INTERNATIONAL INDIAN SCHOOL, RIYADH

FIRST TERM WORKSHEET (2015-16)

Grade – XI BIOLOGY (THEORY)

General Instructions

1. The worksheet comprises of four Sections A, B, C and D.

2. Questions 1 to 20 in section A are very short questions of one mark each. These are to be answered in one word or one sentence each.

5. Questions 21 to 35 in section B are short questions of two marks each. These are to be answered in approximately 20-30 words each.

6. Questions 36 to 55 in section C are questions of three marks each. These are to be answered in approximately 30-50 words each.

7. Questions 56 to 70 in section D are questions of five marks each. These are to be answered in approximately 80-120 words each.

Section – A

1. What is the concentration of glucose in a normal healthy human being?
2. What name is given to functional unit of kidney?
3. What is the role of HCl in protein digestion?
4. Define inspiratory reserve volume?
5. Mention two important functions of large intestine.
6. What is the meaning of double circulation?
7. Why blood plasma is pale yellow in colour?
8. Which hormone is called immunosuppressive and a stress hormone?
9. What is emphysema?
10. Which part of human brain acts as master clock?
11. What is the duration of one cardiac cycle?
12. How does pneumotaxic centre alter the respiratory rate?
13. What is spintcher of Oddi?
14. What is the function of Eustachian tube?
15. Name the hormone whose deficiency causes Diabetes insipidus.
16. What is chyme?
17. Where does the cardiac impulse originate?
18. Name the excretory organs of
    (a) Cockroach
    (b) Earthworm
19. Name one disorder caused by hyperfunctioning of pituitary.
20. Name the U-shaped bone present at the base of buccal cavity.

Section – B

21. What is peristalsis? How does it help in digestion?
22. Differentiate between parasympathetic and sympathetic nerves?
23. How is a nerve impulse conducted along a non- myelinated nerve fibre?
24. Differentiate hyperglycemia and hypoglycemia.
25. What is synapse? Explain how nerve impulse is transmitted across a synapse?
26. Define
    a) Exocrine gland
    b) Endocrine gland
27. Write the human dental formula. What is meant by diphyodont?
28. What are the causes of following disorders?
    (a) Acromegaly (b) Cretinism (c) Gigantism (d) Myxoedema
29. Bring out the role of skin as an accessory organ in excretion.
30. Write the full form of ECG. What do the different waves of a normal ECG of a human indicate?
31. Differentiate between red and white muscles.
32. Explain micturition.
33. Define cardiac output. What is its value?
34. Differentiate between lymph and blood.
35. What are occupational respiratory disorders? Give two examples of such disorders.

Section –C

36. How does calcium affect the process of muscle contraction?
37. Why is posterior pituitary known as storage, releaser centre?
38. What is partial pressure? How does it help in gaseous exchange during respiration?
39. Name the enzyme for protein digestion in gastric, pancreatic and intestinal juices, substrate they digest, and the product of their action.
40. What are ERV and IRV? Give various steps involves in respiration.
41. How do you perceive the colour of an object?
42. What is systemic circulation? Describe its importance. Why are the walls of the ventricle more muscular than the walls of atria?
43. Explain the initiation of muscle contraction. What is the role of sacroplasmic reticulum, myosin head and F-Actin during contraction in striated muscles?
44. Describe the process of inspiration under normal conditions.
45. Differentiate open circulation and closed circulation.
46. Explain the mechanism of generation of light-induced impulses in the retina.
47. Enumerate the chemical events that occur in the process of blood clotting.
48. What is pulmonary circulation? Describe its importance.
49. What is night blindness? What lacks in the eye in this condition? Give one remedy.
50. Name the watery fluid secreted from Brunner's gland in the duodenum. Mention any two characteristics. Give its role inside duodenum.
51. Explain the general structure of synovial joints with example.
52. a) Give the full form of ADH and under what condition of the body does it is released?
    b) Name the gland that secretes it.

c) What is its role in forming hypertonic urine? What is the disease caused due to the failure of its secretion?

53. Mention the function of each of the following :-
    (a) Basophils (b) Eosinophils (c) Monocytes
54. What is indigestion? Mention any three causes.
55. Enumerate the steps in pulmonary respiration of animals.

Section - D

56. Explain the mechanism of breathing in human being with neat suitable diagram.
57. Draw a labeled diagram of the detailed structure of a nephron.
58. Write a short note on pectoral and pelvic girdle with the help of diagram.
59. Explain how hearing and maintenance of body balance is achieved in human beings?
60. Explain the process of conduction of nerve impulse.
61. Describe the histology of human alimentary canal.
62. Describe in detail the human forebrain. Support your answer with well labelled diagram.
63. Name the hormone that regulates each of the following and mention the source of it :
    (a) Heart beat and blood pressure
    (b) Secretion of growth hormone
    (c) Uterine contractions
    (d) Fall of calcium ion level in blood
    (e) Urinary elimination of water
64. Explain the sliding filament theory of the mechanism of muscle contraction.
65. Draw a neat and labelled structure of human eye.
66. Describe the conducting system of heart.
67. Describe the mechanism by which urine is concentrated.
68. List the hormones secreted by gastro intestinal tract and mention their functions. What are they chemically?
69. How is respiration regulated?
70. What is meant by reflex action? Give one example. Name the components of a reflex arc in proper sequence from the receptor upto the effeftor. Support your answer by diagram.

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Prepared by :
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