JAFFNA HINDU COLLEGE

Risk Holiday Self - Education Worksheet (2) – 2020

Grade – 11 | Science

Name/Index No : …… Mr.P.Thusyanthan, NDT (Sci), B.Ed

INSTRUCTIONS :

- Answer all the questions.
- Answer the questions on answer sheets only.
- Read the respective lesson units thoroughly and comprehend before you attempt answering the questions.
- File the completed answer and hand over to the class teacher when the school reopens.

Unit 06 – Biological Process in Human Body

01. Digestive system of human given below

1. What do you meant by digestion of food?
   ……
   ……
   ……...
2. Name the parts of human digestive system from A-J?
   ……
   ……
   ……..
3. Where does the chemical digestion start?
   ……
   ……..
4. Write down the reaction for chemical change that is mention question 3?
   ……
   ……
5. State the movement of food bolus passes through the oesophagus?
   ……
   ……
6. Give two substances that are found in gastric juice?
   ……
   ……
7. Write down the function of "G"?
   ……
   ……..

www.jkedu.lk

8. Write down three characteristics of 'G' for perform above function?
   ……
   ……
   ……
   ……
9. Which structure prevents to enter food particles into the respiratory tract?
   ……
   ……
10. State the largest gland that is related with digestive system and give the substance secrete by that gland?
    ……
    ……
11. What is the function of that secrete substance?
    ……
    ……
12. Complete following table

Organ	Enzyme	Substract	End poroducts
Pancreas	Amylase …… ……. …… ……	…… …… Protein Lipid	…… …… …… …… …… ……
Small intestine	Maltase …… …… …… …… …… ……..	…… Sucrose …… Polypeptides	Glucose …… Glucose and galactose ……

13. Write down the end products of lipid?
    ……
    ……
14. Which substances that are absorb by blood capillaries?
    ……
    ……..
15. State three adaptations to increase the efficiency of absorption in small intestine?
    ……
    ……
    ……
    ……
    ……..
16. Which part of villi absorbs end products of lipid?
    ……
    ……..

www.kedu.lk

17. Give some disorders that are related with digestive system?

……
…….....

18. Give three reasons for constipation?

……
……..

19. What do you meant by gastritis?

……
…….

20. Write down three reasons for gastritis?

……
……

02. A. Demonstration of gas exchange using a model given below.

1. Which parts of human respiratory system that are compared with the parts of A, B, C, D in the picture?

……
……

2. What is the observation when pull down the balloon membrane?

……

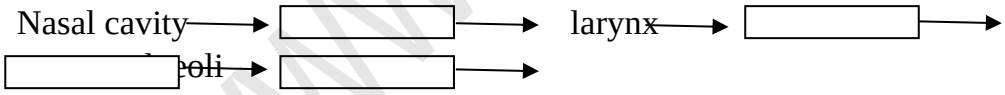
3. State the reason for that observation?

……..

4. Write down two muscles related with mechanism of respiration?

……

5. Give the path of air move in the respiratory system?



6. What are the changes occurs when air enter through the nasal cavity?

……
……

7. a) What do you meant by cellular respiration?

……
…….

b) Name the organelle that is involved with above process?

……

c) Write down the chemical equation for aerobic respiration in animals?

……

d) What is the reason for muscle cramp due to an instant activity like 100m race?

……

e) How to the call anaerobic respiration that takes place in plants and yeast cells?

……..

www.ikedu.lk

f) Write down the chemical equation for anaerobic respiration in yeast cells?

……..

g) Write down the products of respiration process in human?

……..

h) Write down two function of ATP?

……..

B. Human respiratory system Shown in picture.

1. Name the parts of A, B, C, D, E, F and G?

……

……

……

2. What is the reason for the part "E" consist cartilage tissue?

……

3. Explain to how to increase the volume of thoracic cavity during inspiration?

…….....

.....

4. Explain the gas exchange that take place in alveoli?

……

……

5. Write down some adaptations of the respiratory surfaces for efficient gas exchange?

……

6. Write down some diseases that are related with respiratory system?

……

……

7. Name the chemical substance in cigarette smoke?

…….

8. How to identify the patient who affected by tuberculosis?

…….

03. The structure of human urinary system shown in the picture.

1. Name the parts of A, B, C, D and E?

……

……

2. What do you meant by excretion?

……

…….....

3. Write down the excretory organs of human and give excretory materials released by that?

……

……

www.lkedu.lk

4. State the process of urea production?
   ……
5. Which organ involved with urea production?
   ……
6. Where does the urine store as temporally?
   ……..

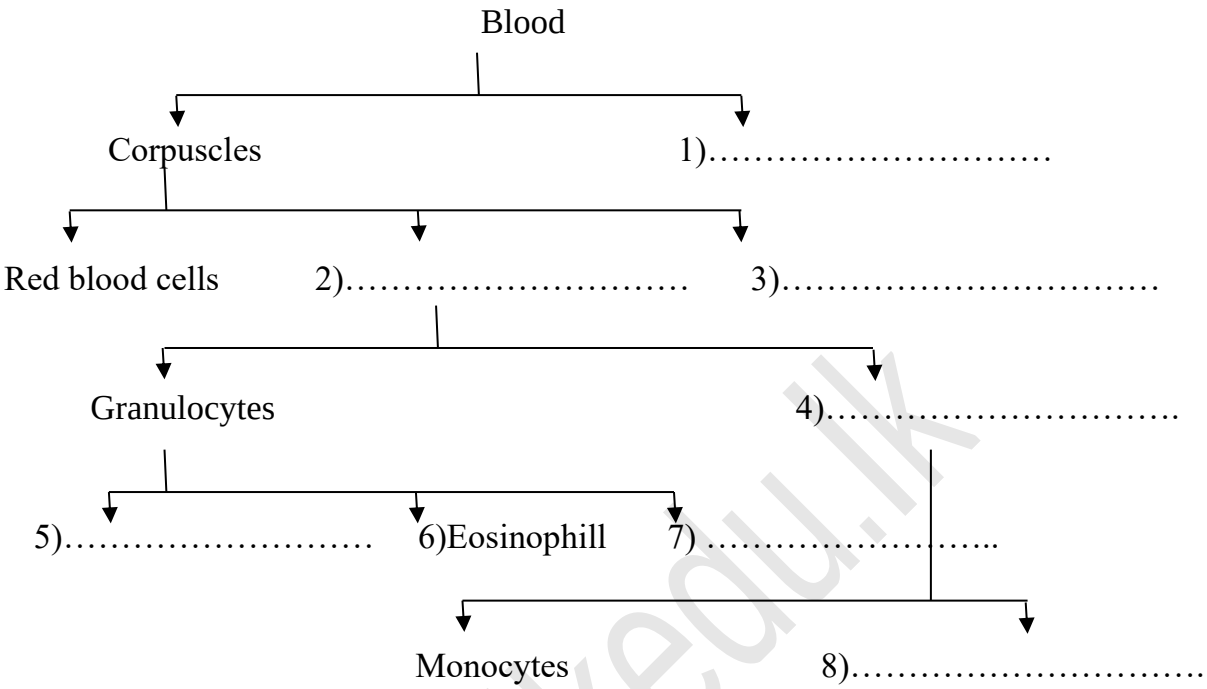
B. The functional unit of kidney is given below.

1. Name the above structure?
   ……
2. Identify the parts of A, B, C, D, E and F?
   ……
   ……
   ……
3. Which blood vessel provides blood to this structure?
   ……
4. Write down the steps of urine production?
   ……
5. State two components of blood that are not filtered by this structure?
   ……
6. How to call the substance of filtered by bowman's capsule?
   ……
7. State two ions that are secrete in nephron?
   ……
8. Write down components in urine of healthy person?
   ……
9. Which substance is deposit as calculi in kidney?
   ……
10. Name the technology that is used to remove that stones?
    ……

www.ikeou.lk

04.

A) 01. Complete following frame work that is related with blood tissue



02. Write down the function of following corpuscles

I. Red blood cells …….
II. White blood cells ……...
III. platelets ……

03. Write down two functions of blood tissue?

…….
……..

04. Write down the components blood plasma?

…….
…….

B) Longitudinal section of the human heart is shown in the figure

01. Identify the parts of human heart that are noted in the figure?

…….
…….
…….
…….

02. Which chamber of heart has thickest wall and give the reason for that?

……
……

03. State the blood vessel that carries out oxygenated blood from the heart to the body?

……..

www.lkedu.lk

04. Which blood vessel gives blood to the cardiac muscle?

……..

05. Name the blood vessel that carries out deoxygenated blood to the human heart?

……..

06. Write down the location of following valves?

I. Bicuspid valve : ……..
II. Tricuspid valve :……
III. Semi lunar valve :……

07. Write down the steps of cardiac cycle in orderly?

……

08. What is the value of blood pressure of a healthy person?

……

09. What are the reasons for high blood pressure?

……

……

10. Write down the different between tissue fluid and blood?

……...

11. What is the function of lymphatic system?

……

12. What is the reason for causing of coronary thrombosis?

……

13. Write down some steps taken to control the coronary thrombosis?

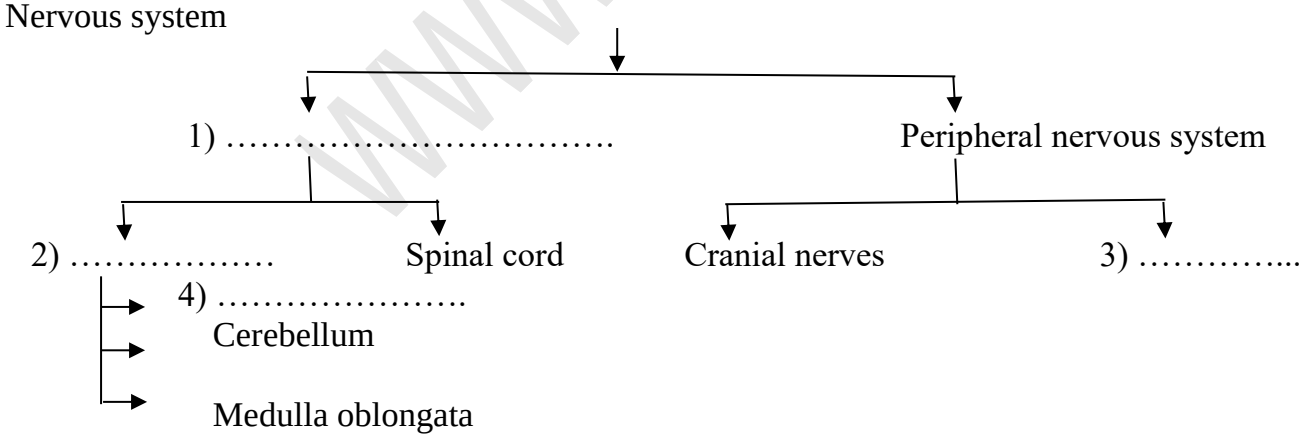
……

14. Give some diseases that are related with blood circulatory system?

……

05. Nervous system specialized to perform coordination of human.

1. Fill in the blanks in following diagram



2. What is the main function of nervous system?

……

……

3. What is the structural unit of nervous system?

……

4. Write down the 3 types of neurons of nervous system?

……

www.ikedu.lk

B. A main organ of human is given in the figure.

1. Name the organ which is shown in the figure?
   …….
2. Identify the parts of P, Q, R, and S?
   …….
3. Write down the meninges that are covered the brain and spinal cord?
   ……
4. Which fluid is found between the meninges?
   ……
5. Write down the functions of that fluid?
   ……..
6. Give a function of following parts
   I. Cerebrum ……
   II. Cerebellum……...
   III. Medulla oblongata …….
   IV. Hypothalamus …….

7. What do you meant reflex action?
   ……
   ……
8. Write down the functional unit of nervous system?
   ……
9. Write down two type of reflex action and give suitable examples to each one?
   ……
   ……
10. Give two type of autonomic nervous system?
    ……
11. Write down 4 features of hormones?
    ……
    ……
    ……
    …….
12. Complete following table?

Gland	**Location of gland**	**Hormone**	**Utility**
Pituitary			
Thyroid			
Pancreas			
Adrenal glands			
Testes			
Ovaries			

www.ikedu.lk

13. What do you meant by homoeostasis?

……
……
……

14. Write down the factors in the internal environment that has to be regulated?

……
……

15. How to regulate blood glucose level in human body?

……
……
……
……
……
……
……

16. How to regulate body temperature of human, when temperature of the internal environment increases?

……
……
……
……
……
……
……

www.lkedu.lk

Unit 07 – Acids, Bases and Salt

01. Different type of acids used in our daily life

1. What do you meant by acid?

……

……

2. Write down two type of acids based on ionization?

……

3. What do you meant by strong acid and give 3 exampls?

……

……

4. Complete the following equations during the ionization?
   i. $HCl_{(aq)} \longrightarrow$ .....+.....
   ii. $H_2SO_{4(aq)} \longrightarrow$ .....+.....
   iii. $HNO_{3(aq)} \longrightarrow$ .....+.....
5. What do you meant by weak acid and give 3 examples?

……

……

6. How to prepare dilute acids in the laboratory?

……

……

7. Write down 4 properties of acids?

……

……

……

……

8. Write down the balanced equation when react HCl and $CaCO_3$?

……

9. Give 3 uses of hydrochloric acid?

……

……

……

10. State 3 uses of sulphuric acid?

……

……

……

11. Write down 3 uses of acetic acid?

……

……

……

www.lkedu.lk

02. Milk of magnesia, toothpaste, soap and lime are examples for bases.

01. What do you meant by base?

……

……

02. Write down two type of bases based on ionization?

……

03. What do you meant by strong base and give 2 examples?

……

……

04. Complete the following equations during the ionization?

$NaOH_{(aq)} \longrightarrow$ .....+.....

$KOH_{(aq)} \longrightarrow$ .....+.....

05. What do you meant by weak base and give 2 examples?

……

06. Write down 4 properties of bases?

……

08. Write down the balanced equation when react $NaOH_{(aq)}$ and $H_2SO_{4(aq)}$?

……

09. Give 3 uses of sodium hydroxide?

……

……

……

10. State 3 uses of magnesium hydroxide?

……

……

……

11. What do you meant by alkalis?

……

……

03. Many natural indicators used in our daily life such as shoe flower boiled water, arecanut juice and etc

1. What do you meant by indicator?

……

……

2. Write down some artificial indicators in the laboratory?

……

3. Complete the following table by using colour change when add following indicators in acidic solution and basic solution separately?

Indicators	Acids	Bases
Blue litmus paper		
Red litmus paper		
pH paper		
Phenolphthalein		
Methyl orange		

www.ikedu.lk

4. What is the colour change when pH paper adds with a neutral substance?

……
……

5. Write down the balanced equations in following instances
   i. Hydrochloric acid reacts with potassium hydroxide

   ……
   ii. Nitric acid upon reacting with magnesium hydroxide

   ……
   iii. Sulphuric acid reacts with sodium hydroxide

   ……

6. Write down 3 uses of sodium chloride?

……
……
……

7. Write down 3 uses of copper sulphate?

……
……
……

8. What do you meant by neutralization?

……

……

9. Write down some applications of the acid – base neutralisation reaction?

……

……

……

***

www.lkedu.lk