

# **BIOLOGY**

# BOOKS - KUMAR PRAKASHAN KENDRA BIOLOGY (GUJRATI ENGLISH)

# STRATEGIES FOR ENHANCEMENT IN FOOD PRODUCTION

Section A Exam Oriented Questions Answers
From Darpan

**1.** Give information about industries included in animal husbandry in short.



2. Explain Dairy industry and its management.



3. Explain about poultry farm management.



4. What is animal breeding? explain.



**5.** Give Information about inbreeding.



**View Text Solution** 

**6.** Explain out breeding.



7. Explain experiments of controlled breeding.



**View Text Solution** 

8. Explain apiculture.



**View Text Solution** 

**9.** Give information about Bee-keeping.



10. Give information about fisheries.



**View Text Solution** 

11. Explain: plant breeding.



**View Text Solution** 

**12.** Describe various steps in breeding a new genetic variety of a crop.



13. Give information about various crops grown and importance of agriculture in India.



**View Text Solution** 

14. How do microorganisms harm the crop?



**15.** Explain methods of breeding for disease resistance.



# **View Text Solution**

**16.** Explain variants or mutation as a method of disease resistance.



**17.** How is plant breeding for developing resistance to insect pests useful?



# **View Text Solution**

**18.** How is plant breeding useful for improved food quality?



View Text Solution

**19.** Give Information about SCP.



20. Explain single cell protein.



**21.** How is tissue culture method useful for crop improvement?



1. In breeding and out breeding



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**2.** Inbreeding is necessary to obtain pure breed.



**3.** Large number of people become victim of hidden hunger in India.



**4.** A bee-hive near the farm/field is advantageous for a farmer.



Section C Objective Question Answers Match The Columns





View Text Solution

2.



**View Text Solution** 

3.





4.



View Text Solution

# Section C Objective Question Answers Explanation Of Terms Definition

1. Breed



# **2.** Blue Revolution



**View Text Solution** 

### 3. Somaclones



**View Text Solution** 

4. Somatic hybridisation



### 5. Totipotency



**View Text Solution** 

# Section C Objective Question Answers Give Full Names

#### 1. MOET



**View Text Solution** 

**2.** IRRI



3. TARI



**4.** SCP



Section D Textual Exercise

**1.** Explain in brief the role of animal husbandary in human welfare.



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



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



# **View Text Solution**

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



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



**View Text Solution** 

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



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



**View Text Solution** 

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



**9.** Find out what the various components of the medium used for propagation of an explant in vitro are ?



**View Text Solution** 

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



# Section E Solution Of Ncert Exemplar Multiple Choice Questions Mcqs

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

A. Very high

B. High

C. Moderate

D. None

#### **Answer: D**



# **View Text Solution**

**2.** 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**



- **3.** Inbreeding is carried out in animal husbandry because it
  - A. Increases vigour
  - B. Improves the breed
  - C. Increases heterozygosity
  - D. Increases homozygosity

#### **Answer: D**



# **View Text Solution**

- 4. Sonalika and Kalyan Sona are varieties of
  - A. Wheat
  - B. Rice
  - C. Millet
  - D. Tobacco

**Answer: A** 

**5.** 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** 



**6.** In virus infected plants the meristematic tissues in both apical and axillary buds are free of virus because

- A. The dividing cells are virus resistant
- B. Meristems have antiviral compounds
- C. The cell division of meristems are faster

than the rate of viral multiplication

D. Viruses cannot multiply within meristem cell(s).

**Answer: C** 



**View Text Solution** 

**7.** Several South Indian states raise 2-3 crops of rice annually. The agronomic feature that makes this possible is because of

A. Shorter rice plant

- B. Better irrigation facilities
- C. Early yielding rice variety
- D. Disease resistant rice variety

#### **Answer: C**



**View Text Solution** 

**8.** Which one of the following combination would a sugarcane farmer look for in the sugarcane crop?

A. Thick stem, long intenddes, high sugar content and disease resistant

B. Thick stem, high sugar content and profuse flowering

C. Thick stem, short internodes, high sugar content, discasc resistant

D. Thick stem, low sugar content, disease resistant

#### **Answer: A**



- **9.** 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**



# **View Text Solution**

**10.** 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**



# **View Text Solution**

**11.** 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**



- **12.** 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**



- **13.** Given below are a few statements regarding somatic hybridization. Choose the correct statements.
- (i) Protoplasts of different cells of the same plant are fused.
- (ii) Protoplasts from cells of different species can be fused.
- (iii) Treatment of cells with cellulase and

pectinase is mandatory.

(iv) The hybrid protoplast contains characters of only one parental protoplast,

- A. (i) and (iii)
- B. (i) and (ii)
- C. (i) and (iv)
- D. (ii) and (iv)

**Answer: D** 



14. 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**



15. 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** 

- 16. Lysine and tryptophan are -
  - A. Proteins
  - B. Non-essential amino acids
  - C. Essential amino acids
  - D. Aromatic amino acids

#### **Answer: C**



### 17. Micro-propagation 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**



- 18. 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**



# 19. To isolate protoplast one needs

- A. Pectinase
- B. Cellulase
- C. Both pectinase and cellulase
- D. Chitinase

#### **Answer: C**



20. Which one of the following is a marine fish?

A. Rohu

B. Hilsa

C. Catla

D. Common Carp

**Answer: B** 



<b>21.</b> Which	one	of	the	following	products	of
apiculture is used in cosmetics and polishes?						

- A. Honey
- B. Oil
- C. Wax
- D. Royal jell

#### **Answer: C**



**22.** More than 70 per cent of livestock population is in -

- A. Denmark
- B. India
- C. China
- D. India and China

**Answer: D** 



**23.** The agriculture sector of India employs about

A. 50 per cent of the population

B. 70 per cent of the population

C. 30 per cent of the population

D. 60 per cent of the population

#### **Answer: D**



24. 33 per cent of India.s (Gross Domestic

Product) comes from

A. Industry

B. Agriculture

C. Export

D. Small-scale cottage industries.

**Answer: B** 



**25.** 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** 



# Section E Solution Of Ncert Exemplar Very Short Answer Type Questions Vsqs

**1.** Millions of chicken were killed in West Bengal, Assam, Orissa and Maharashtra recently, What was the reason?



2. Can gamma rays used for crop improvement programmes prove to be harmful for health?

Discuss.

**3.** In animal husbandry, if two closely related animals are mated for a few generations, it results in loss of fertility and vigour. Why is this so ?



**4.** In the area of plant breeding, it is important not only to preserve the seeds of the variety

being cultivated, but also to preserve all its wild relatives. Explain with a suitable example.



**View Text Solution** 

**5.** Name a man-made cereal. Trace how it was developed and where it is used ?



**View Text Solution** 

6. Fill in the blanks:



**7.** A few statements are given below followed by a set of terms in a box. Pick the correct term and write it against the appropriate statement.





8. What is meant hy .hidden hunger.?



**9.** Why are plants obtained by protoplast culture called somatic hybrids?



View Text Solution

10. What is protoplast fusion?



**11.** Why is it easier to culture meristems Compared to permanent tissues?



# **View Text Solution**

**12.** Why are proteins synthesised from Spirulina called single cell proteins?



**13.** A person who is allergic to pulses was advised to take a capsule of Spirulina daily. Give the reasons for the advice.



**View Text Solution** 

**14.** What is aquaculture? Give example of an animal that can be multiplied by aquaculture.



**15.** What are the duties of a veterinary doctor in management of a poultry farm ?



**View Text Solution** 

**16.** Would it be wrong to call plants obtained through micropropagation as clones.?



**17.** How is a somatic hybrid different from a hybrid?



# **View Text Solution**

**18.** What is emasculation? Why and when is it done?



**19.** Discuss the two main limitations of plant hybridization programme.



**View Text Solution** 

**20.** Interspecific crosses are rare in nature and intergeneric crosses almost unknown. Why?



**21.** Differentiate between pisciculture and aquaculture.



**View Text Solution** 

22. Give two important contributions of Dr.

M.S. Swaminathan.



23. The term .desirable trait. can mean different things for different plants. Justify the statement with suitable examples.



View Text Solution

# Section E Solution Of Ncert Exemplar Short Answer Type Questions

**1.** You are planning to set up a Dairy Farm.

Describe the various aspects you would consider before you start the venture.

**2.** It is said, that diseases are spreading faster due to globalisation and increased movement of people. Justify the statement taking the example of  $H_5N_1$  virus.



3. Explain the concept of the Blue Revolution.



**4.** A farmer was facing the problem of low yield from his farm. He was advised to keep a beehive in the vicinity. Why? How would the beehive help in enhancing yield?



**View Text Solution** 

**5.** Life style diseases are increasing alarmingly in India. We are also dealing with large scale malnutrition in the population. Is there any

method by which we can address both problems together?



**6.** How can we improve the success rate of fertilisation during artificial insemination in animal husbandry programmes?



**7.** What is meant by germplasm collection ? What are its benefits ?



**View Text Solution** 

**8.** Name the improved characteristics of wheat that helped India to achieve green revolution.



**9.** Suggest some of the features of plants that will prevent insect and pest infestation.



# **View Text Solution**

**10.** It is easier to culture plant cells in vitro as compared to animal cells. Why?



**11.** The culture medium (nutrient medium) can be referred to as a .highly enriched laboratory soil.. Justify the statement.



**View Text Solution** 

**12.** Is there any relationship between dedifferentiation and the higher degree of success achieved in plant tissue culture experiments?



**13.** Give me a living cell of any plant and I will give you a thousand plants of the same type. Is this only a slogan or is it scientifically possible? Write your comments and justify them.



**View Text Solution** 

**14.** What is the difference between a breed and a species ? Give an example for each category.

**15.** Plants raised through tissue cultures are clones of the parent. plant. Discuss the utility of these plants.



**16.** Discuss the importance of testing of new plant varieties in a geographically vast country like India.

**17.** Define the term .stress. for plants. Discuss briefly the two types of stress encountered by plants.



**18.** Discuss natural selection and artificial selection. What are the implications of the latter on the process of evolution?



**19.** Discuss briefly how pure lines are created in animal husbandry.



# **View Text Solution**

**20.** What are the physical barriers of a cell in the protoplast fusion experiment? How are the barriers overcome?



**21.** Give few examples of biofortified crops. What benefits do they offer to the society?



**View Text Solution** 

Section E Solution Of Ncert Exemplar Long
Answer Type Questions

**1.** The shift from grain to meat diets creates more demands for cereals. Why?



**2.** A250 kg cow produces 200 g of protein per day but 250 g of Methylophillus methylotrophus can produce 25 tonnes of protein. Name this emerging area of research. Explain its benefits.



**3.** What are the advantages of tissue culture methods over conventional method of plant breeding in crop improvement programmes ?



4. Modem methods of breeding animals and plants can alleviate the global food shortage.. Comment on the statement and give suitable examples.



**View Text Solution** 

5. Does apiculture offer multiple advantages to farmers? List its advantages if it is located near a place of commercial flower Cultivation.



**6.** Mutations are beneficial for plant breeding. Taking an example, justify the statement.



**7.** Discuss briefly the technology that made us self-sufficient in food production.



**8.** Discuss how the property of plant celll totipotency has been utilised for plant propagation and improvement



**View Text Solution** 

**9.** What are three options to increase food production? Discuss each giving the salient features, merits and demerits.



# Section F Multiple Choice Questions Mcqs Mcqs From Darpan Based On Textbook

1. The important by product of apiculture.

A. Sugar

B. Medicine

C. Wax

D. Fertilizer

**Answer: C** 



2. Name a fresh water fish.

A. Hilsa

B. Sardin

C. Major carp

D. Macrel

**Answer: C** 



3.	What	is	not	avai	lable	e in	explan	t?
----	------	----	-----	------	-------	------	--------	----

- A. Cell
- B. Tissue
- C. Hormone
- D. Organ

## **Answer: C**



**4.** What is the main objective of improved breed?

A. To enhance quality

B. To increase amount of vitamin

C. To increase the amount of oil

D. Above three

**Answer: D** 



- A. Lipid
- B. Carbo hydrates
- C. Mineral elements
- D. Protein

## **Answer: D**



**6.** In which type of hybridisation, the proportion of homozygosity increases ?

A. Inbreeding

B. Out breeding

C. Interspecific hybridisation

D. Intraspecific hybridisation

**Answer: A** 



7. Who is known as father of white revolution?					
A. Fluxale					
B. Kurian					
C. Bentham					
D. Hooks					
Answer: B					
View Text Solution					
8. Where is IVRI located at ?					

A. Izzatnagar B. Madras C. Hydrabad D. Muzzafarnagar

## **Answer: A**



- 9. Identify the correct pair
  - A. Apiculture Honeybee

- B. Sericulture Fish
- C. Pisciculture Silkworm
- D. Aquaculture Lakh worm

#### **Answer: A**



**View Text Solution** 

**10.** Which of the following is the real product of Honeybee?

A. Pullen

- B. Honey
- C. Wax
- D. Preplish

#### **Answer: B**



- 11. Name the disease caused by fungi in plants.
  - A. Black rot
  - B. Turnip mosaic

- C. Tobaco mosaic
- D. Rust

### **Answer: D**



- **12.** Which disease caused by bacteria in plants?
  - A. Red rot
  - B. Lat blight
  - C. Brown rust

D. Black rot

#### **Answer: D**



## **View Text Solution**

**13.** The breed of chicken reared for eggs is called -

A. Broiler

B. Deoni

C. Murrah

D. Layer

#### **Answer: D**



- **14.** Which main dairy is located in Anand?
  - A. Sagar dairy
  - B. Dudhsagar dairy
  - C. Amul dairy
  - D. Banas dairy

#### **Answer: C**



## **View Text Solution**

**15.** In which industry people of India do not show commercial attitude ?

- A. Poultry
- B. Beekeeping
- C. Fishery
- D. Dairy industry

#### **Answer: B**



**16.** which one of the following is undifferentiated cell?

- A. Sperm cell
- B. egg cell
- C. pollen cell
- D. stem cell

#### **Answer: D**



**17.** Which growth promoters are added in the liquid medium for suspension culture ?

- A. Auxin and Cytokinine
- B. Auxin and Gibberellin
- C. 2-4 D
- D. Gibberellin and Cytokinine

#### **Answer: C**



## **View Text Solution**

## 18. In outbreeding......

- A. A superior male of any one species mate with a female of same species.
- B. A superior male of any one species mate with a female of other species.

C. A superior male mate with interior female of same species.

D. Different species of male and female mate

## **Answer: B**



19. "From a developing seed, the small embryo is removed and cultured on media." this happens in which method?

- A. Callus culture
- **B.** Suspension Culture
- C. Embryo Culture
- D. Explant

### **Answer: C**



**View Text Solution** 

**20.** Which of the following is incorrectly matched?

- A. Callus mass of undifferentiated cells.
- B. Embryo culture agar-agar gel is used
- C. Suspension culture cell masses are suspended in a liquid medium.
- D. Plant tissue culture It is carried out in controlled condition in laboratory.

### Answer: B



**21.** S-Naturally, milk is for the nutrition of its young ones.

R- The human being do not consume it as food. (

A. S & R both are true And .R. is the explanation of .S..

B. S & R both are true And .R. is not the explanation of .S..

C. .S. is true and R is false

D. .S. is false and R is true

#### **Answer: C**



## **View Text Solution**

## 22. Where callus is maintained?

A. In nutrient solution

B. On agar-agar jel

C. On polyacrelamide jel

D. On agarose jel

#### **Answer: B**

**23.** Which is the native place of the wild jungle fowl?

A. Japan

B. Bangladesh

C. India

D. Russia

**Answer: C** 



#### View Text Solution

**24.** The dairy industry covers......

A. Production for milk & milk products

B. Processing of milk and milk products

C. Distribution of milk and milk products

D. All the above

**Answer: D** 



25.	Which	mammals	have	received	attention				
for the production of milk?									

- A. Cows
- **B.** Goats
- C. Buffalos
- D. All

#### **Answer: D**



**26.** How the cell masses are kept in the liquid medium of suspension culture ?

A. Floating

B. Sunk

C. Free in air

D. by mixing it

**Answer: A** 



**27.** Since how many years, milk and milk production has been developed as an industry?

A. 200

B. 150

C. 100

D. 125

#### **Answer: C**



- **28.** Which of the following statements is true?
- (a) To fulfill the demand of fishery products, different modern techniques are employed.
- (b) Fisheries is included only in salt water.
- (c) Mackerel, Mrigal are edible marine fishes.
- (d) The fisheries often included a combination of fish and fishers in a region
  - A. only (a)
  - B. (a) and (d)
  - C. only (c)

D. (b) and (c)

### **Answer: B**



## **View Text Solution**

**29.** In suspension culture, the culture is constantly agitated to ......

A. 10 to 25 rpm

B. 100 to 250 rpm

C. 1000 to 2500 rpm

D. 10,000 to 25,000 rpm

### **Answer: B**



**View Text Solution** 

**30.** Which one from the following is edible marine fish?

A. Catla

B. Rohu

C. Major carp

D. Sardin

#### **Answer: D**



- **31.** Which is the appropriate statement?
- (i) Close to 90% of fisheries come from the sea.
- (ii) Gujarat has 1640 Km. long sea-coast.
- (iii) Animal husbandry was started before thousands of years.

(iv) In comparison to other countries, in India less attention is paid to fisheries.

A. only (i)

B. only i, ii, iv

C. only (i) & (iv)

D. only i, ii, iii

#### **Answer: D**



32. Worker honey bees means....?

A. Fertile female

B. Fertile male

C. Infertile female

D. Infertile male

#### **Answer: C**



- 33. Which one is appropriate statement?
- (i) In the production of carbon paper, wax is used.
- (ii) In country like India, honey is used for proper nutrition, It is necessary.
- (iii) Worker bees are Sterile male honey bees.
- (iv) In last 100 years, milk and milk production is developed as an industry.
  - A. only i
  - B. only i, iv
  - C. only ii, iii

D. only i, ii, iv

### **Answer: B**



View Text Solution

# **34.** Main source of Fisheries is:

A. Rivers

B. Ponds

C. Sea

D. Khet talavadi

#### **Answer: C**



# **View Text Solution**

35. The selected cell, tissue or organ is called:

A. Callus

B. Explant

C. Embryo

D. none of above

**Answer: B** 

36. Which animal is Hilsa?

A. Fish

B. Variety of female bee

C. Cow

D. Wild jungle fowl

**Answer: A** 



**37.** S - In developing countries 5000 million people are dependent on fisheries directly or indirectly.

R-Fishery is an important industry of India.

A. S & R both are true And .R. is the explanation of .S.

B. S & R both are true And .R. is not the explanation of .S..

C. .S. is true and R is false

D. .S. is false and R is true

### **Answer: D**



**View Text Solution** 

38. Single cell protein is produced by.....

- A. Fermentation
- B. Polyploidy
- C. Hybridization
- D. All the above

### **Answer: A**



## **View Text Solution**

**39.** Statement .A.: A number of technological advances like pasteurization of milk and sealing it in sterile container occur in dairy farming.

Statement .B.: Now it is possible to distribute milk and its products to every part of nation.

- A. Statement .A. and Statement .B. are true and .B. is explanation of Statement .A..
- B. Statement .A. and Statement .B. are true but Statement .B. is not the correct explanation of statement A.
  - C. Statement .A. is correct but statement .B.
    - is incorrect.
- D. Statement .A. is incorrect but statement .B. is correct.

# Answer: A

**40.** How many types of animal breeding methods are there?

A. 2

B. 3

C. 4

D. 5

**Answer: B** 



View Text Solution

# 41. Select the appropriate option:



A. 
$$1-r, 2-p, 3-q, 4-s$$

B. 
$$1-r, 2-s, 3-p, 4-q$$

C. 
$$1-s, 2-p, 3-q, 4-r$$

D. 
$$1 - p$$
,  $2 - q$ ,  $3 - r$ ,  $4 - s$ 

#### **Answer: B**



**42.** By which method production of inbreed variety is increased?

A. Interspecific hybridization

B. Outbreeding

C. Inbreeding

D. All the above

**Answer: C** 



- **43.** hich one is appropriate pair?
  - A. Cultivation of Honeybee Sericulture
  - B. Outbreeding Mule
  - C. Interspecific hybridization Santa gertudese
  - D. Explant Selected plant organ

#### **Answer: D**



**44.** Today.....has developed as an industry to earn money.

- A. Animal husbandry
- B. Hunting
- C. Gathering of food
- D. Both (A) & (B)

#### **Answer: A**



**45.** Human beings were active for which requirement from the beginning? (

- A. Food
- B. Shelter
- C. Travelling
- D. None

**Answer: A** 



**46.** In the beginning how was higher food production obtained by human beings?

- A. By agriculture
- B. By animal husbandry
- C. Both (A) and (B)
- D. None

**Answer: C** 



**47.** In the hybrid species of maize whose proportion is double than today.s maize?

- A. Lucene and tryptophan
- B. Lysine and tryptophan
- C. Grysine and tryptophan
- D. Isolueine and tryptophan

**Answer: B** 



**48.** Which animal product is useful as medicine?

A. Wax

B. Honey

C. Milk

D. Eggs

### **Answer: B**



- **49.** When agriculture began?
  - A. Before millions of the year
  - B. Before thousands of the year
  - C. Before lacs of the year
  - D. Before crores of the year

#### **Answer: B**



### **50.** SCP is:

- A. Some cell protein
- B. Single cell protein
- C. Single cytoplasm protein
- D. Single cell proptoplasm

#### **Answer: B**



51. S - Wax is a byproduct of apiculture.

R - Wax is completely soluble in water and insoluble in ether.

A. S & R both are true And .R. is the explanation of .S..

B. S & R both are true And .R. is not the explanation of .S..

C. .S. is true and R is false

D. .S. is false and R is true

#### **Answer: C**



# **View Text Solution**

# 52. In honey bees, the drones develop from:

- A. Fertilized egg
- B. Unfertilized egg
- C. Schizogony
- D. Asexual reproduction

#### **Answer: B**

53. From where agar-agar can be obtained?

A. Fungus

B. Bryophyta

C. Bacteria

D. Algae

**Answer: D** 



**54.** S- In suspension culture, there is a rapid growth in comparison of callus culture

R - In rotary shaker, the medium is rotated at the speed of 100 to 250 rpm. So, there is a better aeration and thoroughly mixing of the substances.

A. S & R both are true And .R. is the explanation of .s..

B. S & R both are true And .R. is not the explanation of S.

C. .S. is true and R is false

D. S. is false and R is true

**Answer: A** 



**View Text Solution** 

**55.** White revolution is related with:

A. Farming

**B.** Fisheries

C. Dairy industry

D. Apiculture

**Answer: C** 



**View Text Solution** 

**56.** World.s 90% fishery catches comes from.......

A. lake

B. oceans

C. streams

D. rivers

### **Answer: B**



**View Text Solution** 

**57.** Why modern techniques are employed in fisheries ?

A. To Fulfill the demands of fishery products.

B. To increase the production of aquatic plants

C. To increase the productions of fresh water and marine habitat animals

D. All the above

Answer: D



- 58. Pick up the correct statement:
- (i) Outbreeding is also used in inbreeding(ii) In Interspecific hybridization offspring doesnot possess desirable characters.
- (iii) In inbreeding, fertility of offsprings gradually increase.
- (iv) In outbreeding a superior female of any one species is mated with male of other species.
  - A. (i) and (ii) are correct.
  - B. (i), (ii) and (iii) are correct.

- C. Only (i) is correct
- D. All are correct

### **Answer: C**



**View Text Solution** 

**59.** Which of the following is not the application of Embryo culture method?

- A. Rapid clone distribution
- B. To create genetically modified plants

- C. To create useful plants
- D. Formation of cell biomass

#### **Answer: D**



**View Text Solution** 

60. S - Human beings take milk as food.

R - Milk is used as curd, cheese, butter and sweet.

A. S & R both are true And .R. is the explanation of .S..

B. S & R both are true And .R. is not the explanation of .S..

C. .S. is true and R is false

D. .S. is false and R is true

### Answer: B



**61.** Which facilities helped in popularizing poultry as a trade?

A. Distribution and storage

B. Storage and transport

C. Distribution and transport

D. Collection and storage.

**Answer: B** 



62. Full form of IARI is:

A. Indian Agriculture Research Institute

B. International Agriculture Research
Institute

C. Indian Apiculture Research Institute

D. International Apiculture Research
Institute

**Answer: A** 



**63.** Which of the following is widely distributed as domesticated animals since times immemorial?

- A. Fowl
- B. Horse
- C. Goat
- D. Dog

**Answer: A** 



# **64.** Select the appropriate option:



### **Answer: A**



<b>65.</b> What is found in the stomach of honey
bees?
A. honey
B. nectar
C. Oil
D. milk
Answer: B
View Text Solution

**66.** Mass of undifferentiated cells of culture method is known as.......

- A. Tissue
- B. Callus
- C. Suspension
- D. Dead tissue mass

**Answer: B** 



**67.** indicate the correct sequence in callus culture.

A. Explant-aseptic condition-addition of growth promoters - faster growth

B. Callus - faster growth - liquid medium - 2,

5-D.

C. Plant tissue- liquid medium - cell division

- callus

D. Explant- agar-agar jel-growth promoters

- cell division-callus.

#### **Answer: D**



- **68.** S Honey of Honeybee is used as medicine.
- R The wax is a secretion of stomach gland of honey bee.
  - A. S & R both are true And .R. is the explanation of .S..
  - B. S & R both are true And .R. is not the explanation of S.

- C. .S. is true and R is false
- D. .S. is false and R is true

## **Answer: B**



**View Text Solution** 

**69.** Who has discussed the use of honey as medicine?

- A. Huber
- B. Dr. Verges Kurian

- C. Fidric Micher
- D. Fahiyan and Whenson

### **Answer: D**



**View Text Solution** 

**70.** Which of the following group is included in major carp?

- A. Catla, Rohu, mrigal
- B. Catla, Rohu, Sardiness

- C. Catla, Pomfrets, mrigal
- D. Hilsa, Rohu, Sardines

## **Answer: A**



**View Text Solution** 

**71.** What is the name of the place where honey

bee is kept?

- A. Insect house
- B. Explant

- C. Apiary
- D. Conservatory

## **Answer: C**



**View Text Solution** 

## 72. The drones in honey bee are ......

- A. fertile male
- B. fertile female
- C. sterile male

D. sterile female

## **Answer: A**



**View Text Solution** 

73. Buffaloes are considered better than cows

because .....

- A. They are resistant to diseases
- B. They give more milk
- C. They give longer

D. All of the above

**Answer: D** 



**View Text Solution** 

**74.** How did human being obtain food in older time ?

A. Hunting of animals

B. Gathering of fruits of wild plants

C. Agriculture

D. Both (A) and (B)

**Answer: D** 



**View Text Solution** 

**75.** Which of the following statements is/are false?

A. World.s 40% fishery catches comes from oceans.

B. Gujarat has 1640 km long costal area.

C. The livelihood of over 500 million people in developing countries depends on fisheries

D. Fisheries remained an important business in India.

### **Answer: A**



- A. classification of honey bees
- B. distribution of honey bees
- C. rearing of honey bee colonies
- D. social organisation of honey bee

### **Answer: C**



**View Text Solution** 

**77.** Which is the alternate source of proteins for animals and human nutrition ?

- A. Single protein
- B. Simple protein
- C. Single cell protein
- D. Multicellular protein

### **Answer: C**



**View Text Solution** 

**78.** How much fishery of the world is caught by oceans?

- A. 0.7
- B. 0.75
- C. 0.8
- D. 0.9

## **Answer: D**



**View Text Solution** 

**79.** Honey, nectar and fruits contain:

A. galactose

- B. fructose
- C. sucrose
- D. glucose

## **Answer: B**



- **80.** Bee.s wax is used in manufacture of ........
  - A. cosmetics
  - B. paints

C. carbon paper

D. all the above

#### **Answer: D**



**View Text Solution** 

# **81.** Select the appropriate option:



A. 1-r, 2-s, 3-p, 4-q

B. 1-q, 2-p, 3-r, 4-s

C. 1-s, 2-p, 3-r, 4-s

D. 1 - s, 2 - p, 3 - q, 4 - r

## **Answer: C**



# **View Text Solution**

**82.** Which of the following is not included in major carp?

A. Catla

B. Mrigal

- C. Pomfrets
- D. Rohu

## **Answer: C**



**View Text Solution** 

**83.** The processing of milk by factory system was started in which century?

- A. 18th
- B. 19th

C. 20th

D. 21th

**Answer: B** 



**View Text Solution** 

**84.** in developing countries, approximately how many people depends on fisheries?

A. 5,000 million

B. 500 million

- C. 50 million
- D. 50,000 million

## **Answer: B**



**View Text Solution** 

**85.** How many basic requirements are there for human beings?

- **A.** 1
- B. 2

C. 3

D. 4

#### **Answer: C**



**View Text Solution** 

**86.** S- With based on research, IVRI has shown that, there is high nutrition in eggs.

R-In country like India, for proper nutrition of human beings the good use of eggs is necessary

A. S & R both are true And .R. is the explanation of .S..

B. S & R both are true And .R. is not the explanation of .S..

C. .S. is true and R is false

D. .S. is false and R is true

## Answer: B

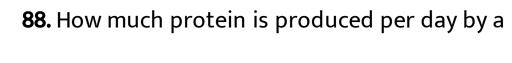


**87.** How many methods are there for animal breeding?

- A. 3
- B. 2
- C. 1
- D. 4

**Answer: A** 





250 kg. cow?

- A. 100 gm
- B. 200 gm
- C. 300 gm
- D. 400 gm

## **Answer: B**



**89.** Assertion .A.: Poultry keeping has become an important small scale industry.

Reason .R.: Poultry keeping provides nutritive food in the form of eggs as well as adult animals.

- A. A and R are true and R is the correct explanation of A.
- B. A and R are true but R is not the correct explanation of A.
- C. A is true but R is false.

D. A and R are false.

### **Answer: A**



**View Text Solution** 

**90.** Which is the worker bee in the honey-bee family?

A. Sterile male bee

B. Sterile female bee

C. Queen

D. Male bee

**Answer: B** 



**View Text Solution** 

**91.** Which chemical is required as a growth regulator in callus culture?

A. Auxin

B. Cytokinin

C. Gibberrelin

D. Both (A) and (B)

**Answer: D** 



**View Text Solution** 

**92.** In species of maize the proportion of which amino acids has been documented double?

- A. Tryptophan and Metheonin
- B. Isolueine and Glysine
- C. Luline and Tryptophane

D. Lysine and Tryptophane

#### **Answer: D**



**View Text Solution** 

**93.** Unfertile female worker bees are known as...

A. King

B. Queen

C. Drone

D. Workers

#### **Answer: D**



**View Text Solution** 

94. Mammalian milk is used for preparation of

A. Sweet

B. Cheese

C. Curd

D. All above

#### **Answer: D**



## **View Text Solution**

95. Which one is inappropriate statement?

- A. With the use of advanced method, high quality having and disease free animals and plants can be produced.
- B. Food, Shelter and continue of race are the basic requirements of human beings.

C. Now-a-days, animal husbandry is

developed as an industry to earn money.

D. Honey is a valuable food used world wide.

### **Answer: D**



**96.** What can be developed in plants by tissue culture?

- A. Totipotency
- B. Insufficient ability
- C. Dormancy
- D. Arising of Flowers

### **Answer: A**



**View Text Solution** 

**97.** For the proper and regular supply of milk, man has domesticated a number of......

- A. Mammals
- B. Birds
- C. Amphibian
- D. Pisces

### **Answer: A**



**View Text Solution** 

98. With the help of modern techniques ......

can be produced.

- A. High quality
- B. Disease free varieties of plants
- C. Disease free varieties of animals
- D. All the above

## **Answer: D**



- **99.** Which one is inappropriate statement for honey?
- (i) Honey is a viscous liquid.

(ii) Honey is secreted from the stomach of the
bee.
(iii) Honey is used to manufacture medicines,
paints and polish.
(iv) Honey is made from the sugary fluid of the
flowers.
(v) Honey contains healthy proteins and
minerals.
A. i, iv
B. ii, iii
C. i, ii, iii

D. iv

### **Answer: B**



**View Text Solution** 

**100.** In which method, reproduction is done between the superior male of one species with the superior female of the same species?

A. Inbreeding

B. Outbreeding

C. Bisexual hybridization

D. Interspecific hybridization

**Answer: B** 



**View Text Solution** 

**101.** How much methylophills - microorganisms are needed to produce 200 gm. protein in a single day?

A. 250gm

- B. 250 kg
- C. 200gm
- D. 160gm

# **Answer: A**



**View Text Solution** 

**102.** Which one is the appropriate from the following?

- A. In 10th century poultry has been developed as a small scale industry
- B. In the middle of 19th century, the processing of milk was started by factory system (Industrialization)
- C. There are 40,000 to 50,000 honey-bees in a good and well-developed colony of bees.
- D. 500 billion people are dependent on fisheries directly and indirectly.

#### **Answer: C**



# **View Text Solution**

103. Agriculture is included in ......

- A. Animal husbandry
- B. Agriculture
- C. Plant breeding
- D. Dairy farming

**Answer: A** 

**104.** In which process variations and up gradation taken place from time to time?

A. Hunting

B. Animal husbandry

C. Agriculture & animal husbandry

D. Agriculture

**Answer: C** 



View Text Solution

**105.** Which type of hybridization gave santa gertrudis (Cow) ?

A. Out breeding

B. Interspecific hybridization

C. Inbreeding

D. Inbreeding and outbreeding

**Answer: A** 



**106.** In bee colony all larvae are fed by workers for first two days on:

- A. Honey
- B. Pollen
- C. Royal jelly
- D. Saliva

**Answer: C** 



107. Mule is formed by mating of ..........

A. male ass and female deer

B. male deer and female horse

C. male horse and female ass

D. male ass and female horse

### **Answer: D**



108. Whose use has been described in our ancient religious literature like Vedas, Puranas, Ramayan, Mahabharat and Charak Samhita

- A. Mammals
- B. Fish
- C. Honey bee
- D. Fowl

**Answer: C** 



109. What is the aim of callus culture?

A. Collection of cytoplasm/protoplast

B. Reduction in cell-biomass

C. To create genetically modified plant.

D. To obtain plantlets of dormant seeds

### **Answer: C**



**110.** Why mushrooms are eaten by many people?

- A. Rich source of fat
- B. Source of carbohydrate
- C. Source of single cell protein
- D. All the above

**Answer: C** 



**111.** Which one is a very important product as a valuable food for human beings all over the world?

- A. Milk
- B. Fish
- C. Animals
- D. Eggs

**Answer: A** 



**112.** In which hybridization the achieved offspring can be used directly as a hybrid species?

- A. Inbreeding
- B. Outbreeding
- C. Inter specific breeding
- D. No one

**Answer: B** 



113. As a result of what type of breeding, absolutely new characters are seen in the offspring?

A. Inner breeding

B. Inbreeding

C. Interspecific hybridization

D. Outbreeding

**Answer: C** 



114. Where is nectar stored in honey bees?

A. crop

B. mouth

C. stomach

D. gizzard

**Answer: C** 



**115.** ..... is the fresh lacteal secretion of animal intended for the nourishment.

- A. Enzyme
- B. Juice
- C. Milk
- D. Oil

**Answer: C** 



116. By continued inbreeding, when the fertility of the offsprings decreases?

A. Due to decreasing homozygosity

B. Due to collection of harmful recessive genes.

C. Due to achieving the opportunity for the desired characters.

D. Due to decrease in heterozygosity

# **Answer: A**



**117.** In which century poultry has been developed as a small scale industry?

- A. 18th
- B. 19th
- C. 20th
- D. 21st

**Answer: C** 



**118.** Which can be helpful to decrease the environmental pollution?

- A. Biofèrtilization
- B. Plant tissue culture
- C. Apiculture
- D. Single Cell Protein

### **Answer: D**



119. Th	ne bees	visit flowe	r, suck the
---------	---------	-------------	-------------

- A. nectar
- B. cell sap
- C. pollen
- D. endosperm

**Answer: A** 



**120.** It concerns with valuable food stuffs universally consumed by man.

- A. Wheat
- B. Rice
- C. Vitamins
- D. Milk

**Answer: D** 



- **121.** In suspension culture, the culture constantly rotates over rotary shaker because
  - A. Through this cells easily process aeration
  - B. The content of the medium are throughly mixed
  - C. Cell masses become differentiated and form small masses.
  - D. All the above

### **Answer: D**



# **View Text Solution**

# 122. Callus is obtained in how many weeks?

A. 2 to 3

B. 2 to 5

C. 3 to 5

D. 3 to 7

### **Answer: A**

123. Where bee wax is not used?

A. In manufacturing of cosmetics

B. In manufacturing of medicines

C. In manufacturing of colours/paints

D. In manufacturing of carbon paper

**Answer: B** 



**124.** Which of the following is included in the basic requirement of human beings?

- A. Food
- B. Shelter
- C. Continue of race
- D. All of the above

**Answer: D** 



125.	Which	of	the	following	dairies	is	not
loca <sup>.</sup>	ted in G	uiar	at ?				

- A. Amul
- B. Milkman
- C. Banas
- D. Dudh sagar

## **Answer: B**



**126.** S- Now-a-days, mushroom is used as a food by many people.

R- So, heterotrophs mushrooms are being cultivated world-wide.

A. S & R both are true And .R. is the explanation of .S..

B. S & R both are true And .R. is not the explanation of S..

C. .S. is true and R is false

D. .S. is false and R is true

### **Answer: A**



**127.** Who has discussed the use of honey as a medicine?

- A. Fahiyan
- B. Whenson
- C. Dr. Varges Kurian
- D. Both (A) and (B)

### **Answer: D**



**128.** Man has domesticated number of mammals for regular supply of ......

- A. Meat
- B. Honey
- C. Egg
- D. Milk

#### **Answer: D**



# **View Text Solution**

**129.** Which of the following statements is not true?

- A. Poultry keeping developed in 20th century.
- B. India is the native place of wild Jungle Fowl.

- C. In India, full attendance has been paid for developing poultry industry.
- D. In country like India, the increased eggs consumption is essential for the proper nutrition of human beings.

### **Answer: C**



**130.** .....is a cooperative result of farmers, cattle keepers, workers, businessman and officers.

- A. Agriculture
- B. Dairy industry
- C. Dairy industry
- D. Poultry

## **Answer: B**



**131.** Which of the following is the goal of plant breeding?

A. Increase in growth rate

B. Development of disease resistance variety

C. Higher rate of reproductive yield

D. Selection and testing of superior recombinants.

**Answer: D** 

132. Which is a very important by product of apiary?

A. Honey

B. Gum

C. Wax

D. Honey-extract

**Answer: C** 



**133.** Assertion .A.: In interspecific hybridization a superior male of any one species is mated with a female of other species.

Reason .R.: The offspring show characters, quite different from those observed in the species of both parents

A. If A and R both are true and R is correct explanation of A.

B. If A and R both are true but R is not correct explanation of A.

- C. A is correct and R is wrong.
- D. A is wrong and R is true

#### **Answer: D**



**View Text Solution** 

**134.** Select the appropriate option:



A. 
$$1-p, 2-r, 3-s, 4-t, 5-q$$

B. 
$$1-q, 2-p, 3-t, 4-s, 5-r$$

C. 
$$1-r, 2-p, 3-t, 4-s, 5-q$$

D. 
$$1-r, 2-p, 3-t, 4-q, 5-s$$

## **Answer: D**



**View Text Solution** 

135. Bee.s wax is insoluble in .........

A. water

- B. benzene
- C. oil
- D. other

# **Answer: A**



**View Text Solution** 

**136.** From where the honey is secreted in honey bee?

A. Stomach

- B. abdominal gland
- C. Pancreas gland
- D. Salivary gland



- **137.** Which is the correct sequence to obtain new genetic variety/diversity.
- (1) Collection of variability.
- (2) Testing, release and commercialization of

new cultivation. (3) Cross hybridization among the selected parents (4) Evalution and selection of parents. (5) Selection and testing of superior recombinants A. 1,3,4,2,5 B. 1,5,4,3,2 C. 5,4,3,1,2 D. 1,4,3,5,2 Answer: D

**138.** One of the following sugars cannot be found in honey.

A. levalose

B. fructose & glucose

C. sucrose

D. none of above

Answer: D



#### View Text Solution

**139.** By which method, plantlet can be developed from the seeds, which are in dormant condition for longer time?

A. Explant

B. Suspension culture

C. Callus culture

D. Embryo cultur

**Answer: D** 

**140.** By what type of hybridization "Mule. is achieved?

A. Interspecific hybridization

B. Outbreeding

C. Inbreeding

D. Inner Hybridization

Answer: A



**141.** Which bacteria can produce 200 gm of protein per day?

A. Bacillus thuringiensis

B. Rhizobium

C. E-coli bacteria

D. Methylophillus methylotrophs

**Answer: D** 



# **142.** Fisheries provide source of income for :

- A. Fishermen
- **B.** Farmers
- C. Workers
- D. Both (A) & (B)

#### **Answer: D**



**143.** Who is the pioneer of .White revolution.?

A. Prof. Ayangar

B. Evano Vaski

C. Lewis Pasteur

D. Dr. Verges Kurian

#### **Answer: D**



- **144.** Which is inappropriate statement?
- (i) Pomfret is a marine edible fish
- (ii) Major carp is a fresh water fish
- (iii) By reproduction between the same species

heterozygosity increases

(iv) Isolation of protoplast is a aim of embryo culture

- A. only i, ii
- B. only iii, iv
- C. only iv

D. only i, ii, v

#### **Answer: A**



**View Text Solution** 

**145.** S- A cow having 250 kg weight, produces 200 Kg protein everyday.

R- The micro organisms of methylophills having weight of 250 gm. produces 200 gm. protein everyday.

A. S & R both are true And .R. is the explanation of .S..

B. S & R both are true And .R. is not the explanation of .S..

C. .S. is true and R is false

D. .S. is false and R is true

#### Answer: D



**146.** Through reproduction between same species

- A. Gene improvement takes place
- B. Collection of desired genes increases
- C. Heterozygosity is increased
- D. All the above

**Answer: D** 



147. What is the full name of IVRI?

A. Imperial Veterinary Research Institute

B. Institute of Veterinary Research Institute

C. International Veterinary Research

Institute

D. Indian Veterinary Research Institute

**Answer: D** 



- **148.** Which of the following statement/statements is/ are false?
- (a) In suspension culture growth is slow.
- (b) In orchids, callus culture method used
- (c) In Embryo culture method sapling is used.
- (d) Through embryo culture method plantlets can be developed from dormant seeds
  - A. (a) and (b)
  - B. (d) and (c)
  - C. (a), (b) and (c)

D. only (d)

#### **Answer: C**



**View Text Solution** 

**149.** Which one is inappropriate pair?

- A. Whenson Honey
- B. Mule-Inbreeding
- C. Dairy Industry Pasteurization
- D. Sardin a freshwater, fish



# **View Text Solution**

**150.** Which of the following statement is true for the outbreeding?

- A. Through reproduction between same species gene improvement takes place.
- B. Collection of desired genes and heterozygosity is increased.

- C. Different characters find a change to come together forming new variety.
- D. Animal of two different species are interbred.

# **Answer: C**



151. Which dairy is located in Mehsana?

A. Amul Dairy

- B. Dudhsagar Dairy
- C. Banas Dairy
- D. Surhul Dairy



**View Text Solution** 

**152.** The birds which are reared for meat purpose are called:

A. Layers

- B. Broilers
- C. Cocks
- D. Hen



**View Text Solution** 

**153.** Who demonstrated the high biological value of eggs and recommended the consumption of eggs?

B. IVRI
C. IRVI
D. BNHS
Answer: B
View Text Solution
<b>154.</b> carry good varities of cattle.
A. Businessmen

A. ICAR

- **B.** Workers
- C. Cattle keepers
- D. Farmers

#### **Answer: C**



**View Text Solution** 

**155.** How many bees of all three castes in a good and well-developed colony of bees are there?

- A. 400 to 500
- B. 4,000 to 5,000
- C. 4,00,000 to 5,00,000
- D. 40,000 to 50,000

#### **Answer: D**



**View Text Solution** 

**156.** How many worker bees are there in a good and well-developed colony of bees?

- A. 40,000 to 50,000
- B. 45,000 to 50,000
- C. 35,000 to 55,000
- D. 30,000 to 50,000

#### **Answer: D**



**View Text Solution** 

**157.** ..... is the rearing of honey bee colonies, commonly in hives.

- A. Apiculture
- B. Pisciculture
- C. Poultry
- D. Sericulture

## **Answer: A**



**View Text Solution** 

**158.** At what speed, the rotary shaker is rotated in suspension culture ?

- A. 100-150 rpm
- B. 100-200 rpm
- C. 100-250 rpm
- D. 150-250rpm

# **Answer: C**



**View Text Solution** 

**159.** In which method small embryo from a developing seed is removed and then cultured on media?

- A. Embryo culture
- B. Subailturing
- C. Suspension culture
- D. Callus culture

## **Answer: A**



**View Text Solution** 

**160.** In which breeding method the offsprings may possess all the desirable characters ?

- A. inbreeding
- B. outbreeding
- C. interspecific hybridization
- D. all the above

#### **Answer: C**



**View Text Solution** 

**161.** How many castes are present in the colony of honey bees?

- A. two
- B. three
- C. four
- D. five



**View Text Solution** 

**162.** What can be told about the bio-mass in plant tissue culture?

- A. Biomass decreases
- B. Biomass flactuates.
- C. Biomass increases
- D. Biomass remains same in quantity

#### **Answer: A**



**View Text Solution** 

**163.** In.. different characters find a chance to come together forming new variety.

- A. inbreeding
- B. outbreeding
- C. interspecific hybridization
- D. all of the above



**View Text Solution** 

**164.** Microbes used for single cell protein production:

B. bacteria

C. fungi

D. all the above

# **Answer: D**



**View Text Solution** 

**165.** Pick up the correct matching set:



A. 
$$(A-2)(B-5)(C-4)(D-1)$$

B. 
$$(A-2)(B-4)(C-1)(D-3)$$

C. 
$$(A-3)(B-5)(C-4)(D-1)$$

D. 
$$(A-1)(B-2)(C-5)(D-4)$$

#### **Answer: A**



**View Text Solution** 

**166.** During tissue culture, what should not be done?

- A. Maintain aseptic condition in laboratory.
- B. Selected explant must be kept in any medium.
- C. The equipment must be sterilized through u.v light.
- D. To manage the constant temperature.



**167.** ..... is useful for obtaining higher production of food.

- A. Hunting
- B. Agriculture
- C. Animal husbandry
- D. Both (B) and (C)

**Answer: B** 



# 168. Select the appropriate option:



A. 
$$1-r$$
,  $2-p$ ,  $3-s$ ,  $4-q$ ,  $5-t$ 

B. 
$$1-s, 2-r, 3-p, 4-q, 5-t$$

C. 
$$1-r$$
,  $2-t$ ,  $3-p$ ,  $4-q$ ,  $5-s$ 

D. 
$$1-s, 2-r, 3-p, 4-q, 5-t$$

### **Answer: C**



**169.** Which is not included in animal breeding method?

A. Inner breeding

B. Interspecific hybridization

C. Inbreeding

D. Outbreeding

Answer: A



170. S - The hybridization - which occurs, in the animals of the same species in known as inbreeding,

R- Due to inbreeding, the production of inbreed species is increased.

A. S & R both are true And .R. is the explanation of .S..

B. S & R both are true And .R. is not the explanation of .S..

C. .S. is true and R is false

D. .S. is false and R is true

#### **Answer: B**



# **View Text Solution**

- 171. Which one is appropriate pair?
  - A. Single cell protein Mushroom
  - B. 500 million people Poultry
  - C. In the middle of 19th Century

**Apiculture** 

D. 30,000 to 50,00 - number - Honeybee

### **Answer: A**



**172.** By which method, the hybrid plantlets of the interpecific plants can be obtained?

- A. Suspension culture
- B. Callus culture
- C. Seed culture
- D. Embryo culture

### **Answer: D**



# **View Text Solution**

**173.** What is the length (in km) of Gujarat costal line?

A. 1600

B. 1640

C. 1500

D. 1460

### **Answer: B**



# **View Text Solution**

**174.** Which of the following is not the method of animal breeding?

- A. Inbreeding
- B. Outbreeding
- C. Interspecific hybridization
- D. Intraspecific hybrdization

#### **Answer: D**



# **View Text Solution**

**175.** If desired genes are gathered, whose proportion is increased?

- A. Homozygosity
- B. Heterozygosity
- C. Unzygosity
- D. All

### **Answer: A**



- **176.** To improve public health, in breeding crops which elements are necessary in higher level?
- (i) Vitamins
- (ii) Carbohydrates, Proteins
- (iii) Lipid, Vitamins, Minerals
- (iv) Vitamins, Proteins, Minerals

A. i, iii, iv

B. i, v

C. i, ii, v

D. i, ii, iii, iv

### **Answer: D**



**View Text Solution** 

**177.** .....is secreted by the abdominal gland of bees.

- A. Honey
- B. Honey comb
- C. Bee.s wax
- D. Bee.s oil

## **Answer: C**



**View Text Solution** 

**178.** In preparation of which of the following milk is not used?

- A. Cheese
- B. Honey
- C. Sweet
- D. Butter

## **Answer: B**



**View Text Solution** 

**179.** During the last ...... years milk and milk products became important articles of commerce.

- A. 100
- B. 200
- C. 300
- D. 400

### **Answer: A**



**View Text Solution** 

**180.** Which of the following is found in many numbers and work as breeding male?

- A. King
- B. Worker
- C. Drone
- D. All the above

# **Answer: C**



- 181. Which one is the appropriate statement
- (i) Homotroph mushrooms are being cultivated worldwide.

(ii) The process of tissue culture is done in the laboratory under uncontrollable factors. (ii) In plant tissue culture, the volume of the media decreases. (iv) In suspension culture, the growth occurs rapidly. A. only i, ii B. only iv C. only iii, iv D. only i, ii, iv **Answer: C** 

**182.** Which one is inappropriate pair?

A. Isolation of protoplast - Embryo culture

B. Hybridization - Improvement in genes

C. Genetic Engineering - to isolate protein

D. Genetic Engineering - to isolate protein

**Answer: A** 



**183.** Single cell protein utilization reduces

A. Infection

**B.** Production

C. Pollution

D. Fertility

**Answer: C** 



184.	People	were	very	much	dependent	upon
hone	ey for	•••••				

- A. Food
- **B.** Medicines
- C. Meat
- D. Herbal product

### **Answer: B**



**185.** In callus culture, callus are maintained on which gel?

A. Polyacrylamide gel

B. Silicon gel

C. Agar-Agar gel

D. Silica gel

## **Answer: C**



- **186.** Choose the correct statements among the following -
- I. Spirulina as single cell protein can serve as food rich in protein.
- II. Pomalo, new hybrid plant formed by somatic hybridisation is the most successful hybridfor commercial utilisation.
- III. Iron fortified rice variety has been developed which contain over 5 times as much iron in common varieties.
- IV. We can use even sewage to produce large quantities of Spirulina

- A. I and II are correct, III and IV are wrong
- B. I, III and IV are correct, and II is wrong
- C. I, II and III are wrong, only IV are correct
- D. II and III are correct, I and IV are wrong

## Answer: B



**View Text Solution** 

Section F Multiple Choice Questions Mcqs Mcqs Asked In Competition Exam **1.** Pollen-grains of a plant whose 2n = 28 are cultured to get callus by tissue culture method. What would be the number of chromosomes in the cells of the callus?

- A. 14
- B. 56
- C. 28
- D. 21

#### **Answer: A**



VIEW TEXT POLITION

2. Scented basmati rice is the contribution of

A. Dr. Borlaug

B. Dr. B.P. Paul

C. Dr. M. S. Swaminathan

D. Dr. A. K. Singh

### **Answer: C**



**3.** Select the false statement(s).

A. Agriculture accounts for approximately 33% of India.s GDP and employs nearly 62% of the population.

- B. Saccharum barberi was originally grown in north India, but had poor sugar content and yield.
- C. Hybrid maize, jowar and bajra have been successfully developed in India.

D. None

#### **Answer: D**



# **View Text Solution**

- **4.** Identify the following commercial varieties among wheat and rice
- I. Sonalika A. Semi Dwarf Wheat
- II. Kalyansona B. Semi Dwarf Rice

III. IR - 8

IV. Jaya

V. Taichung Native -1

VI. Ratna.

A. A - I, III, V, B -II ,IV, VI

B. A - III, IV , V, VI, B - I,II

C. A - I, II, B - III, IV, V , VI

D. A- I,II, B - III, IV, V , VI

### **Answer: D**



**View Text Solution** 

**5.** An important germplasm storing centre in India is

- A. CDRI
- B. FRI
- C. ICRISAT
- D. NEERI

## **Answer: C**



**View Text Solution** 

**6.** In cellular totipotency, roots can be induced by

A. Lower concentration of cytokinins and higher concentration of auxins

B. Higher concentration of cytokinins and lower concentration of auxins

C. Both in equal proportions

D. Only auxins and no cytokinins

## **Answer: A**



**7.** Which one of the following is called macaroni wheat which is mainly used for preparing pasta and noodles?

A. Triticum turgidum

B. Triticum durum

C. triticum speltoides

D. Triticum tauschii

### **Answer: B**



8. Which one is also included in animal

husbandry?

A. Poultry farming B.Fish farming

C. Organic farming D. Molecular farming

A. A and B

B. B and C

C. C and D

D. A,B,C,D

### **Answer: A**



**9.** Jaffrabadi, Murrah and Mehsana arc breeds of

A. Cow

B. Goat

C. Buffalo

D. Sheep

**Answer: B** 



**10.** The most common sources of single cell protein

A. yeasts

B. bacteria

C. other fungi

D. All of these

**Answer: D** 



**11.** Which one of the following is a viral disease of poultry?

A. Coryza

B. New Castle disease (Rani khet)

C. Pasteurellosis

D. Salmonellosis

**Answer: B** 



<b>12.</b> W	hich c	of the	following	is	а	domesticated
insec	t?					

- A. Ants
- B. Bees
- C. Fleas
- D. Wasps

## **Answer: B**



**13.** The disease root-knot of brinjal is caused by

- A. Fusarium udum
- B. Meloidogyne incognita
- C. Pseudomonas rubillieneans
- D. Phytophthora infestans

**Answer: B** 



**14.** A novel technique devised to produce vast quantities of strong and healthy plantlets by rapid vegetative multi under controlled conditions.

- A. Anther culture
- B. Polymerase Chain Reaction
- C. Micropropagation
- D. Protoplast fusion

## **Answer: C**



**15.** Which of the following methods is/are used in recovery of healthy plants from diseased plants?

A. embryo culture

B. meristem culture

C. suspension culture

D. anther culture

## **Answer: B**



16. Jamunapari breed of goats is found in

A. Uttar Pradesh and Himachal Pradesh

B. North Eastern states

C. Andhra Pradesh and Karnataka

D. Uttar Pradesh and Madhya Pradesh

**Answer: D** 



<b>17.</b>	Best	milch	breed	of	cattle	is
------------	------	-------	-------	----	--------	----

- A. Holstein-Friesian
- B. Sahiwal
- C. Red Sindhi
- D. Deoni

**Answer: A** 



**18.** The following process of breeding increases homozygosity

- A. Inbreeding
- B. Out breeding
- C. Cross breeding
- D. Inter-specific breeding

**Answer: A** 



<b>19.</b> The	dividing	and	undifferentiated	cells	are
known	as				

- A. Callus
- B. Proembryo
- C. Primordium
- D. Embryo

## **Answer: A**



**20.** Which one of the following options gives categorisation of six improved varieties of plant according to the type of crops (A, B,C) they give out?





21. What is Moriculture?

A. Raising of silkworm

B. Rearing of bees

- C. Rearing of mulberry worms
- D. Cultivation of mulberry



**View Text Solution** 

# 22. Exotic bread of cattle is

- A. Friesian
- B. Holstein
- C. Jersey

D. All the above

#### **Answer: D**



**View Text Solution** 

**23.** The ability of plant cell to give rise to an entire new plant is called

A. Symmetry

B. Differentiation

C. Totipotency

D. Dedifferentiation

**Answer: C** 



**View Text Solution** 

**24.** In pedigree method of hybridization up to which generation the plants are tested and released for cultivation

A.  $F_2$  generation

B.  $F_3$  generation

- C.  $F_4$  generation
- D.  $F_6$  generation



**View Text Solution** 

**25.** Haploids produced from microspore or pollen

- A. Heterozygotes
- B. Homozygotes

- C. Androgenic haploids
- D. Myogenic haploids

**Answer: C** 



**View Text Solution** 

**26.** The semi dwarf wheat which was instrumental in increasing wheat production was developed

A. Alexander von Humboldt

- B. Paul Ehrlich
- C. Edward Jenner
- D. Norman E. Borlaug



**View Text Solution** 

# 27. A self fertilizing trihybrid plant forms

A. 4 different gametes and 16 different

zygotes

B. 8 different gametes and 16 different zygotes

C. 8 different gametes and 32 different zygotes

D. 8 different gametes and 64 different zygotes

**Answer: D** 



**28.** Genetically improved crop varieties can be developed in laboratory by

- A. Somatic hybridization
- B. Transgenic technology
- C. Somaclonal variation
- D. All of the above

**Answer: D** 



29.	What	was	the	colour	of	high	yielding	
Mexican wheat ?								

- A. White
- B. Pink
- C. Red
- D. Grey

## **Answer: C**



# 30. Dwarf wheat varieties were evolved by

- A. M.S. Swaminathan
- B. Gurudev S. Khush
- C. Norman E. Borlaug
- D. N.I. Vavilov

#### **Answer: C**



<b>31.</b> W	hich	of	the	following	is	a	communicable
disea	se 7						

- A. Rickets
- B. Amoebiasis
- C. Diabetes
- D. Cancer

## **Answer: B**



32. Which statement is correct?

A. The maintenance of hives of honeybees for the production is called apiculture.

B. A group of animals related by descent and similar in most characters are called a breed.

C. The agricultural practice of breeding and raising livestock is called animal husbandry.

D. The ability of plant cells to regenerate into complete plant is called somaclonal variation

A. A and B

B. B and C

C. C and D

D. A, B, C

## **Answer: D**



**View Text Solution** 

**33.** What is the other name for the oriental cattle plague?

A. Brucellosis

B. Encephalitis

- C. Anthrax
- D. Rinderpest



**View Text Solution** 

**34.** Wild varieties of plants must be conserved to -

- A. Maintain ecosystem
- B. Feeding wild animals

C. Future evolution

D. Incorporate useful traits in future crop varieties

## **Answer: D**



**View Text Solution** 

**35.** Dharwar American Veriety of cotton is the product of

A. Mass selection

- B. Mutual breeding
- C. Clonal selection
- D. Parasexual hybridization



**View Text Solution** 

**36.** Sterilisation of glassware and related equipment for tissue culture is brought about by using

- A. Autoclave
- B. incubator
- C. UV light
- D. Alcohol

## **Answer: A**



**View Text Solution** 

**37.** Triticum durum was possibly fertilised by a wild grass, which is thought to have given rise to

- A. Triticum aestivum
- B. Aegilops speltoides
- C. Triticum turgidum
- D. Aegilops squarrosa

## **Answer: A**



**View Text Solution** 

**38.** New methods of obtaining plant breeds includes

A. inducing mutations in plants and then screening for resistant plants

B. selection among somaclonal variants

C. plants obtained by genetic engineering.

D. All

**Answer: D** 



**View Text Solution** 

39. Green revolution in India occurred during:

- A. 1965s
- B. 1970s
- C. 1980s
- D. 1950s

# **Answer: A**



**View Text Solution** 

**40.** The name of Norman Borlaug is associated with

- A. White revolution
- B. Green revolution
- C. Yellow revolution
- D. Blue revolution

## **Answer: B**



**View Text Solution** 

**41.** Hybrid vigour is best maintained in the case of

- A. Inbreeding species
- B. Cross pollinated species
- C. Back crossing
- D. Vegetatively propagated crop plants



- **42.** A technique of micropropagation is
  - A. Protoplast fusion

- B. Embryo rescue
- C. Somatic hybridisation
- D. Somatic embryogenesis



- **43.** Cross between genus is
  - A. Intraspecific hybridisation
  - B. Intervarietal hybridisation

- C. Intergenetic hybridisation
- D. Intergenetic hybridisation



**View Text Solution** 

**44.** Honeybee species reared most widely in India is

- A. Apis indica
- B. Apis florea

- C. Apis dorsata
- D. Apis mellifera

## **Answer: A**



**View Text Solution** 

**45.** Dwarf wheat varieties brought into India from Mexico were

- A. Sonora-64 and Sonalika
- B. Sharbati Sonora and Pusa Lerma

- C. Sonora-64 and Lerma Rojo
- D. Sonalika and Sharbati Sonora

**Answer: C** 



**View Text Solution** 

46. Choose the correct answer

A. Terminator genes helps in terminating seed germination

- B. Axenic culture is pure culture without any contamination
- C. Androgenic haploidy makes use of anther cells
- D. All of the above



**47.** Which of the following diseases is/are poultry disease?

A. aspergillosis

B.ranikhet disease

C. gill rot

D. black rot

A. Both A and B

B. Both C and D

C. Only C

D. Only D

## **Answer: A**



**48.** A free-living nitrogen-fixing cyanobacterium, which can also form symbiotic association with the water fern, Azolla is

- A. Anabaena
- B. Tolypothrix
- C. Chlorella

D. Nostoc

#### **Answer: A**



- **49.** Aims of plant breeding are to produce
  - A. Disease-free varieties
  - B. High-yielding varieties
  - C. Early maturing varieties
  - D. All the above



# **View Text Solution**

**50.** Amino acids present in improved varieties of maize are

- A. methionine and alanine
- B. alanine and cysteine
- C. methionine and cysteine
- D. lysine and tryptophan.



# **View Text Solution**

## **51.** Which pairing is correct?

- A. Sericulture Fish
- B. Pisciculture Birds
- C. Apiculture Honeybee
- D. Aquaculture Mosquito

#### **Answer: C**

**52.** A milch breed of cattle quite common in Punjab. Haryana and Uttar Pradesh is

A. Deoni

B. Sahiwal

C. Hallikar

D. Malvi

**Answer: B** 



View Text Solution

53. Mycorrhiza is used in

A. Obtaining nutrients from soil

B. Synthesis of food

C. Increasing soil fertility

D. Providing resistance against different

regulators

#### **Answer: C**



**54.** Himgiri. developed by hybridisation and selection for disease resistance against rust pathogens is a variety of

A. Wheat

B. Chilli

C. Maize

D. Sugarcane

**Answer: A** 



**55.** In plant breeding programmes, the entire collection (of plants/seeds) having all the diverse alleles for all genes in a given crop is called

A. selection of superior recombinants

B. cross-hybridisation among the selected parents

C. evaluation and selection of parents

D. germplasm collection



### **View Text Solution**

**56.** To obtain virus-free healthy plants from a diseased one by tissue culture technique, which part/parts of the diseased plant will be taken?

- A. Apical meristem only
- B. Palisade parenchyma
- C. Both apical and axillary meristems

D. Epidermis only

#### **Answer: C**



**View Text Solution** 

**57.** Outbreeding is an important strategy of animal husbandry because it

A. help in accumulation of superior genes

B. is useful in producing purelines of animals

C. is useful in overcoming inbreeding depression

D. exposes harmful recessive genes that are eliminated by selection

### **Answer: C**



**58.** Among the following edible fishes, which one is a marine fish having rich source of omega-3 fatty acids ?

- A. Mystus
- B. Mangur
- C. Mrigala
- D. Mackerel



**View Text Solution** 

**59.** Interspecific hybridisation is the mating of

- A. animals within same breed without having common ancestors
- B. two different related species
- C. superior males and females of different breeds
- D. more closely related individuals within same breed for 4-6 generations

#### Answer: B



**60.** A system of rotating crops with legume or grass pasture to improve soil structure and fertility is called

- A. contour farming
- B. strip farming
- C. shifting agriculture
- D. ley farming

**Answer: D** 



- **61.** Artificial selection to obtain cows yielding high milk output represents
  - A. stabilising selection as it stabilises this

    Character in the population
  - B. directional as it pushes the mean of the character in one direction
  - C. disruptive as it splits the population into two, one yielding higher output and the other lower output

D. stabilising followed by disruptive as stabilises the population of produce higher yielding cows

#### **Answer: B**



**View Text Solution** 

**62.** Homozygous purelines in cattle can be obtained by

A. mating of related individuals of same breed

B. mating of unrelated individuals of same breed

C. mating of individuals of different breed

D. mating of individuals of different species

**Answer: A** 



- **63.** Select the incorrect statement :
  - A. Inbreeding increases homozygosity
  - B. Inbreeding is essential to evolve purelines in any animal
  - C. Inbreeding selects harmful recessive genes that reduce fertility and productivity
  - D. Inbreeding helps in accumulation of superior genes elimination of

undesirable genes

**Answer: C** 

