

1. Which of the following are critical elements?

- (A) N, P, K
- (B) O, N, H
- (C) Zn, Fe, Cu
- (D) Cl, Fe, H

2. Deficiency of which element in soil causes chlorosis in plants ?

- (A) Iron
- (B) Magnesium
- (C) Carbon
- (D) Sodium

3. Which element is a part of cytochrome oxidase?

- (A) Mg
- (B) Fe
- (C) Mo
- (D) All of these

4. The higher the fertility of soil, the

- (A) Lower is the response to fertilizers
- (B) Higher is the response to fertilizers
- (C) There is no response
- (D) None of these

5. Based on morphology, the weed is classified into

- (A) Grass
- (B) Sedge
- (C) Broad leaved weeds
- (D) All of these

6. A herbicide which kills some species in a mixed growth plant species are termed as

- (A) Selective herbicides
- (B) Nonselective
- (C) Contact
- (D) None of these

7. When the resistant plant possesses two or more distinct resistance mechanisms to a single or groups of herbicides is termed as

- (A) Grass resistance
- (B) Multiple resistance
- (C) Both the above
- (D) None of these

8. Foliage applied herbicide in

- (A) Glyphosphate
- (B) Nitratin
- (C) Methane
- (D) None of these

9. Losses of water includes

- (A) Surface run off
- (B) Transpiration
- (C) Evaporation from soil surface
- (D) All of these

10. Drip irrigation is also known as

- (A) Trickle irrigation system
- (B) Line source irrigation
- (C) Both the above
- (D) None of these

11. Water absorption through roots increases when

- (A) Salt absorption is less
- (B) Rate of photosynthesis increases
- (C) Transpiration increases
- (D) None of these

12. Crop plants which protect soil surface from erosion are called as

- (A) Nurse crops
- (B) Cover crops
- (C) Trap crops
- (D) All of these

13. Grain filling at high humidity results in

- (A) Increased crop yield

- (B) Reduced crop yield
- (C) No effect
- (D) None of these

14. Which of the following is a long day plant?

- (A) Sugar beet
- (B) Wheat
- (C) Barley
- (D) All of these

15. What is the condition of plants during severe drought?

- (A) Respiration decreases
- (B) Photosynthesis decreases
- (C) Cells size decreases
- (D) All of these

16. Which of the following is a natural growth regulator?

- (A) Benzaldehyde
- (B) 2, D
- (C) NAA
- (D) Ethylene

17. Tuberization in potato can be achieved by

- (A) Ethylene
- (B) ABA
- (C) IBA
- (D) NAA

18. What does DNA stand for?

- (A) double nucleic acid
- (B) dioxynucleic acid
- (C) double nucleotide acid
- (D) deoxynucleic acid

19. The study of producing crops from the land, with an emphasis on practical applications

- (A). Ecology
- (B). Plantology

- (C). Agriculture
- (D). None of this

20. The study of the interactions of living organisms with one another and with the non-living elements of their environment

- (A). Ecology
- (B). Embryology
- (C). Astrobiology
- (D). Environmental sociology

21. \_\_\_\_\_ refers to an individual's the "genetic potential": what kind of genes s/he carries.  
\_\_\_\_\_ refers to the traits an individual actually shows.

- (A) Genotype, Phenotype
- (B) Phenotype, Genotype
- (C) Heterozygous, Homozygous
- (D) Homozygous, Heterozygous

22. The exchange of genetic material between members of a pair of homologous chromosomes.

- (A) Codon
- (B) Replication
- (C) Transformation
- (D) Crossing over

23. DNA research dramatically developed after PCR developed. What does PCR mean?

- (A) Pedigree Catalyze Reactions
- (B) Duplicated Nucleotide Analysis
- (C) Plasmid Cloned Analysis
- (D) Polymerase Chain Reaction

24. What is the closest definition that;

In molecular genetics, artificially made DNA composed of fragments of DNA from different chromosomes (often from different species) that have been joined together (spliced) by genetic engineering;

- (A) Recombinant DNA
- (B) Cloned DNA
- (C) Regulatory genes
- (D) Recessive endonuclease

25. Synthesis of single-stranded RNA by RNA polymerase using DNA as a template. The process in the nucleus whereby DNA is \_\_\_\_\_ into mRNA.

- (A) transcribed
- (B) translated
- (C) recombined
- (D) cross overed

26. In the field of entomology, what does IPM stand for?

- (A) Inter Pest Management
- (B) Integrated Pest Management
- (C) Intra Pest management
- (D) None of above

27. Who did discover DNA double helix structure?

- (A) Watson and Crick
- (B) Bonnie and Clyde
- (C) Hardy Weinberg
- (D) Norman Borlaug

28. \_\_\_\_\_ was an American agronomist and humanitarian who led initiatives worldwide that contributed to the extensive increases in agricultural production termed the Green Revolution

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29. In addition to sunlight, what else is required for photosynthesis to take place?

- (A) sugar and water
- (B) water and oxygen
- (C) carbon dioxide and water
- (D) oxygen and carbon dioxide

30. What are the products of photosynthesis?

- (A) water and oxygen
- (B) sugar and water
- (C) sugar and oxygen
- (D) water and carbon dioxide

31. Crossing over takes place during \_\_\_\_\_

- (A) meiosis
- (B) mitosis
- (C) segregation
- (D) linkage

32. \_\_\_\_ from the male plant must land on the \_\_\_\_\_ of the female plant in a process called \_\_\_\_\_.

- (A) Pollen, stigma, pollination
- (B) Pollen, stigma, fertilization
- (C) Pollen, anther, pollination
- (D) Pollen, ovary, pollination

33. What is called that a fast-growing crop that is grown between successive plantings of a main crop; crops grown after the regular crop has failed?

- (A) Seed money
- (B) Catch Crop
- (C) Soilage Crop
- (D) None of above

34. Generally, the quickest method of plant breeding is

- (A) Introduction
- (B) Selection
- (C) Hybridization
- (D) Mutation Breeding

35. Pure line breed refers to

- (A) heterozygosity only
- (B) homozygosity only
- (C) heterozygosity and linkage
- (D) none of above

36. The new variety of plants are produced by

- (A) introduction and Mutation
- (B) Selection and Hybridization
- (C) Mutation and Selection
- (D) Selection and Introduction

37. Selection of homozygous plant is

- (A) pureline selection
- (B) mass selection
- (C) both A and B
- (D) none of above

38. Triticale is developed through intergeneric hybridization of

- (A) wheat and rye
- (B) maize and rice
- (C) wheat and rice
- (D) wheat and barley

39. Breeding for disease resistance requires

- (A) good source of resistance
- (B) disease test
- (C) planned hybridization
- (D) all of above

40. Heterosis lost due to continuous inbreeding known as

- (A) hybrid vigor
- (B) inbreeding depression
- (C) biofortification
- (D) none of above

41. Which of the following is NOT true for inbreeding?

- (A) It causes inbreeding depression after a few generation
- (B) It leads to homozygosity
- (C) It is used to produce pure line



(D) It always increases the productivity

42. In light dependent reaction of photosynthesis, energy of sunlight is trapped and used for the synthesis of \_\_\_\_\_

(A) glucose

(B) ATP and NADH

(C) glucose and ATP

(D) none of above

43. Arrange DNA finger printing procedure in the correct order

(A) 1. restriction digestion 2. DNA isolation 3. Electrophoresis 4. Southern blotting 5. Probe hybridization 6. Autoradiograph

(B) 1. DNA isolation 2. Probe hybridization 3. Electrophoresis 4. Southern blotting 5. Restriction digestion 6. Autoradiograph

(C) 1. DNA isolation 2. Probe hybridization 3. Southern blotting 4. 5. Restriction digestion 6. Autoradiograph

(D) 1. DNA isolation 2. Restriction digestion 3. Electrophoresis 4. Southern blotting 5. Probe hybridization 6. Autoradiograph

44. Techniques used for study of gene expression is

(A) DNA microarrays

(B) DNA hybridization

(C) Western blotting

(D) None of above

45. The phenomenon of the entry of toxic chemicals into the food chains and more concentrated at higher trophic levels is called

- (A) biological control
- (B) biomagnification
- (C) algal bloom
- (D) red tide

46. Two crosses between the same pair of genotypes or phenotypes in which the sources of the gametes are reversed in one cross, is known as

- (A) test cross
- (B) hybrid cross
- (C) reciprocal cross
- (D) reversal cross

47. In plant tissue culture, which of the following shows totipotency?

- (A) meristem
- (B) sieve tube
- (C) xylem vessel
- (D) collenchyma

48. In plant tissue culture, the callus tissue can be regenerated into complete plantlets primarily by altering the concentration of

- (A) sugars
- (B) vitamins
- (C) amino acids

(D)hormones

49. type of farming in which crops are grown by farmers for selling purpose is classified as

(A)commercial farming

(B)subsistence farming

(C)pastoral farming

(D)intensive farming

50. ABO blood type can be an example \_\_\_\_\_ while human height can be an example of \_\_\_\_\_

(A) phenotype, genotype

(B) quantitative traits, qualitative traits

(C) qualitative traits, qualitative traits

(D) A and C

ინგლისურენოვანი ბაკალავრიატის საგანმანათლებლო პროგრამა „აგრონომია“

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