

MARAKWET WEST DISTRICT

231/1

BIOLOGY

Paper 1

THEORY

July/August – 2015

MARKING SCHEME

- 1 i) Hepatic portal vein
ii) Pulmonary artery
- 2 - Inversion
- Duplication
- Non-disjunction.
- Deletion.
- Translocation.
- 3 a) Ulna
b) Radius and Humerus.
- 4 Chordata
- 5 A,B,AB,O (all be correct to score).
- 6 a) Aquatic
b) Presence of large and many air spaces for exchange of gases and buoyancy.
- 7 Acts as valves to open/close various parts of the canal/ regulation of food flow in the canal
Peristals; churning.
- 8 a) Geographical distribution;fossils records;comparative anatomy;comparative embryology;cell biology.
b) It is the modification that occurs to structures with a common embryonic origin to enable organisms with such structures to exploit different environment.
- 9 a) Short sightness/myopic.
b) i) Long eye balla / light rays outwards before reaching the eyes.
- 10 a) Anaerobic respiration
b) Carbon (iv) oxide
c) - Banking of bread
- Brewing industry
- 11 a) Skin, boccac carilog, lungs
b) It decreases the volume of thoracic cavity; and increases the pressure inside; thus air is forced out of the lungs through the air passage into the atmosphere.
- 12 a) M-moulting phrase
N-unstar / growth phrase.
b) The growth is intermittent because the grasshopper has an exxoskeleton which hinder expansion once it is shed (ecdysis) then the tissues expand (growth occurs).
c) Ensures that there is no competition for resources between the young/ larvae and adult.
- 13 a) Fruit development without fertilization.
b) Antin/ IAA
c) Escape digestion
d) Has two scars it develops from the ovary
- 14 a) i) Partition-process of giving birth
ii) Implantation-it is the attachment of blastocyst to the wall of the stems.
b) Linernizing hormones; follicle stimulating hormones.
c) Acts as shock absorber;protect the foetus from mechanical damage.

- 15 Hoenologist is the busting of the red blood cells when placed in hypertonic dilute solution while plasmolysis is the process by which plant cells lose water and become flaccid.
- 16 Provide optimum PH for enzyme activity,kill bacteria presence in food active enzymes (protease).
- 17 - Differentiated into roots,stem and leaves.
 - posses clearly defined sexual reproduction.
 - Fertilization is inadequate.
- 18 a) - Manufacture of drugs
 - Manufacture of stimulars
 - Tanning leather
 - Production of rubber.
 - Induction of polyphoidy in plants.
 b) Increase permeability of the uniferous tubules and capillaries water reabsorption.
 c) Diabetes insipidus.
- 19 a) Ligium
 b) Philosen
- 20 - Reabsorption of sugar and salt in kidney nephrons.
 - Absorption of digested food.
 - Secretion of waste products from body cells.
- 21 - Transparent to allow light penetration to photosynthesis-tissues.
 - Thin to reduce distance over which light penetrates to photosynthetic-tissues.
 - Closely fitted to protect the inner tissues.
 - Presence of stomata to gaseous exchange.
- 22 - Low energy/losss by respiration,extraction and diffusion hence the end consumer receives a lot of energy.
- 23 - There is less toxic hence does not require a lot of water for elimination.
 - Urea has small molecules that condense easily heterofiltered in the glomerulus.
- 24 So that heat energy is released in small quantities and in stages to avoid busting of the cells.
- 25 a) Open and close the stoma.

Q	R
Has chloroplast	No chloroplast
Thick inner walls	Walls are of uniform thickness
Bean loped	Rectangular shape like

- 26 a) Diaphram-Regulates the amount of light passing through the condenser.
 b) Condenser-Concentrates light on the object on the stage.
- 27 a) RNA, presence of uricil.
 b) They are inert/osmotically inactive.
- 28 a) Ecological nich-Position that an organism occupies in a habitat
 Community-Refers to all organisms belonging to different species that interact in the same habitat.
 b) i) They break down organic materials in dead organisms into simple substances which are made available for use by other organisms.
 ii) Mauntain population of organisms in an ecosystem.
- 29 a) Smooth E R Lysosomes
 b) Centrodos
- 30 Lead to extraction; reduce concentration of oxygen/air in water cause death of aquatic animals.

