

10. Besides acting as 'conduits' for energy transfer across trophic levels, predators play other important roles. Justify.

[2]

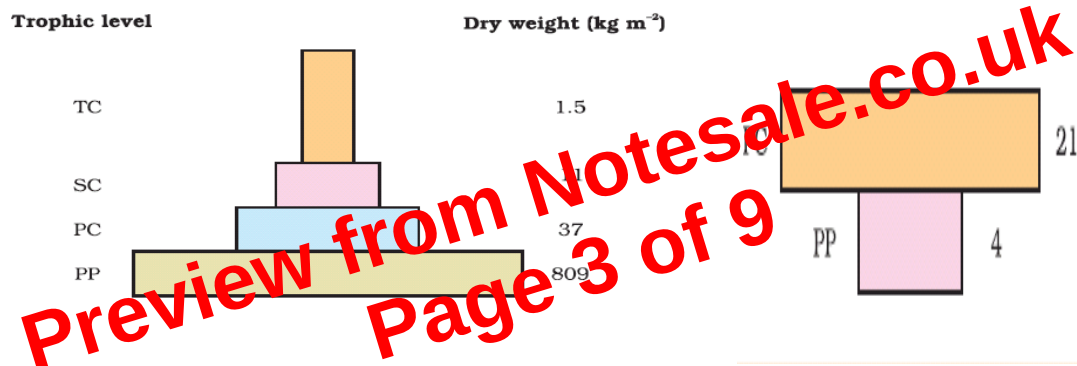
SECTION -C

11. Explain three outbreeding devices. [1+1+1=3]
12. After implantation interdigitation of maternal and foetal tissues takes place. Identify the tissues involved and justify their role.

[1+1+1=3]

13. Compare the two ecological pyramids of biomass given below and explain the situations in which this is possible. Also construct an ideal pyramid of energy if 200,000 joules of sunlight is available.

[1+2=3]



14. With respect to Messelson and Stahl's Experiment, answer the following questions:
- (a) Identify the method used to distinguish between heavy and light isotopes of nitrogen.
- (b) With the help of diagrams, compare the results for the DNA isolated after 20 minutes of experiment with the DNA which was isolated after 40 minutes.

[1+2=3]

15. A student was simulating Urey and Millers experiment to prove the origin of life. The set up used by the student is given –