STRATEGIES FOR ENHANCEMENT IN FOOD PRODUCTION

PYQ

AIPMT 2003

- **1.** Which endangered animal is the source of the world's finest, lightest, warmest and most expensive wool–the shahtoosh?
 - (1) Nilgai
- (2) Cheetal
- (3) Kashmiri goat
- (4) Chiru

AIPMT 2005

- **2.** The world's highly prized wool yielding 'Pashmina' breed is
 - (1) Kashmir sheep-Afghan sheep cross
 - (2) Goat
 - (3) Sheep
 - (4) Goat-sheep cross

AIPMT 2007

- **3.** Which one of the following pair is *mismatched*?
 - (1) Bombyx mori Silk
 - (2) *Pila globosa* Pearl
 - (3) *Apis indica* Honey
 - (4) Kenia lacca Lac
- **4.** Which one of the following is a viral disease of poultry?
 - (1) Pasteurellosis
 - (2) Salmonellosis
 - (3) Coryza
 - (4) New Castle disease

AIPMT Pre 2011

- 5. When two unrelated individuals or lines are crossed, the performance of F_1 hybrid is often superior to both its parents. This phenomenon is called:-
 - (1) Heterosis
- (2) Transformation
- (3) Splicing
- (4) Metamorphosis

Re-AIPMT 2015

- **6.** Which of the following diseases is caused by a protozoan?
 - (1) Blastomycosis
- (2) Syphilis
- (3) Influenza
- (4) Babesiosis

- **7.** Outbreeding is an important strategy of animal husbandry because it:
 - (1) exposes harmful recessive genes that are eliminated by selection
 - (2) helps in accumulation of superior genes.
 - (3) is useful in producing purelines of animals.
 - (4) is useful in overcoming inbreeding depression

NEET-I 2016

- **8.** Which is the National Aquatic Animal of India?
 - (1) Gangetic shark
- (2) River dolphin
- (3) Blue whale
- (4) Sea-horse

NEET-II 2016

- 9. Among the following edible fishes, which one is a marine fish having rich source of omega-3 fatty acids?
 - (1) Mrigala
- (2) Mackerel
- (3) Mystus
- (4) Mangur
- **10.** Interspecific hybridization is the mating of:-
 - (1) Superior males and females of different breeds
 - (2) More closely related individuals within same breed for 4-6 generations
 - (3) Animals within same breed without having common ancestors
 - (4) Two different related species

NEET(UG) 2017

- **11.** Homozygous purelines in cattle can be obtained by:
 - (1) mating of unrelated individuals of same breed.
 - (2) mating of individuals of different breed.
 - (3) mating of individuals of different species.
 - (4) mating of related individuals of same breed.

NEET (UG) 2019

- **12.** Select the **incorrect** statement :-
 - (1) Inbreeding increases homozygosity
 - (2) Inbreeding is essential to evolve purelines in any animal
 - (3) Inbreeding selects harmful recessive genes that reduce fertility and productivity
 - (4) Inbreeding helps in accumulation of superior genes and elimination of undesirable genes

NEET (UG) 2019 (Odisha)

- **13.** Select the **incorrect** statement regarding inbreeding
 - (1) Inbreeding helps in elimination of deleterious alleles from the population
 - (2) Inbreeding is necessary to evolve a pureline in any animal
 - (3) Continued inbreeding reduces fertility and leads to inbreeding depression
 - (4) Inbreeding depression can not be overcome by out-crossing

NEET (UG) 2020

- **14.** By which method was a new breed 'Hisardale' of sheep formed by using Bikaneri ewes and Marino rams?
 - (1) Inbreeding
- (2) Out crossing
- (3) Mutational breeding (4) Cross breeding

NEET (UG) 2020 (COVID-19)

- **15.** Inbreeding depression is -
 - (1) Reduced motility and immunity due to close inbreeding
 - (2) Decreased productivity due to mating of superior male and inferior female
 - (3) Decrease in body mass of progeny due to continued close inbreeding
 - (4) Reduced fertility and productivity due to continued close inbreeding

NEET (UG) 2021

- **16.** Which of the following is **not** a step in Multiple Ovulation Embryo Transfer Technology (MOET)?
 - (1) Cow is administered hormone having LH like activity for super ovulation
 - (2) Cow yields about 6-8 eggs at a time
 - (3) Cow is fertilized by artificial insemination
 - (4) Fertilized eggs are transferred to surrogate mothers at 8-32 cell stage
- **17.** Inbreeding is an important strategy of animal breeding because it
 - (1) is necessary to evolve a pure line in any animal
 - (2) helps in accumulation of superior genes
 - (3) helps in elimination of less desirable genes
 - (4) All of the above

NEET (UG) 2022

- **18.** Bee-keeping helps to improve the yield of following crops EXCEPT ______.
 - (1) Sunflower
- (2) Apple
- (3) Mustard
- (4) Jowar
- **19.** The term 'blue Revolution' is related with:
 - (1) Development of water reservoirs
 - (2) Honey and its by products
 - (3) Fishery industry
 - (3) Hancry madacry
 - (4) Various crop plants and their by products

Re-NEET (UG) 2022

- **20.** Two butterfly species are competing for the same nectar of a flower in a garden. To survive and coexist together, they may avoid competition in the same garden by:
 - (1) feeding at the same time
 - (2) choosing different foraging patterns
 - (3) increasing time spent on attacking each other
 - (4) predating on each other

EXERCISE-II (Previous Year Questions)

ANSWER KEY

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Answer	4	2	2	4	1	4	4	2	2	4	4	3	4	4	4
Question	16	17	18	19	20										
Answer	1	4	4	3	2										

EXERCISE - II

AIPMT 2008

- 1. Crop plants grown in monoculture are:-
 - (1) Low in yield
 - (2) Free from intraspecific competition
 - (3) characterised by poor root system
 - (4) highly prone to pests
- **2.** In order to obtain virus-free plants through tissue culture the best method is :-
 - (1) Protoplast culture
 - (2) Embryo rescue
 - (3) Anther culture
 - (4) Meristem culture

AIPMT 2007

- **3.** Which one of the following statements is correct?
 - (1) At present it is not possible to grow maize without chemical fertilizers
 - (2) Extensive use of chemical fertilizers may lead to eutrophication of nearby water bodies
 - (3) Both *Azotobacter* and *Rhizobium* fix atmospheric nitrogen in root nodules of plants
 - (4) Cyanobacteria such as *Anabaena* and *Nostoc* are important mobilizers of phosphates and potassium for plant nutrition in soil

AIPMT 2009

- **4.** Somaclones are obtained by :-
 - (1) Genetic engineering (2) Tissue culture
 - (3) Plant breeding
- (4) Irradiation

AIPMT 2010

- **5.** Breeding of crops with high levels of minerals vitamin and proteins is called:-
 - (1) Biomagnification
 - (2) Micropropagation
 - (3) Somatic hybridisation
 - (4) Biofortification

AIPMT-Pre 2011

- **6.** "Jaya" and "Ratna" developed for green revolution in India are the varieties of :-
 - (1) Maize
- (2) Rice
- (3) Wheat
- (4) Bajra

- 7. 'Himgiri' developed by hybridisation and selection for disease resistance against rust pathogens is a variety of:-
 - (1) Chilli
- (2) Maize
- (3) Sugarcane
- (4) Wheat
- **8.** A collection of plants and seeds having diverse alleles of all the genes of a crop is called:-
 - (1) Herbarium
- (2) Germplasm
- (3) Gene library
- (4) Genome

AIPMT-Pre 2012

- **9.** Which one of the following is a case of wrong matching?
 - (1) Micropropagation In-vitro production of plants in large numbers
 - (2) Callus-Unorganised mass of cells produced in tissue culture
 - (3) Somatic hybridization Fusion of two diverse cells
 - (4) Vector DNA- Site for t-RNA synthesis
- **10.** Which part would be most suitable for raising virus-free plants for micropropagation?
 - (1) Meristem
- (2) Node
- (3) Bark
- (4) Vascular tissue

AIPMT-Mains 2012

- **11.** Green revolution in India occurred during :-
 - (1) 1980's
- (2) 1950's
- (3) 1960's
- (4) 1970's

NEET-UG 2013

- **12.** In plant breeding programme, the entire collection (of plants/seeds) having all the diverse alleles for all genes in a given crop is called:-
 - (1) germplasm collection
 - (2) selection of superior recombinants
 - (3) cross-hybridisation among the selected parents.
 - (4) evaluation and selection of parents

AIPMT 2014

- **13.** To obtain virus free healthy plants from a diseased one by tissue culture technique, which part/parts of the diseased plant will be taken:-
 - (1) Apical meristem only
 - (2) Palisade parenchyma
 - (3) Both apical and axillary meristems
 - (4) Epidermis only

AIPMT 2015

- 14. A technique of micropropagation is :-
 - (1) Somatic embryogenesis
 - (2) Protoplast fusion
 - (3) Embryo rescue
 - (4) Somatic hybridization
- Which of the following enhances or induces 15. fusion of protoplasts?
 - (1) Polyethylene glycol and sodium nitrate
 - (2) IAA and kinetin
 - (3) IAA and gibberellins
 - (4) Sodium chloride and potassium chloride

Re-AIPMT 2015

- 16. A protoplast is a cell:-
 - (1) without cell wall
 - (2) without plasma membrane
 - (3) without nucleus
 - (4) undergoing division

NEET (UG) 2019 (Odisha)

- **17.** In mung bean, resistance to yellow mosaic virus and powdery mildew were brought about by :-
 - (1) Mutation breeding
 - (2) Biofortification
 - (3) Tissue culture
 - (4) Hybridization and selection

NEET (UG) 2021

18. Match List - I with List - II.

	List -I	List :- II				
(a)	Protoplast fusion	(i)	Totipotency			
(b)	Plant tissue culture	(ii)	Pomato			
(c)	Meristem culture	(iii)	Somaclones			
(d)	Micropropagation	(iv)	Virus free			
		(IV)	plants			

Choose the **correct** answer from the options given below.

- (a) (b) (c) (ii)
- (1) (iii) (iv)
- (d) (i)
- (2) (ii) (i)
- (iv) (iii)
- (3) (iii) (iv)

- (i) (ii)
- (4) (iv) (iii) (ii) (i)

- 19. Which of the following is **not** an objective of Biofortification in crops?
 - (1) Improve protein content
 - (2) Improve resistance to diseases
 - (3) Improve vitamin content
 - (4) Improve micronutrient and mineral content

NEET (UG) 2022

- 20. Breeding crops with higher levels of vitamins and minerals or higher proteins and healthier fats is called:
 - (1) Bio-remediation
- (2) Bio-fortification
- (3) Bio-accumulation
- (4) Bio-magnification

Re NEET (UG) 2021

Given below are two statements: one is 21. labelled as Assertion (A) and the other is labelled as Reason (R):

Assertion (A):

Spirulina is a microbe that can be used for reducing environmental pollution.

Reason (R):

Spirulina is a rich source of protein, carbohydrates, fats, minerals and vitamins.

In the light of the above statements, choose the most appropriate answer from the options given below:

- (1) Both (A) and (R) are correct and (R) is the correct explanation of (A)
- (2) Both (A) and (R) are correct but (R) is not the correct explanation of (A)
- (3) **(A)** is correct but **(R)** is not correct
- (4) (A) is not correct but (R) is correct

EXERCISE-II (Previous Year Questions)

ANSWER KEY

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Answer	4	4	2	2	4	2	4	2	4	1	3	1	3	1	1
Question	16	17	18	19	20	21									
Answer	1	1	2	2	2	2									