

1. Which one of the following is NOT an evolutionary trend in horse evolution?
  - (A) Development of spring mechanism
  - (B) Gradual enlargement and elongation of third digit
  - (C) Increase in size and complexity of the brain
  - (D) Transition from grazing habit to browsing habit
  
2. Which of the following is NOT a part of gastric glands?
  - (A) Parietal cells
  - (B) Chief cells
  - (C) Enterocytes
  - (D) Enteroendocrine cells
  
3. The Brunner's glands are located in \_\_\_\_\_.
  - (A) Esophagus
  - (B) Stomach
  - (C) Small intestine
  - (D) Large intestine
  
4. The fossil *Cyanognathus* belongs to \_\_\_\_\_.
  - (A) Anapsida
  - (B) Diapsida
  - (C) Euryopsida
  - (D) None of the above
  
5. Which one of the following is the reptilian character noticed in the ancient bird Archaeopteryx?
  - (A) The jaws were like beak
  - (B) Sternum with U-shaped furcula
  - (C) Presence of epidermal scales on the body
  - (D) Presence of sclerotic ossicles
  
6. The dinosaurs, which evolved during late cretaceous were \_\_\_\_\_.
  - (A) *Allosaurus*
  - (B) *Tyrannosaurus*
  - (C) *Triceratops*
  - (D) *Diplodocus*
  
7. Modern synthetic theory was proposed by a group of biologists but does not include \_\_\_\_\_.
  - (A) Haldane
  - (B) Sewall Wright
  - (C) Wallace
  - (D) Ernst Mayr
  
8. Evolutionary forces that destabilize Hardy-Weinberg genetic equilibrium are \_\_\_\_\_.
  - (A) Mutations
  - (B) Genetic drift
  - (C) Gene migration
  - (D) All the three

9. \_\_\_\_\_ is known as the primary organizer during chick development
- (A) Blastopore
  - (B) Primitive streak
  - (C) Hensen's node
  - (D) Nieuwkoop centre
10. In animal development \_\_\_\_\_ rearranges the blastomeres and forms the three germ layers.
- (A) Blastulation
  - (B) Neurulation
  - (C) Gastrulation
  - (D) Organogenesis
11. In sea urchins, the presence of calcium ions causes \_\_\_\_\_
- (A) Inactivation of embryonic development
  - (B) Activation of embryonic development
  - (C) Prevents cortical granule reaction
  - (D) None of the above
12. The neural tube is a derivative of \_\_\_\_\_
- (A) Endoderm
  - (B) Mesoderm
  - (C) Ectoderm
  - (D) Chordamesoderm
13. \_\_\_\_\_ is the larva of sponges
- (A) Planula
  - (B) Amphiblatula
  - (C) Radula
  - (D) Zoea
14. The infective agent of *Entamoeba histolytica* is \_\_\_\_\_
- (A) Trophozoite
  - (B) Binucleate cyst
  - (C) Quadrinucleate cyst
  - (D) Rhabdite
15. Intermediate host for filarial worm is \_\_\_\_\_
- (A) Snail
  - (B) Cyclops
  - (C) Pig
  - (D) Tsetse fly
16. Attaining the sexual maturity while retaining the larval characters is called \_\_\_\_\_
- (A) Neoteny
  - (B) Parthenogenesis
  - (C) Pedogenesis
  - (D) Hereromorphosis

17. 9<sup>th</sup> Vertebra of frog is \_\_\_\_\_  
(A) Procoelous (B) Biconvex  
(C) Amphicoelous (D) Heterocoelous
18. Tuatara belongs to the order \_\_\_\_\_  
(A) Chelonia (B) Rhynchocephalia  
(C) Squamata (D) Crocodilia
19. In birds the III, IV and \_\_\_\_\_ aortic arches are present  
(A) V (B) VI  
(C) VII (D) VIII
20. "Wax of ear" is produced by \_\_\_\_\_  
(A) Meibomian glands (B) Ceruminous glands  
(C) Zeis glands (D) Inguinal gland
21. According to IUCN Red List, what is the status of 'Red panda (*Ailuru fulgens*)'?  
(A) Least concern (B) Vulnerable  
(C) Extinct (D) Endangered
22. Eutrophication results in reduction of \_\_\_\_\_  
(A) Dissolved minerals (B) Dissolved oxygen  
(C) Dissolved hydrogen (D) Dissolved nitrate
23. Energy enters the ecosystem through \_\_\_\_\_  
(A) Herbivores (B) Carnivores  
(C) Producers (D) Decomposers
24. The 1984 Bhopal tragedy was caused due to leakage of \_\_\_\_\_  
(A) Potassium isocyanate (B) Methyl isocyanate  
(C) Sodium monoxide (D) None of these
25. A condition where one gene influences more than one trait is referred as \_\_\_\_\_  
(A) Phenocopy (B) Pleiotropy  
(C) Epistasis (D) Linkage
26. One gene one enzyme is proposed by \_\_\_\_\_  
(A) Joshua and Lederberg (B) Archibald and Garrod  
(C) Beadle and Tatum (D) Benzer and Barbera
27. The inducer for the lac operon is \_\_\_\_\_  
(A) Lactose (B) B-Galactose  
(C) Allolactose (D) Galactose

28. Polytene chromosomes are formed due to \_\_\_\_\_  
(A) Mitosis  
(B) Meiosis  
(C) Fission  
(D) Endomitosis
29. Which one of the following is caused due to deficiency of vitamin D?  
(A) Scurvy  
(B) Rickets  
(C) Nyctopia  
(D) Beriberi
30. The tube that connects the pharynx to the middle ear is called as \_\_\_\_\_  
(A) Eustachian tube  
(B) Omentum tube  
(C) Pharyngoacoustic tube  
(D) None of the above
31. The condition which results in failure of kidney is known as \_\_\_\_\_  
(A) Uraemia  
(B) Anuria  
(C) Diurea  
(D) Haema
32. Excretion of bile pigments in urine indicates \_\_\_\_\_  
(A) Anaemia  
(B) Diabetes  
(C) Rickets  
(D) Jaundice
33. Transgenic animals are those which have \_\_\_\_\_  
(A) Foreign DNA in some of its cells  
(B) Foreign DNA in all its cells  
(C) Foreign RNA in all its cells  
(D) Both DNA and RNA in the cells
34. Making multiple copies of the desired DNA template is called \_\_\_\_\_  
(A) Cloning  
(B) Transferring  
(C) r-DNA technology  
(D) Genetic engineering
35. PCR technique was invented by \_\_\_\_\_  
(A) Karry Mullis  
(B) Boyer  
(C) Sanger  
(D) Cohn
36. Who coined the word nanotechnology?  
(A) Eric Drexler  
(B) Richard Feynmann  
(C) Sumio Tjima  
(D) Richard Smalley

38. A young animal develops an attraction towards an object or animals is called \_\_\_\_\_

- (A) Learning (B) Maturation  
(C) Imprinting (D) Social behaviour

39. Silk contains a protein known as \_\_\_\_\_

- (A) Casein (B) Fibroin  
(C) Sericin (D) both (B) and (C)

40. The chief constituent of honey is \_\_\_\_\_

- (A) Disaccharides (B) Monosaccharide  
(C) Polysaccharides (D) Fats

41. What kind of earthworms is used in vermicomposting?

- (A) Epigeics (B) Endogeics  
(C) Endogics (D) Both (A) and (B)

42. Which of the following is not an exotic breed reared in India?

- (A) Rhode Island Red (B) White leghorn  
(C) Plymouth Roc (D) Ghagus

43. Fatty acids can be transported in and out of cell membrane by \_\_\_\_\_

- (A) Active transport (B) Facilitated transport  
(C) Diffusion (D) Osmosis

44. The glycolysis is regulated by \_\_\_\_\_

- (A) Hexokinase (B) Phosphofructokinase  
(C) Pyruvate kinase (D) All of these

45. Which of the following class of lipids is abundantly found in plasma membrane of a cell?

- (A) Sphingolipids (B) Phospholipids  
(C) Glycolipids (D) Sterols

46. The structure that is responsible for withstanding severe mechanical stress such as in skin epithelia or bladder is known as \_\_\_\_\_

- (A) Basement membrane (B) Tight junctions  
(C) Gap junctions (D) Desmosomes

47. The volume of air inhaled in single normal breath is known as \_\_\_\_\_

48. The concept of 'Milieu interieur' was first introduced by \_\_\_\_\_  
(A) Walter Cannon (B) Claude Bernard  
(C) Per Scholander (D) George Bartholomew
49. Bilirubin and Biliverdin are found in \_\_\_\_\_  
(A) Bile juice (B) Blood  
(C) Saliva (D) Lymph node
50. Which of the following vitamins is also known as cobalamin?  
(A) Vitamin B11 (B) Vitamin B2  
(C) Vitamin B6 (D) Vitamin B12
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