

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

FORM 3 BIOLOGY. TUNE UP EXAMINATION. TERM 3 2015

1. A study of Acacia tree was carried out in an African savanna grassland. The following numbers of organisms were obtained at each trophic level.

<u>Trophic Level</u>	<u>Number of Organisms</u>
Producers	3100
Primary Consumers	2600
Secondary Consumers	400
Tertiary Consumers	300

i) Draw a pyramid of numbers. (4mks)

ii) Give a reason for the large difference in the number of organisms from one trophic level to the other. (2mks)

2. The diagram below shows a biological process that occurs in chromosomes,

i) What process is illustrated by the diagram above. (1mk

ii) Name part labeled S (1mk

iii) Name 2 regions in flowering plants where this process of Meiosis takes place. (2mks

i)

ii)

3. The diagram below shows how gaseous exchange occur across the gills of a fish.

i) What is the term used to describe this type of flow displayed above. (2mks

ii) What is the advantage of this flow system. (2mks)

iii) Name an organ in humans beings which display this flow (1mk)

iv) Give 2 adaptations of aquatic plants to gaseous exchange. (4mks)

i)

ii)

4. The equation below shows what happens in cellular respiration.



i) Name the type of respiration shown and where it occurs in a cell. (2mks)

Type _____

Where _____

b) From the equation, Calculate the respiratory quotient (RQ) (3mks)

