

NEET Sample Paper 2 PDF for Class 11 (Zoology)

1. Which of the following sets of animals have radial symmetry?

- (a) Sponges, Hydra, crabs
- (b) Coelenterates, ctenophores, echinoderms
- (c) Annelids, arthropods, housefly
- (d) Housefly, fish, human beings

2. Polyp → Asexually → Medusa → Sexually → Polyp The above life cycle is shown by;

- (a) Meandrina
- (b) Aurelia
- (c) Obelia
- (d) Hydra

3. Which one of the following statements is false?

- (a) In Molluscs, gills have respiratory and excretory functions.
- (b) In Molluscs, the head has sensory tentacles.
- (c) Molluscs are dioecious, oviparous with indirect development.
- (d) None of these.

4. Which of the following is correct with respect to classification of Myxine?

- (a) Chordata, Agnatha, Pisces, Cyclostomata
- (b) Chordata, Vertebrata, Agnatha, Cyclostomata
- (c) Chordata, Vertebrata, Gnathostomata, Chondrichthyes
- (d) Chordata, Vertebrata, Gnathostomata, Tetrapoda

5. Which of the following is true for all amphibians?

- (a) All possess tails.
- (b) Excretion occurs by kidneys.
- (c) Alimentary canal, urinary and reproductive tracts open into different chambers to the exterior.
- (d) Heart is three-chambered with two ventricles.

6. Inner lining of urinary bladder is composed of;

- (a) Columnar epithelium.
- (b) Squamous epithelium.
- (c) Transitional epithelium.
- (d) Pseudostratified epithelium.

7. The intercellular material of cartilage is;

- (a) Hollow, pliable and resists compression.
- (b) Solid, not pliable and resists compression.
- (c) Solid, pliable and resists compression.
- (d) Solid, pliable and does not resist compression.

8. The type of muscles present in our;

- (a) heart has involuntary and unstriated smooth muscle fibres.
- (b) intestine has striated and involuntary smooth muscle fibres.
- (c) thighs have striated and voluntary muscle fibres.
- (d) upper arm has smooth muscle fibres that are fusiform in shape

9. Which set is not of the secondary metabolites?

- (a) Flavonoids and rubber
- (b) Antibiotics, coloured pigments and essential oils
- (c) Scents, gums and spices
- (d) Amino acids and nucleic acids

10. Which of the following statements is false?

- (a) Chitin, a complex or heteropolysaccharide occurring in the exoskeleton of arthropods consists of NAG.
- (b) Glucosamine and N-acetylglucosamine are modified sugars.
- (c) Cellulose shows blue colour when treated with I_2 .
- (d) Starch shows blue colour when treated with I_2 .

11. Decline in the activity of the enzyme hexokinase by glucose-6-phosphate is caused by;

- (a) Non-competitive inhibition.
- (b) Competitive inhibition.

- (c) Allosteric modulator.
- (d) Denaturation of enzymes.

12. Select incorrect statement, regarding chemical structure of insulin.

- (a) Mature insulin molecule consists of three polypeptide chains-A, B and C.
- (b) Insulin is synthesized as prohormone which contains extra stretch of C-peptide.
- (c) C-peptide is not present in mature insulin molecule.
- (d) Polypeptide chains A and B are linked by disulphide bridge.

13. Receptor sites for neurotransmitters are present on;

- (a) presynaptic membrane.
- (b) tips of axons.
- (c) postsynaptic membrane.
- (d) membranes of synaptic vesicles.

14. Calcium is important in skeletal muscle contraction because it;

- (a) detaches the myosin head from the actin filament
- (b) binds to troponin to remove the masking of active sites on actin for myosin
- (c) prevents the formation of bonds between the myosin cross bridges and the actin filament.
- (d) activates the actin ATPase by binding to it.

15. Mark the correct statement.

- (a) Alveoli are thin, irregular walled and vascularised bag like structures.
 - (b) Inner pleural membrane is in contact with the thoracic lining.
 - (c) Larynx is a cartilaginous box.
- (1) (a) and (b)
(2) (a) and (c)
(3) (a), (b) and (c)
(4) Only (a)

16. What is correct about human respiration?

- (1) About 90% of CO₂ is carried by haemoglobin as carbaminohaemoglobin.
- (2) Neural signals from pneumotaxic centre of pons can increase duration of inspiration.
- (3) Workers in grinding and stone breaking industries may suffer from lung fibrosis.

(4) All of these

17. What will be the pO_2 and pCO_2 in the atmospheric air compared to those in the alveolar air?

- (1) pO_2 lesser, pCO_2 higher
- (2) pO_2 higher, pCO_2 lesser
- (3) pO_2 higher, pCO_2 higher
- (4) pO_2 lesser, pCO_2 lesser

18. Find out the incorrect statement.

- (a) Globulins are primarily involved in the defence mechanism of body.
- (b) Albumin is the main osmotic protein of blood.
- (c) Plasma without clotting factor is called serum.
- (d) Factors for coagulation of blood are also present in the plasma in an active form.

19. Pacemaker is;

- (a) an instrument for measuring heartbeat.
- (b) an instrument for measuring pulse rate.
- (c) an auriculo-ventricular node that provides impulse for heartbeat.
- (d) a sino-auricular node that provides impulse for heartbeat.

20. To obtain a standard ECG, a patient is connected to the machine with three electrical leads. These leads are connected to;

- (a) One in each wrist and to the left ankle.
- (b) One in each wrist and to the right ankle.
- (c) One in each ankle and to the left wrist.
- (d) One in each ankle and to the right wrist

21. Two examples in which nitrogenous waste products are excreted in the form of uric acid are;

- (a) Insects and cartilaginous fishes.
- (b) Mammals and molluscs.
- (c) Frog and cartilaginous fishes.
- (d) Birds and lizards.

22. Which part of the nephron is situated in the cortex completely?

- (a) Malpighian corpuscle
 - (b) Proximal convoluted tubule (PCT)
 - (c) Distal convoluted tubule (DCT)
 - (d) Loop of Henle
 - (e) Collecting duct
- (1) (a), (b) and (c)
(2) Only (b) and (c)
(3) (a), (b), (c) and (d)
(4) Only (d) and (e)

23. Which of the following statements about proximal convoluted tubule (PCT) is false?

- (a) It is lined by a simple cuboidal brush border epithelium which increases the surface area.
- (b) Nearly all the essential brush border epithelium increases the surface area.
- (c) Proximal convoluted tubule (PCT) is not the site of selective secretion.
- (d) PCT helps to maintain the pH and ionic balance of the body fluids.

24. Mark the incorrect statement in the following.

- (a) All movements lead to locomotion.
- (b) Ciliary movement helps in passage of ova through female reproductive tract.
- (c) Microfilaments are involved in amoeboid movement.
- (d) In Paramecium, the cilia help in the movement of food through cytopharynx and in locomotion as well.

25. Read the following (a) to (d) statements and select the one option that contains both the correct statements.

- (a) Z line is present at the centre of the light band.
 - (b) Thin filaments are firmly attached to the M line.
 - (c) The central part of thick filaments, not overlapped by thin filaments is called Z band.
 - (d) Light band contains only thin filaments.
- (1) (a) and (d)
(2) (b) and (c)
(3) (a) and (c)
(4) (b) and (d)

26. Which one of the following is mismatched with respect to the number of bones and their corresponding body parts?

- (a) Cranium – 8 bones
- (b) Vertebral column – 26 bones
- (c) Ribs – 10 bones
- (d) Appendicular skeleton – 126 bones

27. Electrical synapse differs from chemical synapse in following features:

- (a) Conduction is faster
 - (b) Shows bidirectional flow
 - (c) Synaptic cleft is more
- The correct option(s) is/are;
- (1) (a) and (b)
 - (2) (b) and (c)
 - (3) (a) and (c)
 - (4) Only (c)

28. Frog's heart, when taken out of the body, continues to beat for some time. Select the best option from the following statements.

- (a) Frog is a poikilotherm.
 - (b) Frog does not have any coronary circulation.
 - (c) Heart is "myogenic" in nature.
 - (d) Heart is autoexcitable.
- (1) Only (d)
 - (2) (a) and (b)
 - (3) Only (c)
 - (4) (c) and (d)

29. Select the incorrect statement.

- (a) Coordination is the process through which two or more organs interact and complement the function of one another.
- (b) Neural system provides an organised network of point to point connection for quick coordination.
- (c) Neural organisation is complex in lower invertebrates.
- (d) Vertebrates have a more developed neural system.

30. Portal blood vessels connect the _____ to the _____.

- (a) Hypothalamus; brain
- (b) Hypothalamus; posterior pituitary
- (c) Hypothalamus; anterior pituitary
- (d) Anterior pituitary; posterior pituitary

31. Consider the following statements:

- (a) Calcitonin is a protein hormone.
 - (b) Calcitonin is secreted by parafollicular cells.
 - (c) Calcitonin regulates the calcium level in blood.
 - (d) Calcitonin is also called as TCT (Thyrocalcitonin).
 - (e) TCT is hyperglycemic agent (factor). Select the option containing correct statements.
- (1) (a), (b) and (e)
 - (2) (a), (b), (c) and (d)
 - (3) (c), (d) and (e)
 - (4) (b), (c), (d) and (e)

32. Steroid hormones transmit their information by;

- (a) stimulating the receptors present on cell membranes.
- (b) entering into the cell and modifying cellular contents.
- (c) entering into the cell and modifying nuclear gene expression.
- (d) the help of an intracellular second messenger.

33. A patient who excretes large quantity of sodium in urine has;

- (a) diseased adrenal medulla.
- (b) diseased adrenal cortex.
- (c) diseased pancreas.
- (d) diseased thymus.

34. Assertion (A): Human kidneys can produce urine nearly two times concentrated than the initial filtrate formed. Reason (R): Counter current mechanism doesn't help to maintain a concentration gradient in the medullary interstitium.

- (a) Both Assertion (A) and Reason (R) are the true, and Reason (R) is a correct explanation of Assertion (A).
- (b) Both Assertion (A) and Reason (R) are the true, but Reason (R) is not a correct explanation of Assertion (A).

- (c) Assertion (A) is true, and Reason (R) is false.
- (d) Assertion (A) is false, and Reason (R) is true.

35. Which of the following classes is incorrectly matched with its general characters?

- (a) Cyclostomata – Lack jaws and paired fins and body is covered with placoid scales.
- (b) Osteichthyes – Four pairs of gill slits, covered with an operculum.
- (c) Reptilia – Tympanum represents ear and fertilisation is internal.
- (d) Aves – Endoskeleton is fully ossified and long bones are hollow with air cavities called pneumatic bones.

36. Given below are some characteristics of muscle tissue.

- (a) Cylindrical, elongated
 - (b) Multinucleated
 - (c) Show striations Identify the muscle tissue and choose the correct option with respect to location of these types of muscle tissue.
- (1) Neck and back
 - (2) Myocardium of heart
 - (3) Wall of blood vessels
 - (4) Stomach

37. Which of the following is not an example of competitive inhibition?

- (a) Inhibition of succinic dehydrogenase by malonate.
- (b) Sulpha drugs used to control bacterial pathogens.
- (c) Inhibition of alcohol dehydrogenase by ethanol in methanol poisoning.
- (d) Inhibition of hexokinase by glucose-6- phosphate.

38. Cellulose does not form blue colour with Iodine because;

- (a) it is a helical molecule.
- (b) it does not contain complex helices and hence cannot hold iodine molecules.
- (c) it breaks down when iodine reacts with it.
- (d) it is a disaccharide.

39. Why do human beings have difficulty in breathing at high elevations?

- (a) O₂ makes up a lower percentage of air there.
- (b) The temperature is lower there.

- (c) The barometric pressure is higher there.
- (d) pO_2 is lower there.

40. Select the total number of incorrect matching from the following.

- (a) ECG – Electrocardiogram
 - (b) AVN – AtrioVentricular Node
 - (c) SAN – Sino Atrial Node
 - (d) WBC – White Blue Cells
 - (e) RBC – Red Blood cells
- (1) Five
 - (2) Three
 - (3) Four
 - (4) one

41. Which of the following is mismatched?

- (a) LUBB – First heart sound associated with closure of tricuspid and bicuspid valves.
- (b) Cardiac output – Stroke volume multiplied by heart rate.
- (c) DUBB – Second heart sound, due to opening of semilunar valves.
- (d) Duration of cardiac cycle – 0.8 sec.

42. Which of the following is incorrect?

- (a) Blood vessels leading to glomerulus is called afferent arteriole.
- (b) Vasa recta, peritubular capillaries, glomerulus all have blood.
- (c) Cortical nephron has no or highly reduced vasa recta.
- (d) Vasa recta runs parallel to the Henle's loop in juxtamedullary nephrons

43. Which of the following statements about the molecular arrangement of actin in myofibrils is/are incorrect?

- (a) Each actin (thin) filament is made of two F (filamentous) actins helically wound to each other.
 - (b) Each F actin is a polymer of monomeric G (Globular) actins.
 - (c) Two filaments of another protein, tropomyosin, also run close to the F actins throughout its lengths.
 - (d) A complex protein troponin is distributed at regular intervals on the tropomyosin.
- (1) (a) and (b)
 - (2) Only (c)

- (3) Only (d)
- (4) None of these

44.

- (a) Less number of mitochondria
- (b) More number of mitochondria
- (c) Abundant sarcoplasmic reticulum
- (d) High content of myoglobin
- (e) less sarcoplasmic reticulum
- (f) Aerobic muscles
- (g) Depend on anaerobic respiration for energy.
- (h) Less myoglobin content.

Identify above (a) to (h) traits as characteristic of (i) and (ii) types of muscles.

(i) White muscles (ii) Red muscles

- (1) (i) – (a), (c), (g), (h); (ii) – (b), (d), (e), (f)
- (2) (i) – (a), (d), (e), (f); (ii) – (b), (c), (g), (h)
- (3) (i) – (a), (c), (d), (g); (ii) – (b), (e), (f), (h)
- (4) (i) – (b), (e), (f), (h); (ii) – (a), (c), (d), (g)

45. Given below are two statements: one is labelled as Assertion (A) and the other is labelled as Reason (R). Assertion (A): All vertebrates are chordates but all chordates are not vertebrates. Reason (R): Notochord is replaced by vertebral column in the adult vertebrates. In the light of the above statements, choose the most appropriate answer from the option given below:

- (a) Both Assertion (A) and Reason (R) are the true, and Reason (R) is a correct explanation of Assertion (A).
- (b) Both Assertion (A) and Reason (R) are the true, but Reason (R) is not a correct explanation of Assertion (A).
- (c) Assertion (A) is true, and Reason (R) is false.
- (d) Assertion (A) is false, and Reason (R) is true.

46. Correct sequence for depolarisation and repolarisation is;

- (a) Stimulus applied at a site on a polarised membrane.
- (b) Increase permeability for Na^+ .
- (c) Generation of action potential.
- (d) Increase permeability for K^+ .
- (e) Restoration of membrane potential.

- (1) (a) → (b) → (c) → (d) → (e)
- (2) (b) → (a) → (c) → (d) → (e)
- (3) (a) → (d) → (c) → (b) → (e)
- (4) (a) → (b) → (d) → (c) → (e)

47. (a) Melatonin influences menstrual cycle and our defence capability.
(b) In adult women, hypothyroidism may cause menstrual cycle to become irregular.
(c) Protein hormones secreted by thyroid TCT (thyrocalcitonin) regulates the blood calcium level.
(d) Maintenance of water and electrolytes balance is also influenced by thyroid hormone.
(e) Oxytocin causes milk ejection from the mammary gland. Select the correct statement.
- (1) Only (a), (b and (c)
 - (2) (a), (b), (c) and (e)
 - (3) All except (e)
 - (4) All of these

