

12th biology important questions BIO BOTANY

LESSON 1. A. ANBU M.SC.,B.ED., 8508429396

1. Pollinium Corpusculum retinaculum.
2. T.s of Mature anther .
3. Cryopreservation
- 4.Exine and intine.
5. Sporopollenin
6. Development of male gametophyte
7. Types of ovule and structure of ovule
- 8.Embryosac
- 9.Monosporic and Tetrasporic
10. Difference between protagyny and protandry?
11. Pollination in salvia and vallisneria
12. Significance of pollination
13. Endosperm and its function
- 14.Apomixis , Diplospory and Apospory
15. Significance of parthenocarpy

LESSON 2

- 1.Difference between continuous variation and discontinuous variation
2. Mono hybrid cross dihybrid cross
3. Incomplete dominance,
- 4.Pleiotropy
5. Dominant epistasis .
- 6.Difference Between epistatic and hypostatic .
- 7.Atavism

LESSON 3

- 1.Synteny
2. Difference between CIS configuration and trans configuration
3. Kinds of linkage
4. Linkage and crossing over
5. Mechanism of crossing over
6. Genetic map and its uses
7. Multiple allele and its character
8. Sex determination in maize
9. Types of mutation
10. Chromosomal aberration.
11. Significance of polidy
12. Allopolyploidy
- 13.Importance of crossing over

LESSON 4. A. ANBU M.SC.,B.ED., 8508429396

1. Palindromic repeats
2. SCP and its application
3. Steps involved in recombinant DNA
4. Restriction Enzymes ,Exo end Endo.
5. Advantages of Herbicide tolerant
6. Ti plasmid bacteria
7. DIRECT AND INDIRECT GENE TRANSFER
8. BLUE WHITE COLONY METHOD
9. SOUTHERN BLOTTING TECHNIQUE
10. Difference between blotting technique
11. **RNA INTERFERENCE / CRISPR CAS 9**
12. BT cotton advantages disadvantages
13. BIOREMEDIATION
14. Bioprospecting (Turmeric)
15. APPLICATIONS OF BIOTECHNOLOGY
16. PBR 322 / DNA LIGASE
17. Biofortification – Golden Rice- BENEFITS

LESSON 5

1. BASIC CONCEPTS OF PTC
2. Techniques involved in PTC
3. CELL SUSPENSION CULTURE
4. APPLICATIONS OF PLANT TISSUE CULTURE
5. ARTIFICIAL SEEDS AND ITS ADVANTAGES
6. Future of bio technology
7. Cybrid / EMBRYOIDS
8. PATENT
9. **CRYOPRESERVATION**

LESSON 6

1. Habitat and niche
2. **RHYTIDOME**
3. Pedology and pedogenesis
4. Soil profile
5. Types of soil particle
6. HALOPHYTES
7. Holo parasite and hemi parasite
9. Competition and Amensalism
10. HYDROPHYTES AND XEROPHYTES
11. DROUGHT ESCAPERS AND TRUE XEROPHYTES
12. SEED BALL AND ITS ADVANTAGES

LESSON 7. A. ANBU M.SC.,B.ED., 8508429396

- 1.LAW OF THERMODYNAMICS
2. FOOD CHAIN FOOD WEB AND ITS SIGNIFICANCE
3. ECOLOGICAL PYRAMIDS
4. Carbon cycle
5. Limnetic zones
6. Pioneers
7. Difference between primary and secondary succession
8. HYDROSERE /CLASSIFICATION OF PLANT SUCCESSION.
9. SIGNIFICANCE OF PLANT SUCCESSION.

LESSON 8

1. Effects of global warming
2. EFFECTS OF OZONE DEPLETION
3. Benefits of agroforestry
4. DEFORESTATION AND AFFORESTATION
- 5 Alien invasive species
- 6.CCS/ CFP / BIOCHAR
7. Environment impact assessment (ELA)
8. IMPORTANT OF GIS AND APPLICATIONS OF SATELLITES

LESSON 9

1. Biofertilizer and biopesticides
2. Seaweed liquid fertilizer
3. Objections of plant breeding
4. ACCLIMATIZATION
5. DIFFERENCE BETWEEN PRIMARY AND SECONDARY INTRODUCTION
6. STEPS IN HYBRIDIZATION AND ITS TYPES
7. HETEROSIS

LESSON 10

1. Spices
2. Timber
3. TRADITIONAL SYSTEM OF MEDICINE
4. NILAVEMBU AND KEEZHANELLI
5. Opium poppy and cannabis
6. COMMON MEDICINAL PLANTS
7. King of spices /queen of spices /Dates of India / SHC / LACOSONE /THC

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BIO ZOOLOGY IMPORTANT QUESTIONS

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LESSON 1

1. Sexual reproduction
2. Phases of life cycle
3. natural and artificial parthenogenesis
4. complete and incomplete parthenogenesis
5. oviparous/ viviparous / ovoviviparous

LESSON 2

1. Cryptorchism
2. Sertolicells / leydigcells
3. Male reproductive system
4. Female reproductive system
5. Spermiogenesis / spermiation
6. Spermatogenesis / oogenesis
7. Structure of sperm /ovum
8. Hyaluronidase
9. Trimester 1,2,3.

INTERESTING FACTS

LESSON 3

1. Female foeticide/ infanticide .
2. Amniocentesis
3. POCOS /lactational amenorrhoea
4. Barrier methods
5. Diffe., tubectomy and vasectomy
6. Assisted reproductive technology (ART)
7. Ultra sound scanning

LESSON 4

1. Multiple allele
2. ABO blood groups
3. Incompatibility RH factors
4. Heterogametic male one example
5. Hererogametic female one example
6. Y chromosome and male development
7. Barr body /Kin selection
8. Holandric genes
9. Colour blindness
10. Karyotyping / applications

LESSON 5

- 1.Griffith experiment or Transformation
- 2.Harshey and chase experiment
- 3.RNA WORLD
- 4.CENTRAL DOGMA OF DNA
- 5.TEMPLATE STRAND CODING STRAND
- 6.Monocistronic /Polycystranic
- 7.TRANCRIPTION IN PROKARYOTES
- 8.TATA BOX PRIBNOW BOX
- 9.TRANCRIPTION IN EUKARYOTES
- 10.INTROS/ EXONS
11. Capping and tailing
- 12.SALIENT FEATURES OF GENETIC CODE
- 13.Wobble hypothesis
- 14.Open reading frame / untranslated region
- 15.TRANSLATION
- 16.LAC OPERON
- 17.HGB/ SALIENT FE., HGB/APPLICATIONS
- 18.DNA FINGER PRINTING

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LESSON 6

- 1.Cocervates
- 2.Geological timescale
- 3.Protobionts
- 4.Urey Miller concept
- 5.Use and disuse Inheritance of acquired character
- 6.Darwin theory of natural selection
- 8.Slaient features of mutation theory
- 9.Modern synthetic theory
- 10.Darwin finches
- 11.HARDY WEINGHBERG LAW

LESSON 7

- 1.Nipah virus
- 2.Trypanosoma gambiense
- 3.Life cycle of plasmodium
- 4.Athletes foot /Ringworm
- 5.Ascariasis /filariasis
- 6.Types of innnate immunity
- 7.Diff.,passive and active immunity
- 8.Diff., primary and secondary response
- 9.lymph node
- 10.Structure of immunoglobulin
11. HAPTEN /EPITOPE /PARATOPE

12. AGGLUTININ /OPSONIZATION
13. ANTIGEN ANTIBODY INTERACTION
14. Effects of drug and alcohol

INTERESTING FACTS

LESSON 8

1. QUEEN OF DRUGS
2. Narrow spectrum/Broad spectrum
3. Syberbug /Toddy /Zymology
4. Biodiesel/ Cyclosporine A
5. Microbial fuel cell
6. BIOREMEDIATION (EXPECTED 5 MARK)

LESSON 9

1. RECOMBINANT HUMAN INSULIN
2. Human alpha lactalbumin
3. interferons
4. GENE THERAPY/ TYPES
5. ELISA
6. POLYMERASE CHAIN REACTION
7. APPLICATIONS OF PCR

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LESSON 10

1. Bergmans/Allen's /Jordens
2. Vanthoffs rule /Phototaxis /Phototropism / photokinesis
3. Properties of water
4. ACCLIMATIZATION
5. NATALITY/MORTALITY
6. IMMIGRATION EMIGRATION
7. POPULATION INTERACTION

LESSON 11

1. Types of diversity
2. Magnitude of biodiversity
3. Species area relationship
4. Causes of biodiversity
5. Hotspots
6. Extinction /Types

7.Biosphere reserve
NATIONAL PARK /WILDLIFE SANCTUARY

LESSON 12

- 1.BIOMAGNIFICATION OF DDT
- 2.EUTROPHICATION / TYPES
- 3.USES OF ORGANIC FERTILIZERS
- 4.SOLID WASTE / RZWT
- 5.MEDICAL / E / PLASTIC WASTE
- 6.ECOSAN TOILETS

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