**FORM 4:2014 BIOLOGY REVISION QUESTIONS**

1. (a) Describe how insect pollinated flowers are adapted to pollination (10mks)

(b) Describe the role of each of the following hormones in human menstrual cycle

(i) Oestrogen

(ii)Progesterone

(ii)Luteinizing hormone (10mks)

1. Describe how excretion takes place in :

(a)Mammalian kidneys (15mks)

(b)Green plants (5mks)

1. Explain how the mammalian skin is adapted to perform its functions (20mks)
2. (a) What is meant by the term digestion (2mks)

(b) Describe how the mammalian small intestines are adapted to its functions (18mks)

1. Discuss the various evidences which show that evolution has taken place (20mks)
2. Describe the:
3. Process of inhalation in mammals
4. Mechanism of opening and closing of stomata in plants (20mks)
5. Explain how the various activities of man have caused pollution of air (20mks)
6. Describe the role of hormones in human menstrual cycle (20mks)
7. State the functions of the following parts of the mammalian ear;

(i)Tympanic membrane

(ii)Eustachian tube

(iii)Ear ossicles (10mks)

1. Describe how semi-circular canals perform their functions (10mks)
2. (a) Describe the process of fertilization in a flowering plant (15mks)

(b)State the changes that take place in a flower after fertilization (5mks)

1. Describe the role of hormones in growth and development of plants (20mks)
2. (a)Name three types of skeletons found in multicellular animals (3mks)

(b)Describe how cervical, lumbar and sacral vertebrae are suited to their functions (20mks)

1. Describe the functions of the various parts of human eye (20mks)
2. Describe how fruits and seeds are suited to their mode of dispersal (20mks)
3. Explain how abiotic factors affect plants (20mks)
4. Describe how gaseous exchange takes place in terrestrial plants (20mks)
5. Describe how human kidney functions (20mks)
6. Describe how water moves from the soil to the leaves in atree (20mks)
7. Describe the structure and functions of the various parts of the human ear (20mks)
8. Describe the causes and methods of controlling water pollution (20mks)
9. Describe the nitrogen cycle (20mks)
10. (a)State four characteristics of respiratory surfaces (4mks)

(b)Describe the mechanism of gaseous exchange in a mammal (16mks)

1. How are flowers adapted to wind and insect pollination (20mks)
2. Describe the role of liver in homeostasis in the human body (20mks)
3. Describe the working of the heart (20mks)
4. (a)Describe the circulation in mammalian heart (10mks)

(b)Describe the blood clotting process (10mks)

1. Describe how the kidney acts as an osmoregulatory organ (10mks)
2. Describe how carbon(IV)oxide is removed from the blood in the lungs (10mks)
3. Describe how the human body regulates the level of glucose (20mks)
4. Describe the mechanism of osmoregulation in mammals citing the role played by antidiuretic hormone (20mks)
5. Describe the conditions necessary for germination (20mks)
6. Describe how the male reproductive system is adapted to perform its functions (20mks)
7. Describe the process of photosynthesis
8. Describe the environmental factors that affect the rate of transpiration