ORGANISMS AND POPULATIONS

1. At organismic level which type of ecology exists

(1) Synecology

(2) Physiological ecology

(3) Behavioural ecology

(4) Systematic ecology

2. Formation of different kind of biomes depends on

(1) Light (2) Temperature

(3) Precipitation (4) Both 2 and 3

3. Regional and local variation within each biome lead to formation of –

(1) Climate (2) Weather

(3) Habitat (4) Niche

4. What is / are key elements that leads to so much variation in the physical and chemical conditions of different habitats?

(1) Temperature (2) Water and light

(3) Soil (4) All above

5. Temperature is the most ecologically relevant environmental factor. In which of the following habitats temperature can exceed 100° C ?

(1) Tropical desert

(2) Thermal springs

(3) Deep sea hydrothermal vents

(4) Both 2 and 3

6. Find out the correct match with reference to their habitat –

(1) Mango tree – Canada

(2) Snow leopards – Kerela forest

(3) Tuna fish – Temperate latitudes in oceans

(4) Lion – Gujarat

7. Temperature is one of the important abiotic factor. Significance of temperature on living beings can be realised through –

(1) Kinetics of enzymes

(2) Basal metabolism

(3) Physiological functions

(4) All the above

8. Next to temperature, water is the most important factor influencing the life of organism. Which among the following water characteristics is not an influencing character?

(1) pH (2) Turbidity

(3) Colour (4) Salinity

9. What is the salinity of hypersaline lagoons?

(1) 5 ppt

(2) 30–35 ppt

(3) More than 100 ppt

(4) Less than 50 ppt

10. Among the following algae that inhabit the sea, which is likely to be found in the deepest water?

(1) Red algae (2) Brown algae

(3) Green algae (4) Golden brown algae

11. Percolation and water holding capacity of soil does not depend on –

(1) Soil composition (2) Biota

(3) Size of grains (4) Aggregation

12. Which of the following is main reason for non occurence of small size conformers ?

(1) Karyoplasmic index

(2) Area : volume ratio

(3) Basal metabolism

(4) All the above

13. Which of the following alternative used by zooplanktons to overcome partial stressful conditions ?

(1) Migration (2) Diapause

(3) Hibernation (4) Aestivation

14. Majority of plants belongs to which of the following category

(1) Regulators

(2) Conformers

(3) Partial regulators

(4) Eurytherms

15. Shortening of ears, limbs and other extremeties of mammals so that heat loss can be minimise, is associated with –

(1) Allen's rule (2) Bergeman's rule

(3) Jordan's rule (4) Rensch's rule

16. Altitude sickness can be seen at which specific height ?

(1) < 3500 m (2) > 3500 m

(3) 5300 m (4) < 530 m

17. Which of the following is not an adaptation for altitude sickness ?

(1) Increase in red blood cell production

(2) Decrease in binding capacity of oxygen with haemoglobin

(3) Increased breathing rate

(4) Increased heart palpitations

18. Behavioural response to cope with variations in the environment can be seen in

(1) CAM plants

(2) Opuntia plant

(3) Desert lizards

(4) C_4 - plants

19. Population ecology is an important area of ecology because it links ecology with

(1) Population genetics (2) Evolution

(3) Physiognomy (4) Both 1 and 2

20. The tiger counting in our national parks and tiger reserves is often based on

(1) Pug marks (2) Manual counting

(3) Fecal pellets (4) Both 1 and 3

21. Match the following

(a)	Breeding once in life	(i)	Mammals
(b)	Breeding several times in life	(ii)	Oysters
(c)	Large number of small sized offsprings	(iii)	Most of birds
(d)	Small number of large sized offsprings	(iv)	Pacific salmon fish

(1) a(iv), b(ii), c(iii), d(i) (2) a(iv), b(iii), c(ii), d(i)

(3) a(iii), b(iv), c(ii), d(i) (4) a(ii), b(iii), c(iv), d(i)

22. Match the following given population interactions

(a)	+ / +	(i)	Predation
(b)	– / –	(ii)	Ammensalism
(c)	+ / –	(iii)	Competition
(d)	– / 0	(iv)	Mutualism

(1) a(i), b(ii), c(iii), d(iv) (2) a(i), b(iii), c(ii), d(iv)

(3) a(iv), b(iii), c(i), d(ii) (4) a(iv), b(iii), c(ii), d(i)

23. The famous 'Australian havoc' is associated with which of the following invasive species :-

(1) Nile pearch (2) Princkly pear cactus

(3) Red fox (4) Rabbit

24. In rocky intertidal communities removal of which of the following predator became the cause of destruction of 10 species of invertebrates?

(1) Monarch butterfly

(2) Starfish pisater

(3) *Paramecium aurelia*

(4) Abingdon tortoise

25. Phytophagous insects show which of the following interaction :-

(1) Predation

(2) Competetion

(3) Mutualism

(4) Commensalism

26. Which of the following cannot be used by prey for defence against predator :-

(1) Cardiac glycosides (2) Strychnine

(3) Nectar (4) Quinine

27. Regarding competition find out the wrong statement.

(1) Unrelated species could compete for same resource

(2) Fitness of one species is lowered in presence of other species

(3) Abingdon tortoise become extinct due to competitor starfish

(4) *Balanus* leads to exclusion of Chathamalus from rock coasts of scotland

28. Which of the following mean was used by warblers to avoid competition and coexist

(1) Difference in foraging activities

(2) Habitat fragmentation

(3) Competitive release

(4) All of these

29. Which of the following is not an adaptation of parasites for assurance of parasite host interaction

(1) Loss of sensory organs

(2) Presence of adhesive organs

(3) Loss of digestive system

(4) Low reproductive potential

30. Which of the following match is incorrect for commensalism interaction?

(1) Epiphytes on trees

(2) Egrets with grazing cattles

(3) Hermit crab and sea anemone

(4) Sea anemone and clown fish

31. During interaction between sea anemone and clown fish, which get benefitted :-

(1) Sea anemone only (2) Clown fish only

(3) Both (4) Neither 1 nor 2

32. Which of the following is not an example of coevolution?

(1) Orchid and Bee

(2) Opuntia and Cactophagous moth

(3) Yucca and Pronuba

(4) Wasp and Fig

ANSWERS KEY

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ans.	**2**	**4**	**3**	**4**	**4**	**4**	**4**	**3**	**3**	**1**	**2**	**2**	**2**	**2**	**1**	**2**	**4**	**3**	**4**	**4**
Que.	21	22	23	24	25	26	27	28	29	30	31	32								
Ans.	**2**	**3**	**2**	**2**	**1**	**3**	**3**	**1**	**4**	**3**	**2**	**2**								