

AILANGA LUTHERAN JUNIOR SEMINARY
FORM FOUR BIOLOGY HOMEWORK 2
FORMS I&II REVISION QUESTIONS

SECTION B QUESTIONS (Short answers)

1. (a) (i) Differentiate the two terminologies “waste” and “waste disposal”
(ii) Explain four (4) effect of poor waste disposal

(b) Give the meaning of the following terms

i. Personal hygiene

ii. Good manners

(c) (i) List down principle of personal hygiene

(ii) List down principles of good manners

2. (a) Define the following terms

(i) Health

(ii) Immunity

(iii) Disease

(iv) Pandemic disease

(v) Epidemic disease

(vi) Endemic disease

(b) Give two examples in each case of the diseases transmitted in the following ways:

~Through contaminated water

~Through sexual intercourse

~Through insect bites

~Through droplets

(c) Name the locomotory structure for each of the following organisms

~Amoeba

~Euglena

~Paramecium

(d) (i) Show two (2) differences between fungi and plants

(ii) Show two (2) similarities between fungi and plants

3. A bread was put in wet cupboard. After few days the bread it was covered by thread like structure which ended in club shaped structures.

a) Write the common name of the organisms grown on the bread.....

b) Name the kingdom to which the organism belongs.....

c) Name the phylum/division to which the organisms belong.....

d) Outline four (4) economic importance of the kingdom you mentioned in (ii) above.

4. (a) (i) Name the three main parts of the cell

(ii) State the function of each part mentioned in part (a(i)) above

(b) (i) Define photosynthesis

(ii) Give three reasons why photosynthesis is importance to living things

(c) Name three (3) factors that affect the rate of photosynthesis

5. (a) What is the meaning of the following terms

~Digestion

~Malnutrition

~Balance diet

~Nutrients

~Peristalsis

(b) (i) Name the digestive juice which is produced by the liver.

(ii) Explain three (3) functions of the digestive juice named in part (b.i) above.

(c) (i) What is nutritional disorder ?

(ii) Outline four types of nutritional deficiency disorders in human being

6. (a) (i) What is food web and Food chain

(ii) Construct a food web from the following list of organisms:

Lizard, Praying mantis, predator bug, grass hopper, herbivorous, moth bug, Plant

(ii) Construct simple food chain from the following sequence: moth, lizard, plant.

(b) (i) Which organism are:

~Primary consumes

~Secondary consumers

~Tertiary consumers

(c) Give the meaning of the following

~Decomposer

~Predator

~Trophic Level

~Ecosystem

~Commensalism

~Habitat

~Community

~Population

7. (a) With examples, state the meaning of “abiotic” and “biotic” factors of the environment.

(b) Construct a food web from a following list of organism; Phyton, frog, black mamba, grasshopper, spinach.

(c) Give any four (4) differences between food chain and Food web

8. i). Construct a food web by using the following organisms gazelle, shrubs, lions, bacteria, zebra, wild beast and grasses.

ii). What is the role of bacteria in (b.i.) above?

iii) Mention any four (4) significance of food chain and food web in real life situation.

9. (a) What is the difference between Natural and Artificial immunity

(b) What are the four (4) factors that may lead to the lowering of body immunity?

(c) List down four diseases which children are usually vaccinated

10. (a) Define the following terms:-

~Gaseous exchange.

~Respiration.

~Breathing

~Inhalation (Breathing in)

~Exhalation (Breathing out)

(b) Give four (4) characteristics of respiratory surface.

(c) i). Define the following terms:

~Aerobic respiration

~Anaerobic respiration

~Oxygen debts

ii) Compare any three (3) features of Aerobic respiration and Anaerobic respiration

(d) Give four factors which affect the rate of respiration

11. (a) (i) What is respiratory surface?

(ii) Arrange the following in the correct order:

Bronchi, pharynx, bronchioles, nasal passages, alveoli, trachea.

(b) Name the structure concerned with gaseous exchange in:

i. A mammal

ii. A young tadpole.

iii. An insects.

iv. An earth worm

v. Spider.

12.(a) Explain how gaseous exchange occurs across the alveolus. (NECTA 2017)

(b) State the importance of each of Haemoglobin (NECTA 2002)

(c) Explain what would happen if Red blood cell lost haemoglobin. (NECTA 1999 Nov.

13.(a)(i) Identify two common features present in a villus and alveolus.
(ii) Mention the role played by each feature in the structures mentioned in a(i) above. (NECTA 1999 November)

(b) Explain why it is Dangerous to sleep in a poorly ventilated room with a charcoal burner. (NECTA 2007)

14. a). Define the following terms

- i. Diffusion
- ii. Osmosis
- iii. Hypotonic solution
- iv. Hypertonic solution

b). Explain why red blood cells immersed in the low concentrated solution burst?

c). State one function of each of the following

- i. Red blood cells (erythrocytes)
- ii. Platelets (Thrombocytes)
- iii. White blood cells (leukocytes)
- iv. Blood plasma

15. (a) Explain the meaning of the following terms.

- i. Transportation of Materials.
- ii. Mass flow.

(b) Explain what would happen when a plant cell is placed in hypertonic solution

(c) Importance of transport of materials in living things

16. (a) mention components of blood

(b) Write down five differences between artery, veins and capillaries.

(c) State the functions of the following

- (i) Haemoglobin
- (ii) Bicuspid valve
- (iii) Tricuspid valves
- (iv) Semi-lunar valves

17.(a) Draw a well labeled diagram of external and internal structure of mammalian heart.

(b) Give function of each part labeled in the diagram drawn above.

(c) Mention adaptations of mammalian heart to it's function

18. (a)What is blood transfusion?

(b) Mention precautions taken during blood transfusion

(c) Advantages and disadvantages of blood transfusion

19. (a) What is 'Blood circulation'?
- (b) Show diagram of the circulatory system in humans.
- (c) Mention four (4) importance of blood circulation in humans.

- 20 (a) Give functions of the following plant tissues
- ~Xylem
 - ~Phloem
- (b) Draw a well labeled diagrams of cross-section of:
- ~Monocot root
 - ~ Dicot root
 - ~Monocot stem and
 - ~Dicot stem

- 21 (a) Define the term "Transpiration"
- (b) Mention and explain any five (5) significance of transpiration in plants
- (c) Mention and explain factors affecting the rate of transpiration in plants

SECTION C (20 ESSAY QUESTIONS)

22. Write an essay on Malaria using the following outline

- ~Cause
- ~Mode of transmission
- ~Symptoms
- ~Prevention

23. State three types of macronutrients and then explain their functions in human being (3 points for each macronutrient)

24. Use the guidelines given below to explain how you will teach people in your community about eating balanced diet.

- ~Meaning of the balanced diet.
- ~Components of balanced diet.
- ~Importance of each component.
- ~Deficiency of disease that may result when a person does not eat a balanced diet.
- ~Two factors that contribute lack of balanced diet among children in your community.

25. Write an essay on photosynthesis using the following sub - headings

- i. Meaning of photosynthesis
- ii. Raw materials of photosynthesis
- iii. Ends products of photosynthesis
- iv. Importance of photosynthesis

All the Best: "Take care COVID-19 is REAL".
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