

### **Chapter 13 : Organisms and Population**

- (1) Association between sea anemone and Hermit crab in gastropod shell is that of ..... .
- (a) mutualism (b) commensalism  
(c) parasitism (d) amensalism
- (2) Growth of bacteria in a newly inoculated agar plate shows ..... .
- (a) exponential growth (b) logistic growth  
(c) Verhulst-Pearl logistic growth (d) zero growth
- (3) What is the source of energy in the depths of more than 500 m in the oceans?
- (a) Sunlight (b) Wind energy  
(c) Dead and decaying matter (d) Phytoplankton
- (4) What is Allen's rule?
- (a) Mammals from colder climates generally have shorter ears and limbs to minimise heat loss.  
(b) Mammals have constant temperature of the body in spite of their varied habitats.  
(c) Mammals can be oviparous at times.  
(d) The ecosystem of cold climate regions is equally occupied with mammals, birds and reptiles.
- (5) Select the statement which explains best parasitism.
- (a) One species is benefited.  
(b) Both the species are benefited.  
(c) One species is benefited, other is not affected.  
(d) One species is benefited, other is harmed.
- (6) World ozone day is celebrated on ..... .
- (a) 5th June (b) 16th September  
(c) 1st October (d) 23rd October
- (7) If in a pond there were 200 lotus plants last year and through reproduction 20 new plants are added, taking the current population to 220, what is the natality rate of the lotus for that year?
- (a) 0.2 (b) 0.4 (c) 0.1 (d) 1.0

- (8) On which of the following factors is growth rate of a population dependent?  
 (a) Density and natality (b) Natality and age structure  
 (c) Mortality and density (d) Natality and mortality
- (9) When pre-reproductive and post-reproductive age group is same in structure, the population is .....  
 (a) declining (b) increasing (c) steady (d) disappearing
- (10) Gause's 'Competitive Exclusion Principle' can work only when .....  
 (a) the resources are limited  
 (b) the resources are abundant  
 (c) the inferior species and superior species do not need same resources  
 (d) only when there is interspecific competition
- (11) Pick out the appropriate association representing brood parasitism. (**March '22**)  
 (a) Hermit crab and sea anemone  
 (b) Asian koel and common Indian crow  
 (c) Algae and fungi  
 (d) Buffalo and cattle egret
- (12) *Calotropis* plant is poisonous for herbivores as it is rich in .....  
 (a) opium (b) cardiac glycosides  
 (c) quinine (d) strychnine

**Ans. (1)** (b) commensalism **(2)** (c) Verhulst-Pearl logistic growth **(3)** (c) Dead and decaying matter **(4)** (a) Mammals from colder climates generally have shorter ears and limbs to minimise heat loss **(5)** (d) One species is benefited, other is harmed **(6)** (b) 16th September **(7)** (c) 0.1 **(8)** (a) Density and natality **(9)** (c) steady **(10)** (a) the resources are limited **(11)** (b) Asian koel and common Indian crow **(12)** (b) cardiac glycosides.