



INDIAN SCHOOL AL WADI AL KABIR

Class: XII	Department: SCIENCE 2020 -2021 SUBJECT : BIOLOGY	Date of submission: 16.04.2020
Worksheet No: 01	UNIT: ECOLOGY Chapter: ORGANISMS AND POPULATIONS	Note: A4 FILE FORMAT
NAME OF THE STUDENT	CLASS & SEC:	ROLL NO.

MULTIPLE CHOICE QUESTIONS

- According to Allen's Rule, the mammals from colder climates have:
 - shorter ears and longer limbs
 - longer ears and shorter limbs
 - longer ears and longer limbs
 - shorter ears and shorter limbs
- Formation of tropical forests needs mean annual temperature and mean annual precipitation as:
 - 18 – 25°C and 150 – 400 cm
 - 5 – 15°C and 50 – 100 cm
 - 30 – 50°C and 100 – 150 cm
 - 5 – 15°C and 100 – 200 cm
- What parameters are used for tiger census in our country's national parks and sanctuaries?
 - Pug marks only
 - Pug marks and faecal pellets
 - Faecal pellets only
 - Actual head counts
- Which of the following would necessarily decrease the density of a population in a given habitat?
 - Natality > mortality
 - Immigration > emigration
 - Mortality and emigration
 - Natality and immigration
- Amensalism is an association between two species where:
 - One species is harmed and other is benefitted
 - One species is harmed and other is unaffected
 - One species is benefitted and other is unaffected
 - Both the species are harmed.

6. Which of the following is a partial root parasite?
 - a. Sandal wood
 - b. Mistletoe
 - c. Orobanche
 - d. Cuscuta
7. Lichens are the associations of:
 - a. bacteria and fungus
 - b. algae and bacterium
 - c. fungus and algae
 - d. fungus and virus
8. Identify the type of interaction exhibited by cuckoo and crow:
 - a. Ectoparasitism
 - b. Endoparasitism
 - c. Brood parasitism
 - d. Both (a) and (b)
9. Growth of bacterial colony under laboratory condition with plenty supply of culture medium shows
 - a. Exponential growth
 - b. Logistic growth
 - c. Geometric growth
 - d. Both (a) and (c)
10. Which among the following is an adaptation seen in kangaroo rat
 - a. CAM pathway
 - b. Low haemoglobin affinity
 - c. Use of internal fat oxidation
 - d. Presence of blubber

TWO MARK QUESTIONS

11. Write any two reasons for the formation of major biomes.
12. Desert plants can do photosynthesis even though their stomata remain closed during day time. Give reason.
13. Give any one example of brood parasitism.
14. Mention the adaptations the mammals of colder areas have.
15. When does a population growth curve assume J-shape?

THREE MARK QUESTIONS

16. What are the two forms of population growth? Explain.
17. Water is very essential for life. Write any three features for plants and animals which enable them to survive in water scarce environment.
18. Write the importance of measuring the size of a population in a habitat or an ecosystem.
19. While living in and on the host species, the animal parasite has evolved certain adaptations. Give examples.
20. Climbers are vascular plants rooted in the ground and maintain erectness of their stem making use of other plants. Discuss the type of association between that type of climbers and host plants.

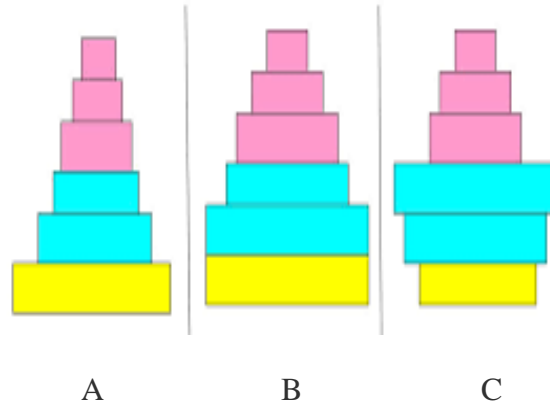
FIVE MARK QUESTIONS

21. (a) List any four abiotic components that lead to variations in the physical and chemical conditions of different habitats.
(b) Explain the impact of these components on the distribution of organisms in different habitats.
22. (a) List any three ways of measuring population density of a habitat.
(b) Mention the essential information that can be obtained by studying the population density of an organism
23. (a) Write the adaptations present in the following cases:
(i) *Opuntia*
(ii) Seals
(iii) Archaeobacteria
(iv) Marine invertebrates in deep ocean
(v) Desert lizard
(vi) Humans going to high altitude
- (b) Identify the type of interaction mentioned in the following examples and give another example for each one.
(i) The cattle egret and grazing cattle
(ii) Fungi and roots of higher plants

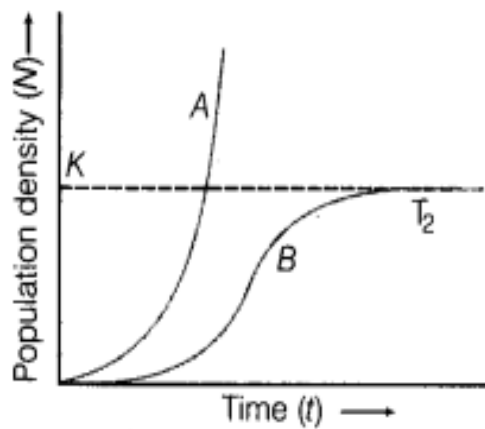
PREVIOUS BOARD QUESTIONS

24. List the different ways by which organisms cope or manage with abiotic stresses in nature. Explain any three ways listed.
25. (a) Why are herbivores considered similar to predators in the ecological context? Explain.
(b) Differentiate between the following interspecific interactions in a population?
(i) Mutualism & competition (ii) commensalism & amensalism
26. A population of *Paramecium* was grown in a culture medium. After 5 days the culture medium became overcrowded and had depleted nutrients. What will happen to the population and what type of growth curve will the population attain? Draw the growth curve.
27. (a) Explain the birth rate in a population by taking a suitable example.
(b) Write the other two characteristics which only a population shows but an individual cannot.
28. Mr. Ram on a trip to Rohtang Pass Suddenly experienced heart palpitations, nausea, fatigue etc. on reaching the destination. Suggest the reasons for his sudden deterioration of health and also state whether his body will withstand this problem if he stays there for long and how?

29. Study the age pyramids, A, B and C of the human population given below and answer the questions that follow



- (a) Identify pyramids 'B' and 'C'
 (b) Write the basis on which the above pyramids are plotted
30. Study the population growth curve given below and answer the questions that follow



- (a) Identify 'A' and 'B' shown in the graph
 (b) When and why do such curves occur in a population?

Prepared by Ms. Rejitha S

CHECKED BY HOD -SCIENCE