

KCET Board Exam – 2022-23


Subject: Biology

1. An example of dioecious plant:
(A) Mango (B) Papaya (C) Cucurbita (D) Coconut
2. Stalk of the Stamen is:
(A) Petiole (B) Peduncle (C) Filament (D) Pedicel
3. The ovule of angiosperm is technically known as:
(A) megaspore mother cell (B) Megaspore
(C) Megasporangium (D) Megasporophyll
4. Typical mature embryo sac 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
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*
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
7. Identify the odd one from the following:
(A) Infundibulum (B) isthmus (C) Fimbriae (D) labia minora
8. In which month of gestation, the first movements of foetus and appearance of hair on its head is observed?
(A) 5th month (B) 8th month (C) 1st month (d) 4th month
9. The most abundant type of WBC cell is
(A) Eosinophils (B) Monocytes (C) Basophils (D) neutrophils
10. Filtration of blood during urine formation takes place in
(A) Collecting duct (B) glomerulus (C) DCT (D) PCT
11. Corpus Callosum connects the
(A) Cerebrum and cerebellum (B) Spinal cord with the brain
(C) two lobes of cerebellum (D) two cerebral hemispheres
12. Menstrual cycle is exhibited by:
(A) Apes (B) Tiger (C) Cow (D) Rat
13. The first human like being is
(A) *Homo sapiens* (B) *Homo menthus* (C) *Homo erectus* (D) *Homo habilis*
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
15. Example for Non- Mendelian disorder:
(A) Thalassemia (B) Cystic fibrosis (C) haemophilia (D) Down's syndrome

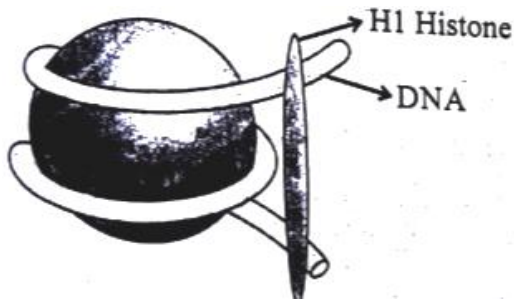
16. Gynecomastia is a symptom of

- (A) Turner's syndrome (B) Cri-du-chat syndrome
(C) Down's syndrome (D) Klinefelter's syndrome

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

- (A)  (B)  (C)  (D) 

18. The given diagram represents:



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

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

- (A) Progesterone (B) FSH (C) hCG (D) Relaxin

20. Which of the following is correctly matched?

- (A) Bulbil - Agave (B) Spores - Sponge
(C) Conidia - Hydra (D) Gemmules - Amoeba

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

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

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

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

- (A) *Plasmodium falciparum* (B) *Plasmodium ovale*
(C) *Plasmodium vivax* (D) *Plasmodium malariae*

24. The type of antibodies produced during the allergic reaction

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

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

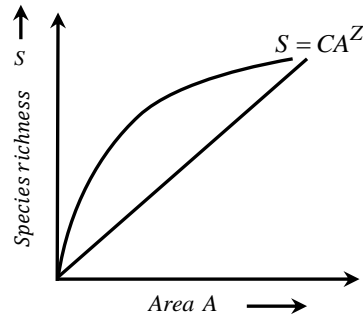
- (A) Cirrhosis of liver
(B) Masculinisation
(C) Loss of memory
(D) Hallucination

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

- (A) Amphetamines (B) LSD
(C) Barbiturates (D) Morphine

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
28. Which vitamin is increased by 'LAB' in curd?
 (A) Vitamin B_{12} (B) Vitamin E (C) Vitamin C (D) Vitamin B
29. Enzyme which is useful to remove the oily stains in laundry?
 (A) Amylase (B) Lipase (C) Renin (D) Protease
30. DNA replicates semi conservatively was first shown in :
 (A) Plants (B) Higher animals (C) *Escherichia coli* (D) Human cell
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*
32. The number of codons effective in coding twenty amino acids:
 (A) 64 (B) 20 (C) 61 (D) 32
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.
34. Silencing of specific mRNA in RNAi is by
 (A) ssDNA (B) dsDNA (C) SSRNA (D) dsRNA
35. Cry-IAC effectively controls,
 (A) Root nematode (B) Ring worm (C) Cotton bollworms (D) Corn borer
36. ADA deficiency can be cured by
 (A) Kidney Transplantation (B) Heart Transplantation
 (C) Bone-marrow Transplantation (D) Liver Transplantation
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
38. The term "Molecular Scissors" refers to
 (A) Restriction enzyme (B) Taq polymerase
 (C) Polymerase-I (D) Polymerase-II
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

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.
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
42. The given graph represents



- (A) Population growth
 - (B) Species area relationship
 - (C) Enzyme activity
 - (D) Growth of organisms
43. *Cuscuta* is an example of
- (A) Ectoparasitism
 - (B) Predation
 - (C) Board Parasitism
 - (D) Endoparasitism
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
45. Maintenance of constant internal environment is called as
- (A) Thermoregulation
 - (B) Osmoregulation
 - (C) Metastasis
 - (D) Homeostasis
46. The animals which are active during day time:
- (A) Vesporal
 - (B) Cresporal
 - (C) Diurnal
 - (D) Auroral
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.
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
49. Which of the following plant is used to extract Colchicine?
- (A) Asparagus
 - (B) Tulip
 - (C) Colchicum
 - (D) Aloe

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
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
52. The type of Polysaccharide present in a cotton fibre
 (A) Cellulose (B) Glycogen (C) Starch (D) Insulin
53. Enzyme involved in crossing over
 (A) Endonuclease (B) Lygase (C) Recombinase (D) Polymerase
54. Kranz anatomy can be seen in
 (A) Pea (B) Maize (C) Tomato (D) Potato
55. Respiratory quotient of glucose is
 (A) 0.9 (B) 1.0 (C) 0 (D) 0.7
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
57. Binomial nomenclature is introduced by
 (A) Bentham and Hooker (B) John Ray
 (C) Carolus Linnaeus (D) Lamarck
58. Bovine spongiform encephalopathy is caused by
 (A) Virus (B) Fungi (C) Viroids (D) Prions
59. Phycoerythrin and Floridean starch is found in
 (A) Brown algae (B) Red algae (C) Blue – green algae (D) Green algae
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