

# **MODULE 2/3 BIOLOGY**

## **WORKSHEET 02**

### **CHAPTER 13**

### **ORGANISMS AND POPULATIONS**

Question 1. Define population and community.

Question 2. What does S-shaped pattern of population growth represent? How is T-shaped pattern different from it and why?

Question 3. Define 'zero population growth rate'. Draw an age pyramid for the same.

Question 4. An individual and a population has certain characteristics. Name these attributes with definitions.

Question 5. The following diagrams are the age pyramids of different populations. Comment on the status of these populations.

Question 6. A population of *Paramecium caudatum* was grown in a culture medium. After 5 days the culture medium became overcrowded with *Paramecium* and had depleted nutrients. What will happen to the population and what type of growth curve will the population attain? Draw the growth curve.

Question 7. In an aquarium two herbivorous species of fish are living together and feeding on phytoplanktons. As per the Gause's Principle, one of the species is to be eliminated in due course of time, but both are surviving well in the aquarium. Give possible reasons.

Question 8. Does light factor affect the distribution of organisms? Write a brief note giving suitable examples of either plants or animals.

Question 9. If a population growing exponentially double in size in 3 years, what is the intrinsic rate of increase ( $r$ ) of the population ?

Question 10. What is Age pyramid? What are the different types of age pyramid?