note on selection.



**38.** Write a short note on Single Cell Protein.



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39. Explain what is meant by 'Biofortification?



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**40.** Write down the three advantages of high yielding varieties of crops.



**41.** Write three disadvantages of high yielding varieties of crops.



**42.** What is apiculture? How is it important in our lives?



**43.** What is poultry farming? Write its importance. How can you care poultry?



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**44.** What is plant tissu culture? Write about medium aseptic conditions and importance of tissue culture.



**45.** How do fertilizers enrich the fertility of the soil ?



**46.** Explain in brief the role of animal husbandry.



**47.** Write the application of tissue culture.



**48.** Briefly describe the various steps involved in plant breeding.



**49.** What is pisciculture? Write its importance.



**50.** Expand MOET. How it is useful in bringing improvement in cattle. Explain.



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**51.** Name the methods employed in animal breeding. According to you which of the methods is best? Why?



**52.** What is inbreeding depression? What should be done to remove this problem? Give advantages of Inbreeding.



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53. Name the tropical sugarcane variety grown in South India. How has it helped in improving the sugarcane quality grown in North India?

(b) Identify 'a', 'b' and 'c' in the following table-

Crop	Variety	Insect Pests
1. Brassica	Pusa Gaurav	(a)
2. Flat bean	Pusa Sem 2 Pusa Sem 3	(b)
3. (c)	Pusa Sawani Pusa A-4	Shoot and fruit borer



# **Long Answer Type Questions**

**1.** Discuss the role of plant tissue culture in increasing food production.



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**2.** Briefly describe the various steps involved in the development of improved varieties of

Crops.



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**3.** Briefly describe the various types of plants diseases and the measures for their control.



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**4.** What is hybridization ? Give its two main objectives. Describe the technique//procedure of hybridization.



**5.** Describe the methods of animals breeding including breeding of sheep, goat and pig.



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**6.** Name any five hybrid varieties of crop plants which have been developed in India.



**7.** Name the prominent South Indian and North Indian species of sugarcane used for cross breeding. List the desired qualities of the hybrid cane obtained from this cross.



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**8.** What are somatic hybrids? What are their common uses?



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**9.** Explain the process of Somatic hybridisation.



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**10.** Enumerate four objectives for improving the nutritional quality of defferent crops for the health benefits of the human populationby the process of "Biofortificartion."



**11.** What is advantage of genetically modified crop plants?



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12. Mutations are beneficial for plant breeding.

How?



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**13.** Describe briefly about plant breeding for improving food quality.



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