KCET Board Exam – 2022-23

Subject: Biology

1. An example of dioecious plant:

   (A) Mango (B) Papaya (C) Cucurbita (D) Coconut

   Sol: Papaya

   Ans: (B)

2. Stalk of the Stamen is:

   (A) Petiole (B) Peduncle (C) Filament (D) Pedicel

   Sol: Filament

   Ans: (C)

3. The ovule of angiosperm is technically known as:

   (A) megaspore mother cell (B) Megaspore

   (C) Megasporangium (D) Megasporophyll

   Sol: Megasporangium

   Ans: (C)

4. Typical mature embryosac of angiosperm is

   (A) 7 nucleated 8 celled structure (B) 8 nucleated 1 celled structure

   (C) 8 nucleated 8 celled structure (D) 8 nucleated 7 celled structure

   Sol: 8 nucleated 7 celled structure

   Ans: (D)

5. One of the 2000 years old viable seed, discovered during the archaeological excavation at King Herold's near dead sea.

   (A) Maize (B) Lupin (C) Sunflower (D) *Phoenix dactylifera*

   Sol: *Phoenix dactylifera*

   Ans: (D)

6. The testis are situated outside the abdominal cavity in scrotum as it helps as

   (A) Maintain the low temperature (B) Regulates hormone secretion

   (C) Store sperm (D) Release sperm

   Sol: maintain the low temperature

   Ans: (A)

7. Identify the odd one from the following:

   (A) Infundibulum (B) isthmus (C) Fimbriae (D) labia minora

   Sol: labia minora

   Ans: (D)

8. In which month of gestation, the first movements of foetus and appearance of hair on its head is observed?

   (A) 5^{th} month (B) 8^{th} month (C) 1^{st} month (d) 4^{th} month

   Sol: 5^{th} month

   Ans: (A)

9. The most abundant type of WBC cell is

(A) Eosinophils (B) Monocytes (C) Basophils (D) neutrophils

Sol: neutrophils

Ans: (D)

10. Filtration of blood during urine formation takes place in

(A) Collecting duct (B) glomerulus (C) DCT (D) PCT

Sol: glomerulus

Ans: (B)

11. Corpus Callosum connects the

(A) Cerebrum and cerebellum (B) Spinal cord with the brain

(C) two lobes of cerebellum (D) two cerebral hemispheres

Sol: two cerebral hemispheres

Ans: (D)

12. Menstrual cycle is exhibited by:

(A) Apes (B) Tiger (C) Cow (D) Rat

Sol: Apes

Ans: (A)

13. The first human like being is

(A) *Homo sapiens* (B) *Homo menthus* (C) *Homo erectus* (D) *Homo habilis*

Sol: *Homo habilis*

Ans: (D)

14. XO type of sex determination and XY type of sex determination are the examples of

(A) Male Homogamety (B) Female Homogamety

(C) Male Heterogamety (D) Female Heterogamety

Sol: Male Heterogamety

Ans: (C)

15. Example for Non- Mendelian disorder:

(A) Thalassemia (B) Cystic fibrosis (C) haemophilia (D) Down's syndrome

Sol: Down's syndrome

Ans: (D)

16. Gynecomastia is a symptom of

(A) Turner's syndrome (B) Cri-du-chat syndrome

(C) Down's syndrome (D) Klinefelter's syndrome

Sol: Klinefelter's syndrome

Ans: (D)

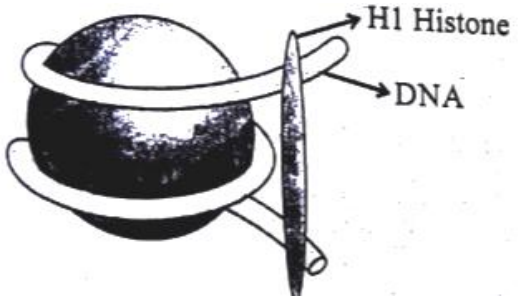
17. The affected male in the pedigree chart is symbolized by

(A) ■ (B) ◆ (C) □ (D) ○

Sol: ■

Ans: (A)

18. The given diagram represents:



(A) Nucleosome (B) Mesosome (C) Chromosome (D) Ribosome

Sol: Nucleosome

Ans: (A)

19. Which of the following hormones is not secreted by human placenta?

(A) Progestogen (B) FSH (C) hCG (D) Relaxin

Sol: FSH

Ans: (B)

20. Which of the following is correctly matched?

(A) Bulbil - Agave (B) Spores - Sponge

(C) Conidia – Hydra (D) Gemmules – Amoeba

Sol: Bulbil - Agave

Ans: (A)

21. The technique advised by a doctor to overcome the problem of infertility:

(A) RCH (B) RTI (C) MTP (D) ART

Sol: ART

Ans: (D)

22. Amniocentesis is a process to:

(A) To grow cell on culture medium (B) Determine the sex of the foetus

(C) Determine any disease of heart (D) Know about the disease of brain

Sol: Determine the sex of the foetus

Ans: (B)

23. Identify the most infectious and fatal type of malarial parasite:

(A) *Plasmodium falciparum* (B) *Plasmodium ovale*

(C) *Plasmodium vivax* (D) *Plasmodium malariae*

Sol: *Plasmodium falciparum*

Ans: (A)

24. The type of antibodies produced during the allergic reaction

(A) Ig G (B) Ig M (C) Ig A (D) Ig E

Sol: Ig E

Ans: (D)

25. One of the side-effect of the use of anabolic steroids in females

(A) Cirrhosis of liver (B) Masculinisation (C) Loss of memory (D) Hallucination

Sol: Masculinisation

Ans: (B)

26. Which one of the following is a opiate narcotics?

(A) Amphatamines (B) LSD

(C) Barbiturates (D) Morphine

Sol: Morphine

Ans: (D)

27. The large holes in 'Swiss – Cheese' are made by a

(A) Bacterium producing a large amount of CO_2

(B) Fungus that releases a lot of gases during metabolic activities

(C) Machine

(D) Bacterium that produces methane gas

Sol: Bacterium producing a large amount of CO_2

Ans: (A)

28. Which vitamin is increased by 'LAB' in curd?

(A) Vitamin B_{12} (B) Vitamin E (C) Vitamin C (D) Vitamin B

Sol: Vitamin B_{12}

Ans: (A)

29. Enzyme which is useful to remove the oily stains in laundry?

(A) Amylase (B) Lipase (C) Renin (D) Protease

Sol: Lipase

Ans: (B)

30. DNA replicates semi conservatively was first shown in :

(A) Plants (B) Higher animals (C) *Escherichia coli* (D) Human cell

Sol: *Escherichia coli*

Ans: (C)

31. A series of experiment were conduct by Frederick Griffith in 1928, on transforming principle with:

(A) *Salmonella typhimurium* (B) *Streptococcus pneumoniae*

(C) *Escherichia coli* (D) *Bacillus thuringiensis*

Sol: *Streptococcus pneumoniae*

Ans: (B)

32. The number of codons effective in coding twenty amino acids:

(A) 64 (B) 20 (C) 61 (D) 32

Sol: 61

Ans: (C)

33. Which aspect forms the basis of DNA finger-printing?

(A) The Satellite DNA showing high degree of repetition in DNA segments.

(B) The amount of DNA found in samples of blood, saliva and skin.

(C) The ratio of purines and pyrimidines present in DNA

(D) The sequence of DNA present in the ridges and grooves of finger-print.

Sol: The Satellite DNA showing high degree of repetition in DNA segments

Ans: (A)

34. Silencing of specific mRNA in RNAi is by

(A) ssDNA (B)dsDNA (C) SSRNA (D) dsRNA

Sol: dsRNA

Ans: (D)

35. Cry-IAC effectively controls,

(A) Root nematode (B) Ring worm (C) Cotton bollworms (D) Corn borer

Sol: Cotton bollworms

Ans: (C)

36. ADA deficiency can be cured by

(A) Kidney Transplantation (B) Heart Transplantation

(C) Bone-marrow Transplantation (D) Liver Transplantation

Sol: Bone-marrow Transplantation

Ans: (C)

37. Average natality rate in our village is 25, average morality is 24, immigration 2 and emigration 3 and the net increase in population

(A) 10 (B) 27 (C) 0 (D) 5

Sol: 0

Ans: (C)

38. The term "Molecular Scissors" refers to

(A) Restriction enzyme (B) Taq polymerase

(C) Polymerase-I (D) Polymerase-II

Sol: Restriction enzyme

Ans: (A)

39. What does the sample of given base sequence represent?

5′-GAATTC-3'

3′-CTTAAG-5′

(A) Completion of replication (B) Palindromic sequence

(C) Initiator codon at 5′ end (D) Deletion mutation

Sol: Palindromic sequence

Ans: (B)

40. Gel electrophoresis is used for

(A) Separation of DNA fragments according to their size.

(B) Cutting of DNA into fragments.

(C) Construction of recombinant DNA by joining with cloning vectors.

(D) Isolation of DNA molecule.

Sol: Separation of DNA fragments according to their size

Ans: (A)

41. An antibiotic resistance gene in a vector usually helps in the selection of

(A) Non-recombinant cells

(B) Non-competent cells

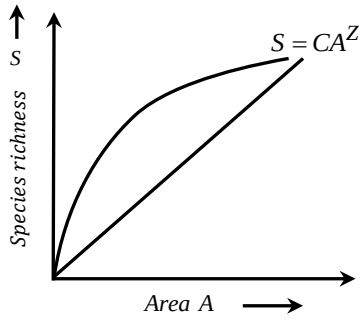
(C) Competent cells

(D) Transformed cells

Sol: Transformed cells

Ans: (D)

42. The given graph represents



(A) Population growth

(B) Species area relationship

(C) Enzyme activity

(D) Growth of organisms

Sol: Species area relationship

Ans: (B)

43. Cuscuta is an example of

(A) Ectoparasitism

(B) Predation

(C) Board Parasitism

(D) Endoparasitism

Sol: Ectoparasitism

Ans: (A)

44. Particulates of _____ size pose greatest risk to human health.

(A) Less than 3.5 micrometers in diameter

(B) Less than 7.5 micrometers in diameter

(C) Less than 2.5 micrometers in diameter

(D) Less than 4.5 micrometers in diameter

Sol: Less than 2.5 micrometers in diameter

Ans: (C)

45. Maintenance of constant internal environment is called as

(A) Thermoregulation (B) Osmoregulation (C) Metastasis (D) Homeostasis

Sol: Homeostasis

Ans: (D)

46. The animals which are active during day time:

(A) Vesporal (B) Cresporal (C) Diurnal (D) Auroral

Sol: Diurnal

Ans: (C)

47. Which of the following statements is incorrect related to biomes?

(A) High temperature and minimum rainfall helps to form grasslands.

(B) Low temperature and less rainfall are characteristics of Tundra biomes.

(C) Variation in temperature and mean precipitation accounts for the major biomes.

(D) More rainfall and low temperature is the characteristics of deserts.

Sol: More rainfall and low temperature is the characteristics of deserts.

Ans: (D)

48. The amount of Photosynthesis active radiation captured by plant is

(A) 60 – 70 percent (B) 12 – 20 percent (C) 20 – 30 percent (D) 2 – 10 percent

Sol: 2 – 10 percent

Ans: (D)

49. Which of the following plant is used to extract Colchicine?

(A) Asparagus (B) Tulip (C) Colchicum (D) Aloe

Sol: Colchicum

Ans: (C)

50. Rows of S-shaped setae in the body of earthworm are present in all the segments, except

(A) the first, last and clitellum (B) the first segment

(C) the last segment (D) the first and last segment

Sol: the first, last and clitellum

Ans: (A)

51. Cell theory was formulated to

(A) Schleiden and Robert Brown (B) Schwann and Robert Brown

(C) Schleiden and Schwann (D) Robert Hook and Robert Brown

Sol: Schleiden and Schwann

Ans: (C)

52. The type of Polysaccharide present in a cotton fibre

(A) Cellulose (B) Glycogen (C) Starch (D) Insulin

Sol: Cellulose

Ans: (A)

53. Enzyme involved in crossing over

(A) Endonuclease (B) Lygase (C) Recombinase (D) Polymerase

Sol: Recombinase

Ans: (C)

54. Kranz anatomy can be seen in

(A) Pea (B) Maize (C) Tomato (D) Potato

Sol: Maize

Ans: (B)

55. Respiratory quotient of glucose is

(A) 0.9 (B) 1.0 (C) 0 (D) 0.7

Sol: 1.0

Ans: (B)

56. A person suddenly starts coughing while swallowing food. This coughing would have been due to improper movement of

(A) Neck (B) Tongue (C) Epiglottis (D) Diaphragm

Sol: Epiglottis

Ans: (C)

57. Binomial nomenclature is introduced by

(A) Bentham and Hooker (B) John Ray

(C) Carolus Linnaeus (D) Lamarck

Sol: Carolus Linnaeus

Ans: (C)

58. Bovine spongiform encephalopathy is caused by

(A) Virus (B) Fungi (C) Viroids (D) Prions

Sol: Prions

Ans: (D)

59. Phycoerythrin and Floridean starch is found in

(A) Brown algae (B) Red algae (C) Blue – green algae (D) Green algae

Sol: Red algae

Ans: (B)

60. Different types of respiratory organ like gills, book gills, book lungs and trachea are present in

(A) Arthropods (B) Annelids (C) Sponges (D) Molluscs

Sol: Arthropods

Ans: (A)

Biology Key Answers:

1. B	2. C	3. C	4. D	5. D	6. A	7. D	8. A	9. D	10. B
11. D	12. A	13. D	14. C	15. D	16. D	17. A	18. A	19. B	20. A
21. D	22. B	23. A	24. D	25. B	26. D	27. A	28. A	29. B	30. C
31. B	32. C	33. A	34. D	35. C	36. C	37. C	38. A	39. B	40. A
41. D	42. B	43. A	44. C	45. D	46. C	47. D	48. D	49. C	50. A
51. C	52. A	53. C	54. B	55. B	56. C	57. C	58. D	59. B	60. A