



Sample Paper-02

Class 11th NEET (2024)

ZOOLOGY

ANSWER KEY

1. (2)
2. (3)
3. (4)
4. (2)
5. (2)
6. (3)
7. (3)
8. (3)
9. (4)
10. (1)
11. (3)
12. (3)
13. (1)
14. (3)
15. (2)
16. (2)
17. (3)
18. (2)
19. (4)
20. (4)
21. (1)
22. (4)
23. (1)
24. (3)
25. (1)

26. (1)
27. (3)
28. (1)
29. (1)
30. (4)
31. (3)
32. (3)
33. (2)
34. (3)
35. (2)
36. (4)
37. (1)
38. (2)
39. (1)
40. (4)
41. (2)
42. (4)
43. (4)
44. (3)
45. (1)
46. (4)
47. (1)
48. (1)
49. (1)
50. (4)



1. (2)
Coelenterates, ctenophores and echinoderms have radial symmetry.
2. (3)
Polyp → Asexually → Medusa → Sexually → Polyp
This cycle is shown by *Obelia*.
3. (4)
All statements are true.
4. (2)
Classification of *Myxine* is Chordata, Vertebrata, Agnatha, Cyclostomata
5. (2)
Excretion occurs by kidneys is true for all amphibians.
6. (3)
Inner lining of the urinary bladder is composed of transitional epithelium.
7. (3)
The intercellular material of cartilage is solid, pliable and resists compression.
8. (3)
The type of muscles present in our thighs have striated and voluntary muscle fibres.
9. (4)
Amino acids and nucleic acids are not the secondary metabolites.
10. (1)
Acidic → Glutamic acid
Basic → Lysine
Neural → Valine
Aromatic → Tyrosine, phenylalanine, tryptophan
11. (3)
Cellulose shows no colour when treated with I_2 .
12. (3)
Decline in the activity of the enzyme hexokinase by glucose-6-phosphate is caused by allosteric modulator.
13. (1)
The mature insulin molecule actually consists of only two polypeptide chains, A and B, which are linked by disulfide bridges. The C-peptide, or chain C, is present in the proinsulin molecule but is removed during the maturation process to produce the active form of insulin.
14. (3)
Pre-synaptic membrane is involved in the release of neurotransmitter in the chemical synapse. The receptors sites for neurotransmitters are present on the postsynaptic membrane of neurons.
15. (2)
The sarcoplasmic reticulum release calcium ions into the muscle interior where they bind to troponin, thus causing tropomyosin to shift from the face of the actin filament to which myosin heads need to bind to produce contraction.
16. (2)
Outer pleural membrane is in contact with the thoracic lining.
17. (3)
Workers in grinding and stone breaking industries may suffer from lung fibrosis.
18. (2)
 pO_2 higher and pCO_2 lesser in the atmospheric air compared to those in the alveolar air.
19. (4)
Factors for coagulation of blood are also present in the plasma in an inactive form.
20. (4)
Pacemaker is a sino-audicular node that provides impulse for heartbeat.
21. (1)
To obtain a standard ECG, a patient is connected to the machine with three electrical leads. These leads are connected to one in each wrist and to the left ankle.



22. (4)
Two examples in which nitrogenous waste products are excreted in the form of uric acid are birds and lizards.
23. (1)
Parts of nephron situated in cortex completely are:
(a) Malpighian corpuscle
(b) Proximal convoluted tubule (PCT)
(c) Distal convoluted tubule (DCT)
24. (3)
Proximal convoluted tubule (PCT) is the site of selective absorption.
25. (1)
All movements don't lead to locomotion.
26. (1)
Z line is present at the centre of the light band and the light band contains only thin filaments. Both statements are correct.
27. (3)
Ribs – 24 bones
28. (1)
(a) – Central Nervous System (CNS)
(b) – Peripheral Nervous System (PNS)
(c) – Spinal Cord
(d) – Sympathetic Neural System
(e) – Parasympathetic Neural System
29. (1)
Electrical synapse differs from chemical synapse in conduction is faster and shows bidirectional flow.
30. (4)
The vertebrates possess myogenic heart which has self contractile system or autoexcitable; it will thus keep working outside the body for some time.
31. (3)
Neural organisation is simple in lower invertebrates.
32. (3)
Portal blood vessels connect the hypothalamus to the anterior pituitary.
33. (2)
TCT is a hypocalcemic agent (factor).
34. (3)
Steroid hormones transmit their information by entering into the cell and modifying nuclear gene expression.
35. (2)
A patient who excretes large quantity of sodium in urine has diseased adrenal cortex. Adrenal cortex releases aldosterone which causes reabsorption of sodium.
36. (4)
Human kidneys can produce urine nearly four times concentrated than the initial filtrate formed. Counter current mechanisms help to maintain a concentration gradient in the medullary interstitium.
37. (1)
Cyclostomata – Lack jaws and paired fins and the body is devoid of scales.
38. (2)
Pila – Apple snail
Chiton – Chaetopleura
Dentalium – Tusk shell
Sepia – Cuttlefish
39. (1)
Given characteristics of muscle tissue is found in skeletal muscles. Location of skeletal muscle is neck and back.
40. (4)
Inhibition of hexokinase by glucose-6-Phosphate is an example of allosteric inhibition.
41. (2)
Cellulose does not contain complex helices and hence cannot hold iodine molecules.



42. (4)
pO₂ is lower at high elevations.
43. (4)
WBC – White Blood Cells
44. (3)
DUBB – Second heart sound, due to closing of semilunar valves.
45. (1)
Blood vessel leading to glomerulus is called afferent arteriole.
46. (4)
All the given statements are correct.
47. (1)
Red muscles - more number of mitochondria, high content of myoglobin, less sarcoplasmic reticulum and aerobic muscles.
White muscles - less number of mitochondria, abundant sarcoplasmic reticulum, depend on anaerobic respiration for energy and less myoglobin content.
48. (1)
All chordates are divided into three subphyla - Urochordata, Cephalochordata and Vertebrata. In subphylum vertebrata, notochord is replaced by bony or cartilaginous vertebral column in adults. Therefore, all vertebrates are chordates but all chordates are not vertebrates.
49. (1)
Correct sequence for depolarisation and repolarisation is
(a) → (b) → (c) → (d) → (e)
50. (4)
All the given statements are correct.

