

**NEET Biology MCQ**  
**Chapter-13 Organism and population**

1. What is true for the following statements ?

Statement X : Migration of birds is influenced by light.

Statement Y : Reproduction of birds is influenced by light.

Statement Z : In all birds gonads are activated due to increase in intensity of light during summer.

- |     | X     | Y     | Z     |
|-----|-------|-------|-------|
| (a) | True  | False | False |
| (b) | False | True  | False |
| (c) | True  | True  | True  |
| (d) | True  | True  | False |

2. What is true for the given statements ?

Statement X : Birds and Mammals obtain greater body size in cold region than in warm regions.

Statement Y : Birds and Mammals are Homeothermic  
(warm blooded) animals.

Statement Z : Reptiles are smaller in cold region.

- |     |       |       |       |
|-----|-------|-------|-------|
| (a) | True  | False | True  |
| (b) | True  | True  | False |
| (c) | True  | True  | True  |
| (d) | False | True  | True  |

3. "Spiny lizard" absorbs water from the atmosphere which is appropriate similar functional option for the statement ?

- |                     |                                 |
|---------------------|---------------------------------|
| (a) Tongue of Human | (b) Hygroscopic roots of orchid |
| (c) Roots of plants | (d) None of these               |

4. What is true for the following statements ?

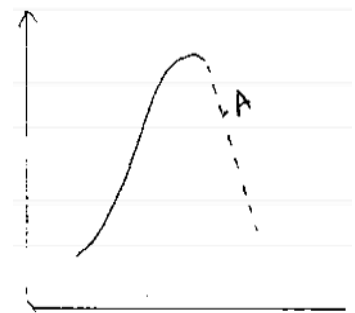
Statement X : Marine fishes have chlorine secretory cells.  
while riverine fishes have chlorine cells.

Statement Y : Compared to marine water, fluid present  
in fish is hypotonic while riverine water  
is hypertonic compared to fluid  
present in fish.

- |   |   |   |   |
|---|---|---|---|
| X | Y | X | Y |
|---|---|---|---|

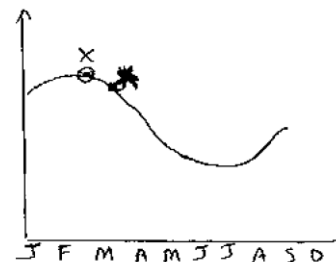
- (A) True True                      (C) True False  
 (B) False False                    (D) False True
5. Which animal is capable of obtaining water by oxidation of lipid.  
 (a) Rat                      (b) Earthworm      (c) Mole      (d) Kangaroo rat
- 6 Which is the example of intraspecific competition for food ?  
 (a) Barnacle on rocks of the submerged water  
 (b) Two female dogs and two male dogs  
 (c) Various types of lichens  
 (d) Paramecium caudatum and P. aurelia in laboratory.
- 7 Name the animals with freshwater habit in which  
 (i) endosmosis is possible  
 (ii) Excess water is removed by green glands  
 (iii) Green glands remove water in the form of urine  
 (a) Fresh water fishes                      (b) ophioccephalus  
 (c) Crustacean astacus                      (d) None of these
8. In snakes realised (actual) natality is less than potential natality; because.....  
 (a) all the eggs are not incubated  
 (b) environmental boomrang (resistance)  
 (c) Though eggs are incubated they do not reach up to adult stage.  
 (d) All of these.
9. Identify me " My functioning is like an orchid.  
 (a) Protopterus                      (b) Spiny lizard  
 (c) uromastix                      (d) Spiny platypus
10. Crustacean Astacus = Green land  
 Marine turtle  
 what is 'X' according to the information given ?  
 (a) Salt gland                      (b) Kidney  
 (c) None of these                      (d) chlorine secretory cells
11. Which of the following is correct statement ?  
 (a) uromastix lizard stores water in the intestine  
 (b) Camel stores water in its stomach  
 (c) Anabrus develops accessory respiratory organs to respire in water.  
 (d) Kangaroo rat undergoes hibernation.
12. Parasitic animal which is part of bio-geo community and included as zooplankton and mesofauna of terrestrial ecosystem is ....  
 (a) Moles                      (b) mites                      (c) Earthworms                      (d) leech

13. From the given option which is the appropriate for ecto parasite animal Ascaris, Tapeworm, plasmodium, mites  
 (a) phytoplanktons (b) mesofauna  
 (c) macrofauna (d) phytoplanktons and mesofauna.
14. Which living organism is seen in the hot water spring having temperature more than  $100^{\circ}\text{C}$ ..  
 (a) Methanogens (b) Thermoacidophils  
 (c) Helophytes (d) spirokit
15. Find out population density.  
 Since last 4 years number of lions in a square forest is 500 (length of forest = 10 km)  
 (a) 1.25 lions/year . k meter<sup>2</sup>  
 (b) 12.5 lions/ k meter<sup>2</sup> - year  
 (c) 1.025 lions/ cm<sup>2</sup> month  
 (d) (d) 12.5 lions/ k meter<sup>2</sup> - month
16. Average human population in a certain time area is 5000 in which 1111 children are produced during an years, find out the birth rate ?  
 (a) 0.1111 (b) 0.3333 (c) 0.2222 (d) 0.4444
17. In birthrate and deathrate is equal, then what will be the Vital Index ?  
 (a) = 1 (b) = 100 (c) >100 (d) <100
18. Which option is correct for the given statement .  
 Statement X : Density dependent factors are intrinsic Reason R : They are generated in population only  
 (a) Both statement are true  
 (b) Both statement are false  
 (c) X is true, y is false  
 (d) X is false, Y is true
19. In a population of frog 'J' type of population growth curve is seen than which information from the given graph can be true for " point A"  
 (i) Vital Index < 100  
 (ii) Birth rate < death rate  
 (iii) Birth rate > death rate  
 (a) I  
 (b) II, III  
 (c) I, III  
 (d) I, II



20. The given graph shows seasonal changes in the population of Birds of Gujarat in the year 2002. In the given graph what is true for point X ?

(a) Vital Index < 100  
 (b) Vital Index > 100  
 (c) Vital Index = 100  
 (d) None of these

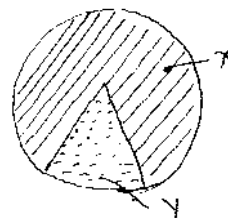


21. Producers → Decomposers → 'X', then what will be 'X' ?

(a) Nostoc  
 (b) Fungi  
 (c) Both of these  
 (d) None of these

22. In given chart, what is the problem seen in living organism staying in 'X' denoted area ?

(a) endosmosis  
 (b) exosmosis  
 (c) a & b both  
 (d) getting water and maintaining it.



23. What is correct for the given statement ?

Statement P : Environmental study is linked with ecology  
 Statement Q : Ecology is included in environmental study.

(a) Both statements are true  
 (b) Both statements are wrong  
 (c) P is right and Q is wrong  
 (d) P is wrong and Q is right

24. What is the vital index, if Birth rate is 0 and Death rate = 5 ?

(a) 0 (b) 100  
 (c) 1 (d) None of these

25. If the Birth rate is 10 and death rate is 0 then what is VITAL INDEX ?

(a) 0 (b) 100 (c) Infinite (d) 1

26. Which is appropriate for the following statement ?

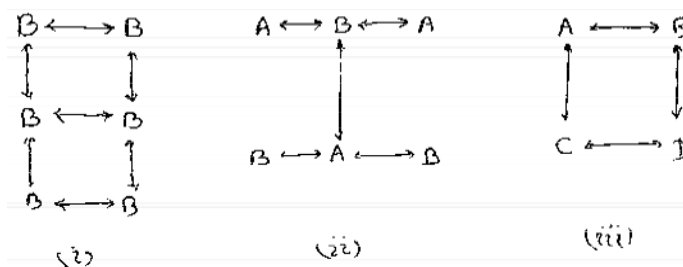
Statement X : Pacific salmon fish reproduces only once in its life time.

Statement Y : In a reproductive season it lays 2,80,000,000 eggs.

X Y

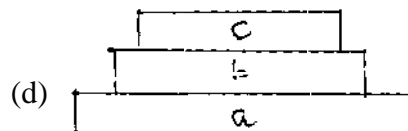
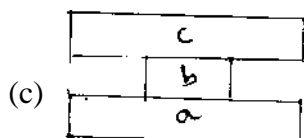
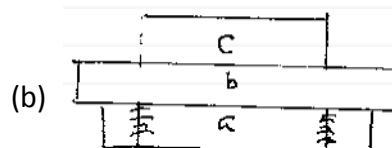
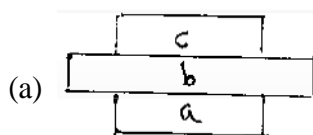
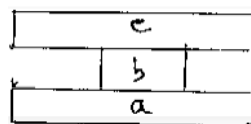
(a) True True  
 (b) False False

- (c) True      False  
(d) False      True
27. Mycobiont supplies X to phycobiont and phycobiont supplies Y to mycobiont, then what is true for X and Y ?  
 (a) X : Mineral element ; Y : Habitat  
 (b) X : organic nutrients ; Y : Inorganic Nutrient  
 (c) X : Habitat                      Y : protection  
 (d) X : Minerals                      Y : organic nutrients
28. A plant formed by the combination of algae and fungi is a pioneer of which type of succession ?  
 (a) Xerosere      (b) Hydrosere      (c) Mesosere      (d) None of these
29. Y  $\rightarrow$  X having interspecific relations in which animal which is not affected is X shows excretory products which are also seen in Y and is Z located in its gills then.... what are X,Y,Z - ?  
 (a) X = Termite                      (b) X = shark      Y  
     = flagellates                      Y = Tortoise  
     Z = Tentacles                      Z = Chlorine cell  
 (c) X = shark                      (d) All of these (above)  
     Y = fish  
     Z = chlorine secreting cells
30. what does the given graph shows



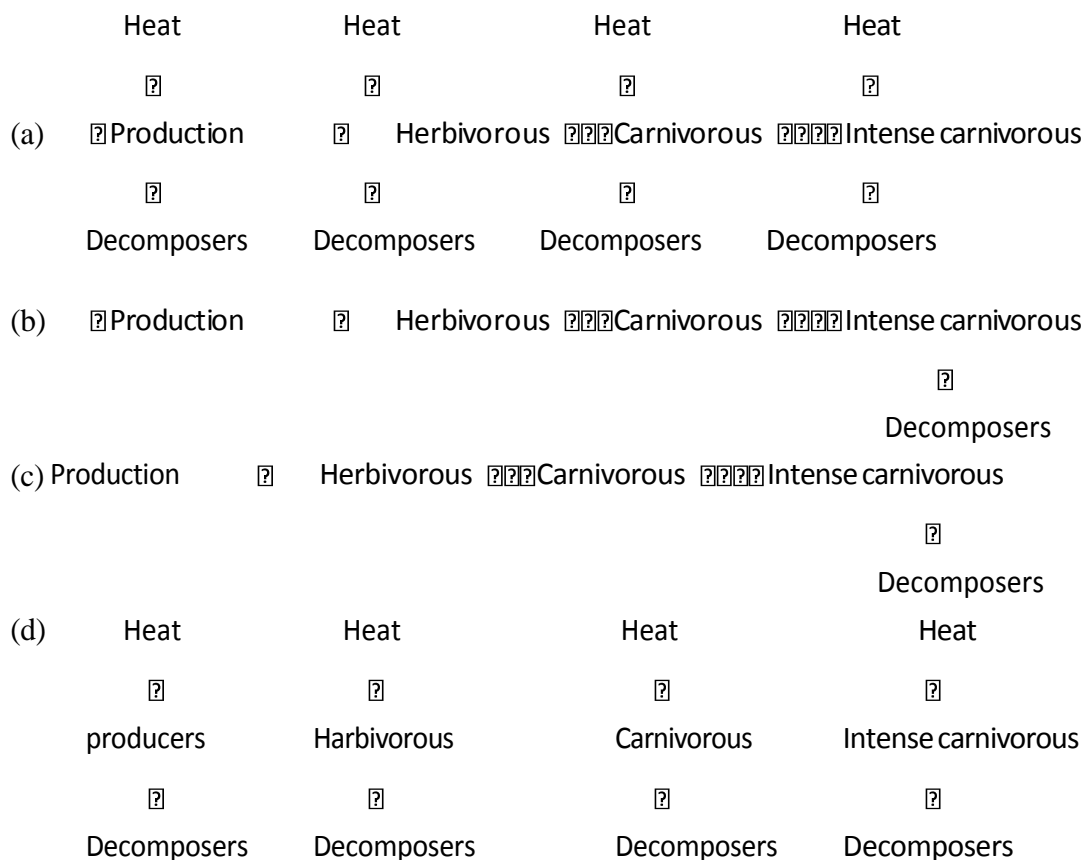
- (a) (i) Community Ecology                      (b) (i) Population Ecology  
     (ii) Population Ecology                      (ii) Community Ecology  
     (iii) Population Ecology                      (iii) Ecosystem Ecology
- (c) (i) Population Ecology                      (d) None of these  
     (ii) Community Ecology  
     (iii) Community Ecology
31. In a population of salmon fish, potential Natality is 10,000 while realised mortality is 200, then the Vital Index =  
 (a) 50,                      (b) less than 50                      (c) more than 50      (d) None of these
32. Which of the following is not possible in ecosystem where microflora is absent  
 (a) Photosynthesis (b) Decomposition                      (c) Assimilation      (d) None of these  
 (b)

33. If marine fish is kept in fresh water, will it survive
- Yes, If chloride cells are placed in its kidney
  - Yes, If chloride cells are placed in its green gland
  - No, Because it can not adapt
  - No, they can not survive but of young ones hatching out of their eggs can survive
34. What is true for both the organism showing interspecific competition ?
- Both are benefited
  - more or less harmful effect to both
  - one is benefited where as other is at loss
  - None of these
35. If at "t" time population density is N, then what is the equation for the population density at (t+1) time ?
- $N(t+1) = Nt - [CD+E] - [B+I]$
  - $N(t+1) = Nt+B+I-D-E$
  - $N(t+1) = Nt+(B+I)-(D+E)$
  - All of these
36. Write appropriate option for antibiosis
- Penicillium fungi and certain gram +ve bacteria
  - Penicillium fungi and certain gram -ve bacteria
  - Spirochaete and nematodes
  - None of these
37. The graph of age related distribution in a village is as following If during 1 year potential mortality = realized mortality, then which type of graph is seen after 1 year ?



38. What is true with the respect to energy flow ?

**Figure**



39. In which subdivision of aquatic ecosystem thermal stratification is seen ?

- (a) marine (b) deep fresh water habitat  
(c) marine and fresh water area (d) None of these

40. In which of the following aquatic ecosystems habitat fluid (liquid) is very concentrated compared to body fluid ?

- (a) Marine (b) Estuarine (c) Riverine (d) pond.

41. Which of the following is true with reference to temperature difference ?

- (a) 1. Terrestrial Habitat > Aquatic Habitat  
2. Sea < Deep fresh water lakes  
(b) 1. Aquatic Habitat > Terrestrial Habitat  
2. Sea < Deep fresh water lake  
(c) 1. Terrestrial Habitat = Aquatic Habitat  
2. Sea < Deep fresh water lake  
(d) 1. Terrestrial Habitat < Aquatic Habitat  
2. Sea = Deep fresh water lake

42. Water holding capacity of land depends on ?

- (a) Soil composition (b) Grain size

(c) Aggregation of grain

(d) All of these

43. What true for the following statements ?

Statement X : During evolution many species, by continuous development of their internal environment, made their physiological processes more efficient.

Statement Y : Organisms show adaptations in order to survive in the environment

- |     |            |     |             |
|-----|------------|-----|-------------|
| X   | Y          | X   | Y           |
| (A) | True True  | (C) | True False  |
| (B) | False True | (D) | False False |

44. In which of the following organism water is stored in its transformed form and not water as such ?

- |                         |               |
|-------------------------|---------------|
| (a) camel               | (b) Uromatrix |
| (c) Spiny tailed lizard | (d) rat       |

45. Which path is followed by plants as a part of adaptation in an ecosystem where Kangaroo rat is living?

- |              |              |
|--------------|--------------|
| (a) C3 Path  | (b) C4 Path  |
| (c) CAM Path | (d) TCA Path |

46. Which is true for the following statements ?

Statement X : Cursorial animals have spindle shaped body

Statement Y : Because of narrow head they can prepare burrow properly X Y

- |           |       |
|-----------|-------|
| (a) True  | False |
| (b) False | True  |
| (c) False | False |
| (d) True  | True  |

47. What is the temperature at which archeobacteria can survive ?

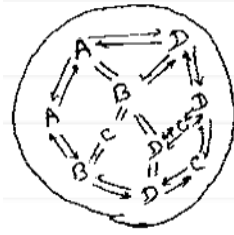
- |                          |                           |                           |                  |
|--------------------------|---------------------------|---------------------------|------------------|
| (a) $90^{\circ}\text{C}$ | (b) $100^{\circ}\text{C}$ | (c) $110^{\circ}\text{C}$ | (d) All of these |
|--------------------------|---------------------------|---------------------------|------------------|



48. To whom can we correlate the young one developing from the eggs of Daphnis which are laid at normal room temperature ?  
 (i) queen bee (ii) worker bee (iii) male (drone) bee  
 (a) i, ii (b) i, iii (c) ii, iii (d) i, ii, iii
49. Which is appropriate option if we take 'T' for correct statement and 'F' for wrong statement ?  
 (i) Energy pyramids are always upright.  
 (ii) Detritus food chain begins with dead organic matter  
 (iii) C4 path is the only path seen in xerophytes  
 (iv) Biodiversity is less in equatorial region because of more sunlight  
 (v) At normal Temperature daphnis lays parthenogenetic eggs. which develops into male (♂)  
 (a) TFTTF (b) TFFFF  
 (c) FFFTF (d) TFTTF
50. Increase and decrease in a population in one of the places in USA, because of sandy cyclone is given below.  
 Which type of graph is possible for total no. of individuals in a population v/s month ?
- | Month     | Birth rate | Imigration | Death | Emigration |
|-----------|------------|------------|-------|------------|
| July      | 40         | 100        | 30    | 20         |
| August    | 100        | 200        | 50    | 45         |
| September | 200        | 800        | 100   | 10         |
| October   | 100        | --         | 5000  | 3000       |
- (a) S. Shaped (c) irrupative  
 (b) J. Shaped (d) None of these
51. Hygroscopic skin is seen in.....  
 (a) Kangaroo rat (b) Uromatrix  
 (c) Spiny tailed lizard (d) Camel
52. What is true for marine animals ?  
 (a) Because of exosmosis they drink sea water  
 (b) As they drink sea water exosmosis occurs  
 (c) Because of exosmosis body fluid become hypotonic, so they drink sea water  
 (d) None of these
53. In order to find out VITAL INDEX in Rampur Village, following information was gathered  
 Death Rate =  $1/x$  Birth Rate =  $z$   
 Average population =  $1/y$   
 What is the Vital Index ?  
 (a)  $xyz \times 100$  (b)  $z/xy = 100$   
 (c)  $xy/z \times 100$  (d)  $100/xyz$

54. What is the true for the community ecology diagram ?

- (a) Involvement of 4 individuals of a population
- (b) Involvement of 4 population of a species
- (c) Involvement of 4 species of a community
- (d) Involvement of 4 species of 4 ecosystem



55. Match the column I with column II

Column I

Column II

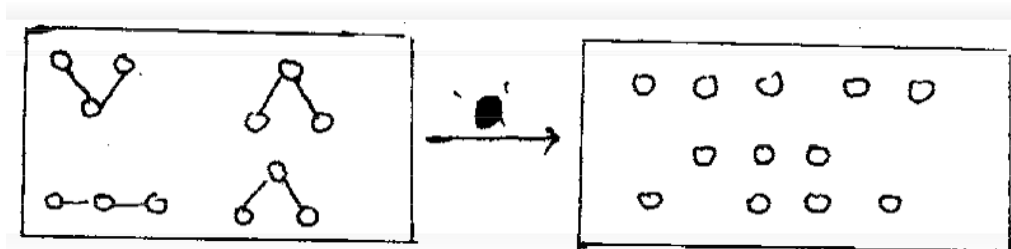
- |                   |                                |
|-------------------|--------------------------------|
| (1) Astacus       | (p) Hydrophilic skin           |
| (2) Marine turtle | (q) green gland                |
| (3) Spiny lizard  | (r) water storage in intestine |
| (4) Uromatrix     | (s) salt glands                |

- |                         |       |                         |       |
|-------------------------|-------|-------------------------|-------|
| (a) (1-q), (2-s), (3-p) | (4-r) | (b) (1-s), (2-q), (3-p) | (4-r) |
| (c) (1-s), (2-p), (3-q) | (4-r) | (d) (1-p), (2-q), (3-s) | (4-r) |

56. Which of the following is incorrect if 'O' sign is used for beneficial and '+' sign for harmful ?

- (a) Penicillium <--> Gram +ve bacteria ; Penicillium: '+'
- (b) Rhizobium <---> plant - leguminosae family: Both 'O'
- (c) Tiger <--> Rabbit ; Tiger : 'O'
- (d) Shark fish <---> Suckerfish ; Suckerfish ; 'O'

57. What will happen if 'X' which is related to this reaction is absent ?



- (a) Decomposition, essential process like death, will stop
- (b) Damage to ecosystem
- (c) Beginning of the food chain is not possible
- (d) All the statements given are correct

58. In the section of lichen which layer is seen just below "upper cortex"

- (a) Medulla
- (b) Algal layer
- (c) lower cortex
- (d) All of these

59. What is true for the given statements ?

Statement X : Protopterus aestivate during winter to overcome dry period Statement Y: The process of aestivation in protopterus is to overcome unfavourable condition

- (a) Both statements are true
- (b) X-Correct Y- wrong
- (c) Both statements are wrong
- (d) X- wrong Y-correct

60. What is true for the given statement ?

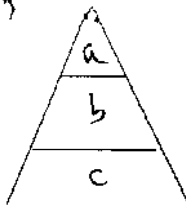
Statement X : Most of the animals and almost all the plants cannot keep up their internal environment constant

Statement Y: process of osmoregulation in plants is an example of this

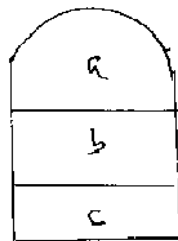
- (a) Both statements are true
- (b) X - correct, Y- wrong
- (c) Both statements are wrong
- (d) X- wrong, Y-correct

61. which type of pyramid is true for the population having more number of pre reproductive and reproductive age group ?

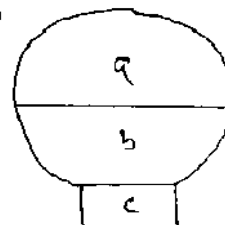
(A)



(B)



(C)



(D)

None

a = post reproductive age group

b = reproductive age group

c = pre reproductive age group

62. X= Arthropods, Y= Mollusca, z = Coelenterates :-If the X by using Y, lives beneficial life with z, then which of the following is correct example ?

- (a) X = cockroach Y = pearl oyster Z = Hydra
- (b) X = Millipede Y = pila Z = jellyfish
- (c) X = Hermit crab Y = Gastropoda Z = sea anenone
- (d) All of these

63. From the given option find out the correct pair ?

- (a) Mesofauna - Earthworm
- (b) Macrofauna - spider

- (c) Microfauna - fungi  
(d) None of these

64. Match column I with column II

**Column - I**

1. Mutualism
2. Competition
3. Predation
4. Parasitism

**Column - II**

- (p) Barnacles  
(q) Tiger  
(r) Mites  
(s) Sea anemone

- (a) (1-s), (2-r), (3-p) (4-q)      (b) (1-r), (2-s), (3-q) (4-p)  
(c) (1-s), (2-p), (3-q) (4-r)      (d) (1-q), (2-r), (3-s) (4-p)

65. Give correct option for the given true and false statements

- (i) Some insects, birds and mammals living in warm and dry climate have more darker black pigments than the races of same species living in cold and humid climate.  
(ii) Temperature variation is much lesser in aquatic habitat compared to terrestrial habitat  
(iii) In deep fresh water lakes, there is gradual increase in temperature from surface to the bottom  
(iv) In an aquatic habitat production increases with increasing depth. (T = True, F = False)

- (a) FFFF    (b) TFTF    (c) TTFT    (d) FTFT

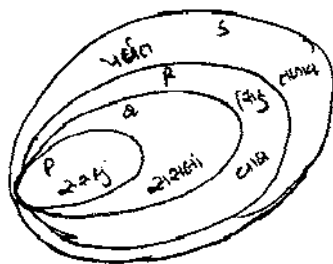
66. 'X' is an example of Mutualism and 'Y' is an example of succession then which is the correct relationship?

- (a) X = Hermit Crab      Y = Gastropod  
(b) X = Sea anemone      Y = mesosere Succession  
(c) X = Lichen      Y = Xerosere  
(d) X = Lichen      Y = Hydrosere

67. At 't' time, population density is 'N' and at t+1 time population density is  $N_{t+1}$ . If  $N_{t+1} - N_t$  then find out the correct option

- (a)  $B - D + I - E \neq 0$       (b)  $B - D + I - E = 0$   
(c)  $B + D - I + E = 0$       (d)  $B + D - I + E \neq 0$

68. Find out correct option P, Q, R, S, from the given diagram

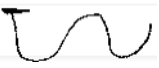


P

Q

R

S

- (a) population                      organism                      Ecosystem                      Biotic community  
 (b) Organism                      population                      Biotic community                      Ecosystem  
 (c) Ecosystem                      Biotic community                      population                      Species  
 (d) Biotic community                      Ecosystem                      Species                      population
69. Which of the following is not included as the climax community of general process of succession ?  
 (a) Sedge-meadow stage                      (b) phytoplanktones  
 (c) Forest                      (d) Grassland
70. How many sq. km. area of biosphere is occupied by marine habitat. ?  
 (a) 3,62,000,000                      (b) 36 crore 20 lacs  
 (c) 36,20 Million                      (d) all of these
71. What percentage of earth is occupied by marine habitat ?  
 (1) 71%      (2) 4 %      (3) 67%      (4) 29%  
 (a) 1,2                      (b) 2,3                      (c) 1,4                      (d) 1
72. What is the composition of soil with high waterlogging capacity ?  
 (a) Sandy soil                      (b) Black soil (loam soil)  
 (c) Rocky soil                      (d) Any one of these
73. Recently a village was badly affected by jaundice and Dengue, which of the following will decrease due to this ?  
 (a) No. of persons                      (b) area                      (c) Birth rate                      (d) Death rate
74. Which is related to the given statement ?  
 In the beginning of summer crow and koel lay eggs.  
 (a) As the light intensity decreases reproductive organs become active  
 (b) In some birds increase or decrease in intensity of light makes reproductive organs active or inactive respectively  
 (c) with increase in temperature, gonads become active  
 (d) None of these
75. Population of CBM Village year wise .....
- |      |             |
|------|-------------|
| 2000 | -----> 1000 |
| 2005 | -----> 400  |
| 2010 | -----> 600  |
| 2012 | -----> 800  |
- what will be the appropriate graph for this ?
- (a)                       (b) Irruptive  
 (c) 'S' shaped                      (d) J shaped
76. What is correct for the given statement ?

Statement X : Ascaris are permanent parasites

Statement Y : Ascaris lives inside the host's body

- (a) Both X&Y are correct      (c) X is wrong Y is true  
(b) Both x & Y are wrong      (d) X is correct & Y is true

77. Depending on the study of bird population in different areas of North Gujarat for last 10 years (2000 -2010) In which month population of bird is least ?

- (a) February      (b) September      (c) April      (d) October

78. Which is the correct option for the given table ? write 'T' if the given example is correct and 'F' for wrong example

Information	Example
Breed only once	Bamboo
Breeds many time	Birds like pigeon, Mammals
Small sized but many offsprings	Pray Birds
less in number but big size offsprings	Only deep marine shishes

- (a) TFTF (b) TTFF      (c) FFTT      (d) TFFF

79. Biological control as pest control in agriculture is an example of .....

- (a) Predation      (b) Competition      (c) Emigration      (d) diseases

80. The turtle of Galapagos island and the goats living there both were eating tender grass, state the relationship.

- (a) Interspecific competition      (b) Emigration  
(c) predation      (d) None of these

81. carrying capacity of a population is determined by (BHU 2001)

- (a) Birth rate      (b) Death rate  
(c) limiting resources      (d) Reproductive ability...

82. Biotic community means.... [CBSC, PMT - 2001]

- (a) Group of Birds  
(b) Group of species  
(c) Group of interrelated population  
(d) Groups of interrelated ecosystem

83. What is true for the members of same species [CBSC, PMT - 2002]

- (a) Capacity of inter breeding  
(b) shows same ecological niche  
(c) show different type of ecological niche  
(d) They have different Habitat

### ANSWER KEY

1 (a)	26 (c)	51(c)	76 (a)
2 (d)	27 (d)	52 (a)	77 (b)
3 (b)	28 (a)	53 (a)	78 (b)
4 (c)	29 (c)	54 (c)	79 (a)
5 (d)	30 (c)	55 (a)	80 (a)
6 (b)	31 (b)	56 (a)	81 (c)
7 (c)	32 (d)	57 (d)	82(c)
8 (d)	33 (c)	58 (d)	83 (a)
9 (b)	34 (b)	59 (d)	
10 (b)	35 (d)	60 (a)	
11 (c)	36 (a)	61 (b)	
12 (b)	37 (d)	62 (c)	
13 (c)	38 (d)	63 (c)	
14 (b)	39 (b)	64 (c)	
15 (a)	40 (a)	65 (d)	
16 (c)	41(a)	66 (c)	
17 (b)	42 (d)	67 (b)	
18 (a)	43 (a)	68 (b)	
19 (d)	44 (a)	69 (b)	
20 (d)	45 (c)	70 (d)	
21 (d)	46 (d)	71 (d)	
22 (c)	47 (d)	72 (b)	
23 (a)	48 (a)	73 (a)	
24 (a)	49 (b)	74 (c)	
25(c)	50 (b)	75 (b)	