NO3

**QUESTIONS FOR EVALUATION**

1. A) Name two structures possessed by plant cells that are absent in the animal cell **(2marks)**

b) Name the process by which plant cells obtain their **( 3marks)**

i) Mineral salts

ii) Carbon dioxide

iii) Water

1. A man with group B maries a woman with blood group A . what percentage of offspring will have blood group O ? show your working . **( 4marks)**
2. A) Describe the difference between a parasite and pathogen. **(4marks)**

b) list at least one disease caused by each of the following : **( 4marks)**

i) Virus

ii) Bacteria

iii) Fungi

iv) Protoctista

1. Explain the difference between natural and artificial selection. **( 4marks)**
2. Differentiate between asexual ( vegetative ) reproduction and sexual reproduction. **( 6marks)**
3. Copy and complete the following table **( 3marks)**

|  |  |
| --- | --- |
| **ORGANISMS** | **KINGDOM** |
| Bacteria | …………………………. |
| Amoeba | protista |
| Mushrooms | ………………………… |
| Beans | Plantae ( plants) |
| Man | …………………. |

1. Give at least three functions of a human skeleton. **(3marks)**
2. A) in human , sperm cells are suspended in a fluid medium . what is the main advantage gained from suspending the sperm cells in a fluid medium. **( 2marks)**

b) name the structure that serves as the exchange surface for nutrients , wastes and oxygen between mother and fetus in human females. **( 2marks)**

c) match the following terms with their functions by writing the roman number of the term and the letter for the corresponding function **( 4marks)**

Terms Functions

1. Oviduct A. Is an adaptation for internal fertilization
2. Penis B. Is the site of internal fertilization
3. Ovary C. Produces testosterone
4. Testes D. Produces estrogen and progesterone
5. A) How can you identify living things( organisms). **( 3marks)**

b) Microorganism are useful and harmful to man. Explain this statement with examples. **( 4marks)**

1. Where the following digestive substances produced ? **( 4marks)**
2. Bile
3. Amylase
4. Lipase
5. Protease
6. A) Name a flying mammal **(2marks)**

b) what is the difference between cold-blooded and warm-blooded animals? **( 4marks)**

1. A) Explain the following terms used in genetics **( 3marks)**
2. Allele
3. Heterozygous
4. Phenotype

B) in humans, brown eye ( B) is dominant to blue eye (b) . two parents , one heterozygous for eye colour and the other blues , start a family .

I) What is the genotype of the brown -eyed parent **( 2marks)**

Ii) what are the possible gametes that each parent can produce ? **(2marks)**

iii) show the possible genotypes of their children . **( 2marks)**

1. Observe the diagram below and answer the following questions

ownes

lady birds Mice

Robins

Green flies caterpillars

Earth worm

Ash three

1. Write two food chains with four organisms in each . **(4marks)**
2. Copy and complete the table below **( 4marks)**

|  |  |
| --- | --- |
| Autotrophic organisms |  |
| Secondary consumer |  |
| Omnivore |  |
| carnivore |  |

1. The experiment below is used to demonstrate a biological process

Thermometer

Visking tubing

Beaker

Sodium chloride solution, starch and diastase

Water

Visking tube is made of material which act as a semi-permeable membrane . after some time water in the beaker entered the visking tubing and water in the beaker become salty . The temperature of the experiment was kept between 350c and 400c throughout the experiment.

1. By what process has water entered the visking tubing ? **( 1marks)**
2. Give an example of the process in (a) above occurring in **( 2marks)**
3. Animal cell
4. Plant cell
5. By what process has salt entered water in the beaker ? **( 1marks)**
6. Give an example of the process in (c) above occurring in **( 2marks)**
7. Animal cell
8. Plant cell
9. Name one more substance you think has entered the water in the beaker by the same process as salt **(2marks)**
10. How can you test the presence of that substance ? give details of your test . **( 3marks)**
11. A) A bile is produced by the gallbladder . it contain no enzyme . what is its function ? **(2marks)**

b.) give at least three enzymes present in pancreatic juice and function of each. **( 6marks)**

16.a) write STDs in full and give two examples of STDs **(2marks)**

b) outline the general symptoms of STDs common on both men and women. **( 4marks)**