

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

FORM 3 BIOLOGY TUNE UP EXAMINATION. TERM 2 2015

1. Give 2 reasons why animals have specialized organs for excretion as compared to plants. (2mks)
 - i) _____
 - ii) _____

2. State the use of each of the following excretory products in plants. (2mks)
 - i) Colchicine _____
 - ii) Papain _____

3. A person was found to pass out large volumes of dilute urine frequently; Name
 - i) The disease the person was suffering from (1mk)

 - ii) Hormone that was deficient (1mk)

4. State 3 ways in which respiratory surface is adapted to its functions. (3mks)
 - i)
 - ii)
 - iii)

5. Name 2 gaseous exchange structures in highes plants. (2mks)
 - i)
 - ii)

- ii. Why are gills highly vascularized. (2mks)

6. Some students used a model to demonstrate the effect of sweating on human body temperature. Two boiling tubes A and B were filled with hot water. The temperature of water in the tubes was taken at the start of the experiment and then at 5 minutes interval. The surface of tube A was continuously wiped with a piece of cotton wool soaked in methylated spirit. The results obtained are shown in the table below.

| Time (Minutes) | Temperature oC in tubes | |
|----------------|-------------------------|----|
| | A | B |
| 0 | 80 | 80 |
| 5 | 54 | 67 |
| 10 | 40 | 59 |
| 15 | 29 | 52 |
| 20 | 21 | 47 |
| 25 | 18 | 46 |

a) On the same axes, plot graphs of temperature of water in the tubes against time. (5mks)

b) At what rate was the water – cooling in tube A? (1mk)

c) Why was tube B included in the set up? (1mk)

d) Account for the rate of cooling in tube A (3mks)

e) State two processes of heat loss in tube b. (2mks)

f) What would be the expected results if tube A was insulated? (1mk)

g) What would the insulation be comparable to in:

i) Bird (2mks)

ii) Mammals?

