

GATITU SECONDARY SCHOOL, P.O. BOX 327 – 01030, GATUNDU.

FORM 4 BIOLOGY MID TERM EXAMINATION. TERM 1 2016.

NAME: _____ ADM: _____ CLASS: _____

1. The diagram below show the base sequence of part of a nucleic acid strand. Observe it and answer the questions that follow.

U — T — T — A — G — C — — — — G — — — — A

i). What does each of the letters above represent. (4mks)

A

T

C

G

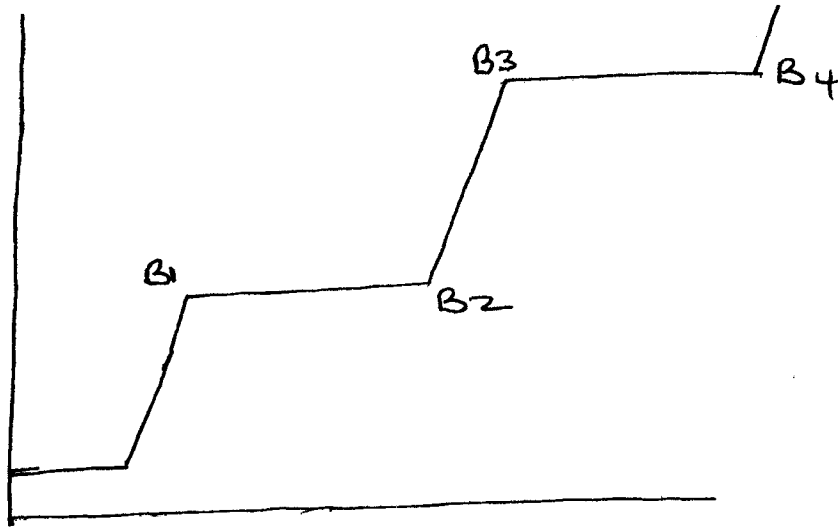
ii) State whether its RNA or DNA strand: with a reason (2mks)

iii) Show the complementary

a) DNA strand (2mks)

b) RNA strand (2mks)

2. Study the graph below which shows growth curve obtained in Arthropods.



i) Name the type of graph represented above. (1mk)

ii) Identify the phases between

a) B1 - B2 (1mk)

b) B2 - B3 (1mk)

iii) Name the hormone responsible for

i) Formation of larva cuticle _____ (1mk)

i) Moulting

(1mk)

2. Use the figures below to answer the questions.

Age in Years Birth	Height in cm 50.4	Weight in kg 3.3
1	75.00	10.3
2	87.2	12.6
3	96.0	14.5
4.	104.0	16.0
5	111.0	18.6
6	115.5	22.0
7	123.5	25.0
8.	130.0	27.3
9.	135.5	30.0
10.	141.0	33

The table shows measurement of height and weight of individuals of different ages. Study it

a) Draw two graphs using the same axes to show height & weight against different ages.
(10mks)

ii) Calculate the percentage growth in height between.

i) year 1 - 2 (2mks)

ii) Year 2 - 3 (2mks)

iii) year 3 - 4 (4mks)

iv) year 4 - 5 (4mks)

j) In which period is there the highest growth percentage rate ? (2mks)

3. In drosophila, straight wings are dominant over curved wings. What would be the result in the F:1 generation of crossing a homozygous straight winged fly and a curved wing fly. (5mks)

b) What would be the result in the F:2 generation of crossing two of the F:1 flies. (show working) (4mks)

c) How would you determine the genotype of one of the F2 straight winged flies. (2mks)

