

**FORM FOUR BIOLOGY
HOLIDAY ASSIGNMENT
APRIL, 2024**

EVOLUTION

- (a) Explain the meaning of organic evolution and chemical evolution
- (b) Describe the struggle for existence and survival for the fittest
- (c) Describe the evidences for organic evolution
- (d) Explain resistance of organisms to antibiotics, fungicides and pesticides.

RESPONSE IN PLANTS AND ANIMALS

- (e) Define irritability, stimulus and response
- (f) Explain differences between tactic and tropic responses and their survival values
- (g) Explain the production of plant hormones and their effects on tropisms (growth responses)
- (h) Relate the structure of the mammalian nervous system to its functions
- (i) Distinguish between simple and conditioned reflex actions
- (j) Explain the role of the endocrine system in humans
- (k) State the effects of drug abuse
- (l) Relate structure to function of the human ear and eye
- (m) Explain defects of the eye and ear
- (n) Explain correction of eye defects

SUPPORT AND MOVEMENT IN PLANTS AND ANIMALS.

- (o) Explain the necessity of support and movements in animals and plants
- (p) Describe the arrangement and the role of supporting tissues in young and old plants
- (q) List functions of the exoskeletons and endoskeletons
- (r) Describe locomotion in a named finned fish.

GENETICS

- (s) Differentiate between sickle-cell anaemia and sickle- cell trait.
- (t) Members of the same species of organism tend to differ due to variation. State **three** causes of variation in organisms.
- (u) Identify the type of gene mutations represented by the following pairs of words: -
 - (a) Shirt instead of skirt
 - (b) Hopping instead of shopping
 - (c) Eat instead of tea.
- (v) State a reason why sex – linked recessive why traits tend to effect the male child.
- (w) State the meaning of the following terms giving an example in each case:
 - (a) Sex-linked genes .
 - (b) Multiple alleles