

Strategies for Enhancement in Food Production

Question 1.

The use of certain chemicals and radiation to change the base sequences of genes of crop plants is termed

- (a) recombinant DNA technology
- (b) transgenic mechanism
- (c) mutation breeding
- (d) gene therapy

Answer:

- (c) mutation breeding

Question 2.

The scientific process by which crop plants are enriched with certain desirable nutrients is called

- (a) crop protection
- (b) breeding
- (c) bio-fortification
- (d) bio-remediation

Answer:

- (c) bio-fortification

Question 3.

The term 'totipotency' refers to the capacity of a

- (a) cell to generate whole plant
- (b) bud to generate whole plant
- (c) seed to germinate
- (d) cell to enlarge in size

Answer:

- (a) cell to generate whole plant

Question 4.

An explant is

- (a) dead plant
- (b) part of the plant
- (c) part of the plant used in tissue culture
- (d) part of the plant that expresses a specific gene

Answer:

- (c) part of the plant used in tissue culture

Question 5.

The biggest constraint of plant breeding is

- (a) availability of desirable gene in the crop and its wild relatives
- (b) infrastructure
- (c) trained manpower
- (d) transfer of genes from unrelated sources

Answer:

- (a) availability of desirable gene in the crop and its wild relatives

Question 6.

Lysine and tryptophan are

- (a) proteins
- (b) non-essential amino acids
- (c) essential amino acids
- (d) aromatic amino acids

Answer:

- (c) essential amino acids

Question 7.

Micropropagation is

- (a) propagation of microbes in vitro
- (b) propagation of plants in vitro
- (c) propagation of cells in vitro
- (d) growing plants on smaller scale

Answer:

- (b) propagation of plants in vitro

Question 8.

Protoplast is

- (a) another name for protoplasm
- (b) an animal cell
- (c) a plant cell without a cell wall
- (d) a plant cell

Answer:

- (c) a plant cell without a cell wall

Question 9.

To isolate protoplast, one needs

- (a) pectinase
- (b) cellulase
- (c) both pectinase and cellulase
- (d) chitinase

Answer:

- (c) both pectinase and cellulase

Question 10.

Which one of the following is a marine fish ?

- (a) Rohu
- (b) Hilsa
- (c) Catla
- (d) Common Carp

Answer:

- (b) Hilsa

Question 11.

Which one of the following products of apiculture is used in cosmetics and polishes ?

- (a) Honey
- (b) Oil
- (c) Wax

(d) Royal jelly

Answer:

(c) Wax

Question 12.

More than 70 percent of livestock population is in

(a) Denmark

(b) India

(c) China

(d) India and China

Answer:

(d) India and China

Question 13.

The agriculture sector of India employs about

(a) 50 percent of the population

(b) 70 percent of the population

(c) 30 percent of the population

(d) 60 percent of the population

Answer:

(d) 60 percent of the population

Question 14.

33 percent of India's (Gross Domestic Product) comes from

(a) industry

(b) agriculture

(c) export

(d) small-scale cottage industries

Answer:

(b) agriculture

Question 15.

A collection of all the alleles of all the genes of a crop plant is called

(a) germplasm collection

(b) protoplasm collection

(c) herbarium

(d) somaclonal collection

Answer:

(a) germplasm collection

Question 16.

Which of the following is the "bird flu virus" ?

(a) H5N1

(b) Haemophilus influenzae

(c) HIV

(d) Rhino virus

Answer:

(a) H5N1

Question 17.

The infectious and contagious bacterial disease that affects cattle, buffaloes, horses, sheep and goats is

- (a) anthrax
- (b) rinderpest
- (c) tick fever
- (d) necrosis

Answer:

- (a) anthrax

Question 18.

Which of the following is an improved variety of chicken ?

- (a) Jersey
- (b) Leghorn
- (c) Himgiri
- (d) Kalyan Sona

Answer:

- (b) Leghorn

Question 19.

Which of the following is a draught breed of Indian cattle ?

- (a) Malvi
- (b) Gir
- (c) Sahiwal
- (d) Deoni

Answer:

- (a) Malvi

Question 20.

Holstein-Frisian, Brown Swiss and Jersey are all well known

- (a) exotic breeds of cow
- (b) exotic breeds of goat
- (c) exotic breeds of poultry
- (d) animal husbandry scientists

Answer:

- (a) exotic breeds of cow

Question 21.

Which one of the following is a breed of cattle ?

- (a) Ayrshire
- (b) Ghagus
- (c) Kadaknath
- (d) Scampi

Answer:

- (a) Ayrshire

Question 22.

Which one of the following poultry birds is not an English breed ?

- (a) Sussex
- (b) Australorp

- (c) Orpington
 - (d) Minorca
- Answer:
- (b) Australorp

Question 23.

High milk yielding cross bred Frieswal cow is the product of

- (a) Brown Swiss × Sahiwal
- (b) Friesian × Sahiwal
- (c) Holstein × Tharparkar
- (d) Brown Swiss × Red sindhi

Answer:

- (b) Friesian × Sahiwal

Question 24.

What strategy would you suggest if a person wants to evolve a pure line in an animal ?

- (a) Cross-breeding
- (b) Inbreeding
- (c) Out-breeding
- (d) artificial insemination

Answer:

- (b) Inbreeding

Question 25.

Which of the following statements is not correct regarding inbreeding ?

- (a) It is the breeding between animals of the same breed
- (b) It decreases homozygosity
- (c) It exposes harmful recessive genes
- (d) It helps in accumulation of superior genes

Answer:

- (b) It decreases homozygosity

Question 26.

Which of the following are common freshwater fishes ?

- (a) Mackerel and rohu
- (b) Rohu, common carp and Catla
- (c) Hilsa and sardine
- (d) None of these

Answer:

- (b) Rohu, common carp and Catla

Question 27.

Which one of the following is a marine fish ?

- (a) Rohu
- (b) Hilsa
- (c) Catla
- (d) Common carp

Answer:

- (b) Hilsa

Question 28.

Which one of the following is an exotic carp species ?

- (a) Labeo rohita
- (b) Crprinus carpio
- (c) Labeo bata
- (d) Cirrhinus mrigals

Answer:

- (b) Crprinus carpio

Question 29.

Aquaculture is the rearing and management of

- (a) molluscs and crustaceans
- (b) only freshwater fishes
- (c) economically useful aquatic plants and animals
- (d) only aquatic plants

Answer:

- (c) economically useful aquatic plants and animals

Question 30.

Aquaculture does not include

- (a) prawns
- (b) fishes
- (c) silkworms
- (d) shell fishery

Answer:

- (c) silkworms

Question 31.

Which of the following is correctly matched ?

- (a) Sericulture – Fish
- (b) Aquaculture – Mosquito
- (c) Apiculture – Honeybee
- (d) Pisciculture – Silkmoth

Answer:

- (c) Apiculture – Honeybee

Question 32.

Germplasm collection is the collection of

- (a) germ cells
- (b) semens
- (c) plants/seeds with all the diverse alleles for all genes
- (d) egg cells

Answer:

- (c) plants/seeds with all the diverse alleles for all genes

Question 33.

Major percentage of India's Gross Domestic Product is constituted by

- (a) industry
- (b) agriculture
- (c) export

(d) small scale cottage industry

Answer:

(b) agriculture

Question 34.

The Noble Laureate, who developed semi-dwarf wheat varieties in Mexico was

(a) Norman E. Borlaug

(b) Herbert Boyer

(c) William Harvey

(d) Typhoid Mary

Answer:

(a) Norman E. Borlaug

Question 35.

Jaya and Ratna are the semi-dwarf varieties of

(a) wheat

(b) rice

(c) cowpea

(d) mustard

Answer:

(b) rice

Question 36.

The term "inbreeding depression" is related to

(a) increased fertility and productivity

(b) increased milk production

(c) reduced fertility & productivity

(d) reduced milk production

Answer:

(c) reduced fertility & productivity

Question 37.

Continued inbreeding, especially close inbreeding generally results in

(a) inbreeding depression

(b) inbreeding stimulation

(c) inbreeding hybridisation

(d) inbreeding mutation

Answer:

(a) inbreeding depression

Question 38.

The breeding carried out between animals of different breeds is called

(a) out-crossing

(b) cross-breeding

(c) inbreeding

(d) both (a) and (b)

Answer:

(b) cross-breeding

Question 39.

Which of the following is an example of a cross-breed ?

- (a) Mule
- (b) Hilsa
- (c) Hisardale
- (d) Sahiwal

Answer:

- (c) Hisardale

Question 40.

Hisardale is a new breed of sheep developed in Punjab by crossing

- (a) Merino ram and Bikaneri ewe
- (b) Assel ram and White leghorn ewe
- (c) Rhode Island ram and White leghorn ewe
- (d) Cochin ram and Ghagus ewe

Answer:

- (a) Merino ram and Bikaneri ewe

Question 41.

Crossing of individuals of two different species to produce a hybrid is called

- (a) interspecific hybridisation
- (b) intervarietal hybridisation
- (c) intergeneric hybridisation
- (d) intravarietal hybridisation

Answer:

- (a) interspecific hybridisation

Question 42.

Artificial insemination involves

- (a) super ovulation
- (b) semen collection
- (c) egg collection
- (d) embryo collection

Answer:

- (b) semen collection

Question 43.

Artificial breeding of cattle is brought about by

- (a) artificial insemination
- (b) super ovulation and embryo transplantation
- (c) MOET
- (d) all of these

Answer:

- (d) all of these

Question 44.

MOET stands for

- (a) Multiple Ovulation and Egg transfer Technology
- (b) Multiple Ovary and Embryo Transfer Technology
- (c) Multiple Ovulation Embryo Transfer Technology

(d) Method of Egg Transfer Technology

Answer:

(c) Multiple Ovulation Embryo Transfer Technology

Question 45.

Multiple ovulation embryo transfer technology is related to

(a) transfer of super embryo

(b) transfer of super eggs

(c) super ovulation and embryo transfer

(d) both (a) and (b)

Answer:

(c) super ovulation and embryo transfer

Question 46.

'Lean meat' is considered to be of high quality because it has

(a) lesser but easily digestible protein

(b) lesser lipid content

(c) more fat that makes the meat softer

(d) longer shelf life due to lesser chances of infection

Answer:

(b) lesser lipid content

Question 47.

In livestock breeding experiments, which of the following stages is transferred to surrogate mothers ?

(a) Unfertilised eggs

(b) Fertilised eggs

(c) 8 to 32 celled embryo

(d) Frozen semen

Answer:

(c) 8 to 32 celled embryo

Question 48.

The term 'apiculture' refers to

(a) tissue culture

(b) pisciculture

(c) bee-keeping

(d) animal-keeping

Answer:

(c) bee-keeping

Question 49.

Which of the following plays a role in indigenous system of medicine ?

(a) Plant breeding

(b) Fisheries

(c) Apiculture

(d) MOET

Answer:

(c) Apiculture

Question 50.

In honey, the main constituent is

- (a) calcium
- (b) sugar
- (c) protein
- (d) water

Answer:

- (b) sugar

Question 51.

Turnip mosaic disease is caused by

- (a) bacteria
- (b) viruses
- (c) nematodes
- (d) fungi

Answer:

- (b) viruses

Question 52.

Which of the following diseases is caused by virus ?

- (a) Tobacco mosaic
- (b) Late blight of potato
- (c) Turnip mosaic
- (d) Both (a) and (c)

Answer:

- (d) Both (a) and (c)

Question 53.

Which of the following is incorrectly matched ?

Disease Causative organism

- (a) Black rot of crucifers Bacteria
- (b) Brown rust of wheat Fungi
- (c) Late blight of potato Virus
- (d) Red rot of sugarcane Fungi

Answer:

- (c) Late blight of potato Virus

Question 54.

Which of the following diseases is caused by bacteria ?

- (a) Tobacco mosaic
- (b) Black rot of crucifers
- (c) Red rot of sugarcane
- (d) Late blight of potato

Answer:

- (b) Black rot of crucifers

Question 55.

Black rust of wheat is caused by

- (a) Puccinia
- (b) Albugo

- (c) Ustilagp
- (d) Cystopus

Answer:

- (a) Puccinia

Question 56.

Which of the following is incorrectly paired ?

- (a) What – Himgiri
- (b) Milch breed – Sahiwal
- (c) Rice – Ratna
- (d) Pusa Komal – Brassica

Answer:

- (d) Pusa Komal – Brassica

Question 57.

The yellow mosaic virus-resistant variety "Parbhani Kranti" belongs to

- (a) bhindi
- (b) barley
- (c) chilli
- (d) cauliflower

Answer:

- (a) bhindi

Question 58.

Hairy leaves of many plants are associated with

- (a) resistance to insect pests
- (b) resistance to viruses
- (c) resistance to fungi
- (d) resistance to bacteria

Answer:

- (a) resistance to insect pests

Question 59.

Resistance to jassids in cotton plants and to cereal leaf beetle in wheat plants is due to

- (a) biochemical characters
- (b) physiological characters
- (c) morphological characters
- (d) none of these

Answer:

- (c) morphological characters

Question 60.

Maize generates resistance against stem borers by having

- (a) low aspartic acid, high nitrogen and sugar content
- (b) low aspartic acid and sugar but high nitrogen content
- (c) high aspartic acid and nitrogen but low sugar content
- (d) high aspartic acid, low nitrogen and sugar content

Answer:

- (d) high aspartic acid, low nitrogen and sugar content

Question 61.

Meristem culture is the culture of

- (a) axillary or apical shoot meristems
- (b) anthers
- (c) plant seeds
- (d) young embryos

Answer:

- (a) axillary or apical shoot meristems

Question 62.

A plant cell without cell wall is called

- (a) proplast
- (b) protoplast
- (c) nucleoplasm
- (d) explant

Answer:

- (b) protoplast

Question 63.

A somatic hybrid between potato and tomato is named as

- (a) bomato
- (b) mopato
- (c) pomato
- (d) topamo

Answer:

- (c) pomato

Question 64.

The enzymes required to obtain protoplast from a plant cell are

- (a) cellulase
- (b) chitinase
- (c) pectinase
- (d) both (a) and (c)

Answer:

- (d) both (a) and (c)

Question 65.

The chances of contracting bird flu from a properly cooked (above 100°C) chicken and egg are

- (a) very high
- (b) high
- (c) moderate
- (d) none

Answer:

- (d) none

Question 66.

A group of animals which are related by descent and share many similarities are referred to as

- (a) breed

- (b) race
- (c) variety
- (d) species

Answer:

- (a) breed

Question 67.

Inbreeding is carried out in animal husbandry because it

- (a) increases vigour
- (b) improves the breed
- (c) increases heterozygosity
- (d) increases homozygosity

Answer:

- (d) increases homozygosity

Question 68.

Sonalikea and Kalyan Sona are varieties of

- (a) wheat
- (b) rice
- (c) millet
- (d) tobacco

Answer:

- (a) wheat

Question 69.

Which one of the following is not a fungal disease?

- (a) Rust of wheat
- (b) Smut of Bajra
- (c) Black rot of crucifers
- (d) Red rot of sugarcane

Answer:

- (c) Black rot of crucifers

Question 70.

Fungicides and antibiotics are chemicals that

- (a) enhance yield and disease resistance
- (b) kill pathogenic fungi and bacteria, respectively
- (c) kill all pathogenic microbes
- (d) kill pathogenic bacteria and fungi respectively

Answer:

- (b) kill pathogenic fungi and bacteria, respectively