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NEET ORGANISMS AND POPULATIONS — PYQS

Max. Marks: 364 **Questions:** 91

Section A (MCQ) — 91 questions

Q.1 Choose the correct statements regarding population interactions between two species.
Choose the correct answer from the options given below :
A. In both parasitism and commensalism, only one species benefits and the other species is harmed.
B. Both species benefit in mutualism.
C. Both species benefit in commensalism.
D. In parasitism, only one species benefits and the other species is harmed.
E. In amensalism, one species is harmed and the other is unaffected. [NEET (UG) 2026]
(1) A and B only (2) B and E only
(3) B, D and E only (4) A and D only

Scan or tap for the full solution

Q.2 Which of the following equations depicts Verhulst-Pearl logistic population growth ? [NEET (UG) 2026]
(1) $\frac{dN}{dt} = rN\left(\frac{K-N}{K}\right)$ (2) $\frac{dN}{dt} = rN\left(\frac{K}{K-N}\right)$
(3) $\frac{dN}{dt} = rN\left(\frac{K-N}{N}\right)$ (4) $\frac{dN}{dt} = rN\left(\frac{K+N}{K}\right)$

Scan or tap for the full solution

Q.3 Which one of the following is an appropriate example of sexual deceit? [NEET (UG) 2026]
(1) Sea anemone and clown fish
(2) *Ophrys* and bumblebee
(3) Female wasp and fig
(4) Cuckoo and crow

Solution

Q.4 Given below are two statements: one is labelled as **Assertion (A)** and the other is labelled as **Reason (R)**.
Assertion (A): Abingdon tortoise in Galapagos islands became extinct within a decade after goats were introduced.
Reason (R): Goats were more efficient at browsing than Abingdon tortoise.
In the light of the above statements, choose the most appropriate answer from the options given below: [RE-NEET (UG) 2026]
(1) A is not correct but R is correct
(2) Both A and R are correct and R is the correct explanation of A
(3) Both A and R are correct but R is not the correct explanation of A
(4) A is correct but R is not correct

Scan or tap for the full solution

Q.5 Consider a population of 10 million cells. Given the per-capita birth rate of 0.002 (per unit time) and the per-capita death rate of 0.002 (per unit time), the expected number of cells after 10 generations is _____. [RE-NEET (UG) 2026]
(1) 100 million (2) 1 million
(3) 5 million (4) 10 million

Scan or tap for the full solution

Q.6 Given below are two statements: one is labelled as **Assertion (A)** and the other is labelled as **Reason (R)**.
Assertion (A): The logistic growth model of populations is considered more realistic than the exponential growth model.
Reason (R): Resources are finite.
In the light of the above statements, choose the most appropriate answer from the options given below: [RE-NEET (UG) 2026]
(1) A is not correct but R is correct
(2) Both A and R are correct and R is the correct explanation of A
(3) Both A and R are correct but R is not the correct explanation of A
(4) A is correct but R is not correct

Scan or tap for the full solution

Q.7 Match **List-I** with **List-II**. [RE-NEET (UG) 2026]

List-I		List-II	
A.	Both species are harmed	I.	Predation
B.	One species is harmed and the other is benefited	II.	Mutualism
C.	Both species are benefited	III.	Competition

List-I		List-II	
D.	One is benefited while the other has no effect	IV.	Commensalism

(1) A-III, B-I, C-II, D-IV
(2) A-III, B-IV, C-II, D-I
(3) A-I, B-II, C-III, D-IV
(4) A-II, B-I, C-IV, D-III

Solution

Q.8 Epiphytes that are growing on a mango branch are an example of which of the following?

[NEET (UG) 2025]

(1) Predation (2) Amensalism
(3) Commensalism (4) Mutualism

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Q.9 Who is known as the father of Ecology in India?

[NEET (UG) 2025]

(1) Ram Udar (2) Birbal Sahni
(3) S.R. Kashyap (4) Ramdeo Misra

Scan or tap for the full solution

Q.10 Given below are two statements :
Statement-I: Fig fruit is a non-vegetarian fruit as it has enclosed fig wasps in it.
Statement-II: Fig wasp and fig tree exhibit mutual relationship as fig wasp completes its life cycle in fig fruit and fig fruit gets pollinated by fig wasp.

In the light of the above statements, choose the most appropriate answer from the options given below:

[NEET (UG) 2025]

(1) Statement-I is correct but statement II is incorrect
(2) Statement-I is incorrect but statement II is correct
(3) Both statement I and statement II are correct
(4) Both statement I and statement II are incorrect

Scan or tap for the full solution

Q.11 Which one of the following equations represents the Verhulst-Pearl Logistic Growth of population?

[NEET (UG) 2025]

(1) $\frac{dN}{dt} = rN\left(\frac{N-K}{N}\right)$ (2) $\frac{dN}{dt} = N\left(\frac{r-K}{K}\right)$
(3) $\frac{dN}{dt} = r\left(\frac{K-N}{K}\right)$ (4) $\frac{dN}{dt} = rN\left(\frac{K-N}{K}\right)$

Scan or tap for the full solution

Q.12 The equation of Verhulst-Pearl logistic growth is $\frac{dN}{dt} = rN\left[\frac{K-N}{K}\right]$. From this equation, K indicates:

[NEET (UG) 2024]

(1) Intrinsic rate of natural increase
(2) Biotic potential
(3) Carrying capacity
(4) Population density

Solution

Q.13 Given below are two statements:
Statement-I: Gause's competitive exclusion principle states that two closely related species competing for different resources cannot exist indefinitely.
Statement-II: According to Gause's principle, during competition, the inferior will be eliminated. This may be true if resources are limiting.

In the light of the above statements, choose the correct answer from the options given below :

[NEET (UG) 2024]

(1) Both Statement-I and Statement-II are true.
(2) Both Statement-I and Statement-II are false.
(3) Statement-I is true but Statement-II is false.
(4) Statement-I is false but Statement-II is true.

Scan or tap for the full solution

Q.14 When will the population density increase, under special conditions? When the number of :

[RE-NEET (UG) 2024]

(1) Deaths exceeds number of births and also number of emigrants equals number of immigrants.
(2) Births plus number of immigrants equals number of deaths plus number of emigrants.
(3) Births plus number of emigrants is more than the number of deaths plus number of immigrants.
(4) Births plus number of immigrants is more than the sum of number of deaths and number of emigrants.

Scan or tap for the full solution

Q.15 Match **List-I** with **List-II**:

List - I		List - II	
A.	Predator	I.	*Ophrys*
B.	Mutualism	II.	*Pisaster*
C.	Parasitism	III.	Female wasp and fig
D.	Sexual deceit	IV.	*Plasmodium*

Choose the correct answer from the options given below: [RE-NEET (UG) 2024]

(1) A-III, B-II, C-I, D-IV
(2) A-IV, B-I, C-II, D-III
(3) A-II, B-III, C-I, D-IV
(4) A-II, B-III, C-IV, D-I

Solution

Q.16 Match **List-I** with **List-II**.

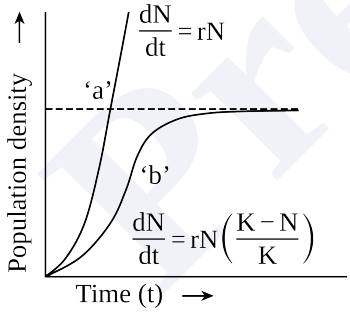
	List-I		List-II
A.	Migratory flamingoes and resident fish in South American lakes	I.	Interference competition
B.	Abingdon tortoise became extinct after introduction of goats in their habitat	II.	Competitive release
C.	*Chthamalus* expands its distributional range in the absence of *Balanus*	III.	Resource Partitioning
D.	Five closely related species of Warblers feeding in different locations on same tree	IV.	Interspecific competition

Choose the correct answer from the options given below: [RE-NEET (UG) 2024]

(1) A-I, B-IV, C-III, D-II
(2) A-IV, B-I, C-II, D-III
(3) A-III, B-I, C-II, D-IV
(4) A-II, B-IV, C-III, D-I

Solution

Q.17 What do 'a' and 'b' represent in the following population growth curve? [RE-NEET (UG) 2024]



(1) 'a' represents exponential growth when resources are not limiting the growth; and 'b' represents logistic growth when resources are limiting the growth.
(2) 'a' represents logistic growth when resources are not limiting the growth; 'b' represents exponential growth when resources are limiting the growth.
(3) 'a' represents carrying capacity and 'b' shows logistic growth when resources are limiting the growth.
(4) 'a' represents exponential growth when resources are not limiting the growth and 'b' shows carrying capacity.

Scan or tap for the full solution

Q.18 Given below are two statements:
Statement-I: Gause's 'Competitive Exclusion Principle' states that two closely related species competing for the same resources cannot co-exist indefinitely and competitively inferior one will be eliminated eventually.
Statement-II: In general, carnivores are more adversely affected by competition than herbivores.

In the light of the above statements, choose the correct answer from the options given below: [NEET (UG) 2023]

(1) Both Statement-I and Statement-II are false.
(2) Statement-I is correct but Statement-II is false.
(3) Statement-I is incorrect but Statement-II is true.
(4) Both Statement-I and Statement-II are true.

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Q.19 Match **List I** with **List II**:

	List I (Interaction)		List II (Species A and B)
A.	Mutualism	I.	+(A), 0(B)
B.	Commensalism	II.	−(A), 0(B)
C.	Amensalism	III.	+(A), −(B)
D.	Parasitism	IV.	+(A), +(B)

Choose the correct answer from the options given below: [NEET (UG) 2023]

(1) A-IV, B-I, C-II, D-III
(2) A-IV, B-III, C-I, D-II
(3) A-III, B-I, C-IV, D-II
(4) A-IV, B-II, C-I, D-III

Solution

Q.20 Match **List I** with **List II**.

	List I (Interacting species)		List II (Name of interaction)
A.	A Leopard and a Lion in a forest/grassland	I.	Competition
B.	A Cuckoo laying egg in a Crow's nest	II.	Brood parasitism
C.	Fungi and root of a higher plant in Mycorrhizae	III.	Mutualism
D.	A cattle egret and a Cattle in a field	IV.	Commensalism

Choose the correct answer from the options given below. [NEET (UG) 2023]

(1) A-I, B-II, C-IV, D-III

(2) A-III, B-IV, C-I, D-II

(3) A-II, B-III, C-I, D-IV

(4) A-I, B-II, C-III, D-IV

Solution

Q.21 Match **List I** with **List II**.

List I		List II	
A.	Logistic growth	I.	Unlimited resource availability condition
B.	Exponential growth	II.	Limited resource availability condition
C.	Expanding age pyramid	III.	The percent individuals of pre-reproductive age is largest followed by reproductive and post reproductive age groups
D.	Stable age pyramid	IV.	The percent individuals of pre-reproductive and reproductive age group are same

Choose the correct answer from the options given below: [NEET (UG) 2023]

(1) A-II, B-III, C-I, D-IV

(2) A-II, B-IV, C-I, D-III

(3) A-II, B-IV, C-III, D-I

(4) A-II, B-I, C-III, D-IV

Solution

Q.22 Which one of the following statements cannot be connected to Predation? [NEET (UG) 2022]

(1) It helps in maintaining species diversity in a community

(2) It might lead to extinction of a species

(3) Both the interacting species are negatively impacted

(4) It is necessitated by nature to maintain the ecological balance

Scan or tap for the full solution

Q.23 While explaining interspecific interaction of population, (+) sign is assigned for beneficial interaction, (−) sign is assigned for detrimental interaction and (0) for neutral interaction. Which of the following interactions can be assigned (+) for one species and (−) for another species involved in the interaction? [NEET (UG) 2022]

(1) Predation (2) Amensalism

(3) Commensalism (4) Competition

Scan or tap for the full solution

Q.24 If '8' *Drosophila* in a laboratory population of '80' died during a week, the death rate in the population is _____ individuals per *Drosophila* per week. [NEET (UG) 2022]

(1) 0.1 (2) 10 (3) 1.0 (4) zero

Scan or tap for the full solution

Q.25 Two butterfly species are competing for the same nectar of a flower in a garden. To survive and coexist together, they may avoid competition in the same garden by : [NEET (UG) 2022 (Phase 2)]

(1) Predating on each other

(2) Feeding at the same time

(3) Choosing different foraging patterns

(4) Increasing time spent on attacking each other

Scan or tap for the full solution

Q.26 In spite of interspecific competition in nature, which mechanism the competing species might have evolved for their survival? [NEET (UG) 2021]

(1) Predation (2) Resource partitioning

(3) Competitive release (4) Mutualism

Scan or tap for the full solution

Q.27 Amensalism can be represented as : [NEET (UG) 2021]

(1) Species A (+); Species B (0)

(2) Species A (−); Species B (0)

(3) Species A (+); Species B (+)

(4) Species A (−); Species B (−)

Solution

Q.28 In the exponential growth equation $N_t = N_0e^{rt}$, e represents [NEET (UG) 2021]

(1) The base of geometric logarithms

(2) The base of number logarithms

(3) The base of exponential logarithms

(4) The base of natural logarithms

Scan or tap for the full solution

Q.29 Match **List-I** with **List-II**

List-I		List-II	
a.	Allen's Rule	i.	Kangaroo rat
b.	Physiological adaptation	ii.	Desert lizard
c.	Behavioural adaptation	iii.	Marine fish at depth
d.	Biochemical adaptation	iv.	Polar seal

Choose the correct answer from the options given below. [NEET (UG) 2021]

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

Solution

Q.30 **Assertion (A):** A person goes to high altitude and experiences 'altitude sickness' with symptoms like breathing difficulty and heart palpitations.
Reason (R): Due to low atmospheric pressure at high altitude, the body does not get sufficient oxygen.

In the light of the above statements, choose the correct answer from the options given below [NEET (UG) 2021]

(1) (A) is false but (R) is true
(2) Both (A) and (R) are true and (R) is the correct explanation of (A)
(3) Both (A) and (R) are true but (R) is not the correct explanation of (A)
(4) (A) is true but (R) is false

Scan or tap for the full solution

Q.31 Secondary metabolites such as nicotine, strychnine and caffeine are produced by plants for their [NEET (UG) 2020]

(1) Nutritive value
(2) Growth response
(3) Effect on reproduction
(4) Defence action

Solution

Q.32 Which of the following is not an attribute of a population? [NEET (UG) 2020]

(1) Natality (2) Sex ratio
(3) Mortality (4) Species interaction

Scan or tap for the full solution

Q.33 Niche is [NEET 2018]

(1) all the biological factors in the organism's environment
(2) the physical space where an organism lives
(3) the range of temperature that the organism needs to live
(4) the functional role played by the organism where it lives

Scan or tap for the full solution

Q.34 Which one of the following population interactions is widely used in medical science for the production of antibiotics? [NEET 2018]

(1) Commensalism (2) Mutualism
(3) Parasitism (4) Amensalism

Scan or tap for the full solution

Q.35 Natality refers to [NEET 2018]

(1) death rate
(2) birth rate
(3) number of individuals leaving the habitat
(4) number of individuals entering a habitat

Scan or tap for the full solution

Q.36 In a growing population of a country, [NEET 2018]

(1) pre-reproductive individuals are more than the reproductive individuals
(2) reproductive individuals are less than the post-reproductive individuals
(3) reproductive and pre-reproductive individuals are equal in number
(4) pre-reproductive individuals are less than the reproductive individuals.

Scan or tap for the full solution

Q.37 Asymptote in a logistic growth curve is obtained when : [NEET 2017]

(1) K > N
(2) The value of 'r' approaches zero
(3) K < N
(4) K = N

Solution

Q.38 Plants which produce characteristic pneumatophores and show vivipary belong to : [NEET 2017]

(1) Halophytes (2) Psammophytes
(3) Hydrophytes (4) Mesophytes

Scan or tap for the full solution

Q.39 Mycorrhizae are the example of : [NEET 2017]

(1) Fungistasis (2) Antibiosis
(3) Mutualism (4) Amensalism

Scan or tap for the full solution

Q.40 It is much easier for a small animal to run uphill than for a large animal, because - [NEET 2016 (Phase 1)]

(1) The efficiency of muscles in large animals is less than in the small animals
(2) Smaller animals have a higher metabolic rate
(3) It is easier to carry a small body weight
(4) Small animals have a lower O_2 requirement

Scan or tap for the full solution

Q.41 When does the growth rate of a population following the logistic model equal zero?
The logistic model is given as $dN/dt = rN(1–N/K)$ [NEET 2016 (Phase 1)]

(1) When death rate is greater than birth rate.
(2) When N/K equals zero.
(3) When N/K is exactly one.
(4) When N nears the carrying capacity of the habitat.

Scan or tap for the full solution

Q.42 Gause's principle of competitive exclusion states that - [NEET 2016 (Phase 1)]
(1) Larger organisms exclude smaller ones through competition
(2) More abundant species will exclude the less abundant species through competition
(3) Competition for the same resources excludes species having different food preferences
(4) No two species can occupy the same niche indefinitely for the same limiting resources

Scan or tap for the full solution

Q.43 Which of the following is correct for r-selected species ? [NEET 2016 (Phase 2)]
(1) Small number of progeny with small size
(2) Small number of progeny with large size
(3) Large number of progeny with small size
(4) Large number of progeny with large size

Scan or tap for the full solution

Q.44 If '+' sign is assigned to beneficial interaction, '–' sign to detrimental and '0' sign to neutral interaction, then the population interaction represented by '+' '–' refers to [NEET 2016 (Phase 2)]
(1) parasitism (2) commensalism
(3) mutualism (4) amensalism

Scan or tap for the full solution

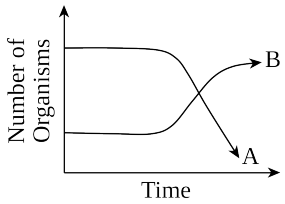
Q.45 The principle of competitive exclusion was stated by [NEET 2016 (Phase 2)]
(1) MacArthur (2) G. F. Gause
(3) Verhulst & Pearl (4) C. Darwin

Scan or tap for the full solution

Q.46 In which of the following interactions both partners are adversely affected? [AIPMT 2015]
(1) Competition (2) Predation
(3) Mutualism (4) Parasitism

Scan or tap for the full solution

Q.47 The following graph depicts changes in two populations (A and B) of herbivores in a grassy field. A possible reason for these changes is that: [AIPMT 2015 (Cancelled)]



(1) Population B competed more successfully for food than population A
(2) Population A consumed the members of population B
(3) Both plant populations in this habitat decreased
(4) Population A produced more offspring than population B

Scan or tap for the full solution

Q.48 Most animals are tree dwellers in a: [AIPMT 2015 (Cancelled)]
(1) temperate deciduous forest
(2) tropical rain forest
(3) coniferous forest
(4) thorn woodland

Solution

Q.49 Just as a person moving from Delhi to Shimla to escape the heat for the duration of hot summer, thousands of migratory birds from Siberia and other extremely cold northern regions move to: [AIPMT 2014]
(1) Keoladeo National Park
(2) Meghalaya
(3) Corbett National Park
(4) Western Ghat

Solution

Q.50 A sedentary sea anemone gets attached to the shell lining of hermit crab. The association is : [NEET 2013]
(1) Commensalism (2) Amensalism
(3) Ectoparasitism (4) Symbiosis

Scan or tap for the full solution

Q.51 A biologist studied the population of rats in a barn. He found that the average natality was 250, average mortality 240, immigration 20 and emigration 30. The net increase in population is : [NEET 2013]
(1) 15 (2) 05 (3) 10 (4) zero

Scan or tap for the full solution

Q.52 The age pyramid with broad base indicates : [NEET 2013 (Karnataka)]
(1) high percentage of young individuals

(2) high percentage of old individuals
(3) a stable population
(4) low percentage of young individuals

Scan or tap for the full solution

Q.53 Which one of the following is not a parasitic adaptation ? [NEET 2013 (Karnataka)]
(1) Loss of digestive organs
(2) Loss of unnecessary sense organs
(3) Development of adhesive organs
(4) Loss of reproductive capacity

Scan or tap for the full solution

Q.54 Benthic organisms are affected most by : [NEET 2013 (Karnataka)]
(1) Surface turbulence of water
(2) Water-holding capacity of soil
(3) Light reaching the forest floor
(4) Sediment characteristics of aquatic ecosystems

Scan or tap for the full solution

Q.55 *Cuscuta* is an example of : [AIPMT 2012 (Mains)]
(1) Ectoparasitism (2) Predation
(3) Endoparasitism (4) Brood parasitism

Scan or tap for the full solution

Q.56 People who have migrated from the plains to an area adjoining Rohtang Pass about six months back [AIPMT 2012 (Prelims)]
(1) have more RBCs and their haemoglobin has a lower binding affinity to O_2
(2) are not physically fit to play games like football
(3) suffer from altitude sickness with symptoms like nausea, fatigue, etc.
(4) have the usual RBC count but their haemoglobin has very high binding affinity to O_2.

Scan or tap for the full solution

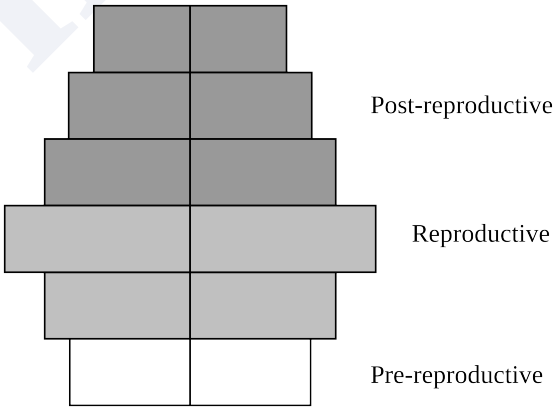
Q.57 The logistic population growth is expressed by the equation: [AIPMT 2011 (Mains)]
(1) $dt/dN = Nr\left(\frac{K-N}{K}\right)$
(2) $dN/dt = rN\left(\frac{K-N}{K}\right)$
(3) $dN/dt = rN\left(\frac{N-K}{N}\right)$
(4) $dN/dt = rN$

Scan or tap for the full solution

Q.58 Consider the following statements (A)-(D) each with one or two blanks :
(A) Bears go into _____ (1) _____ during winter to _____ (2) _____ cold weather.
(B) A conical age pyramid with a broad base represents _____ (3) _____ human population.
(C) A wasp pollinating a fig flower is an example of _____ (4) _____ .
(D) An area with high levels of species richness is known as _____ (5) _____ .
Which of the following options gives the correct fill ups for the respective blank numbers from (1) to (5) in the statements ? [AIPMT 2011 (Mains)]
(1) (1) - aestivation, (2) - escape, (3) - stable, (4) - mutualism
(2) (3) - expanding, (4) - commensalism, (5) - biodiversity park
(3) (1) - hibernation, (2) - escape, (3) - expanding, (5) - hot spot
(4) (3) - stable, (4) - commensalism, (5) - marsh

Scan or tap for the full solution

Q.59 What type of human population is represented by the following age pyramid? [AIPMT 2011 (Prelims)]



(1) Declining population
(2) Vanishing population
(3) Expanding population
(4) Stable population

Solution

Q.60 Large woody vines are more commonly found in [AIPMT 2011 (Prelims)]
(1) Mangroves (2) Tropical rainforests
(3) Alpine forests (4) Temperate forests

Scan or tap for the full solution

Q.61 Consider the following four conditions (a – d) and select the correct pair of them as adaptation to environment in desert lizards.
The conditions : [AIPMT 2011 (Prelims)]
(a) burrowing in soil to escape high temperature
(b) losing heat rapidly from the body during high temperature

(c) bask in sun when temperature is low

(d) insulating body due to thick fatty dermis

(1) (c), (d) (2) (b), (d) (3) (a), (c) (4) (a), (b)

Scan or tap for the full solution

Q.62 Which one of the following is categorised as a parasite in true sense? [AIPMT 2011 (Prelims)]

(1) The female *Anopheles* bites and sucks blood from humans

(2) Head louse living on the human scalp as well as laying eggs on human hair

(3) The cuckoo (koel) lays its eggs in crow's nest

(4) Human foetus developing inside the uterus draws nourishment from the mother

Scan or tap for the full solution

Q.63 Which one of the following is most appropriately defined? [AIPMT 2010 (Mains)]

(1) Parasite is an organism which always lives inside the body of other organism and may kill it.

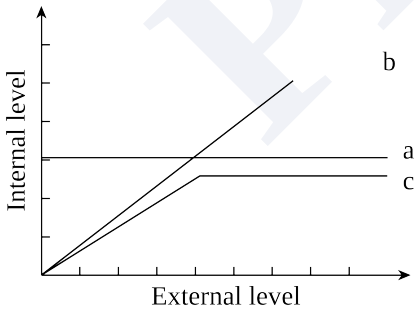
(2) Host is an organism which provides food to another organism.

(3) Amensalism is a relationship in which one species is benefited whereas the other is unaffected

(4) Predator is an organism that catches and kills other organism for food.

Scan or tap for the full solution

Q.64 The figure given below is a diagrammatic representation of response of organisms to abiotic factors. What do a, b and c represent respectively – [AIPMT 2010 (Prelims)]



(1) (a) ⟶ partial regulator, (b) ⟶ regulator, (c) ⟶ conformer

(2) (a) ⟶ conformer, (b) ⟶ regulator, (c) ⟶ partial regulator

(3) (a) ⟶ regulator, (b) ⟶ conformer, (c) ⟶ partial regulator

(4) (a) ⟶ regulator, (b) ⟶ partial regulator, (c) ⟶ conformer

Scan or tap for the full solution

Q.65 Study the four statements (a–d) given below and select the two correct ones out of them –

(a) A lion eating a deer and a sparrow feeding on grain are ecologically similar in being consumers

(b) Predator starfish *Pisaster* helps in maintaining species diversity of some invertebrates

(c) Predators ultimately lead to the extinction of prey species

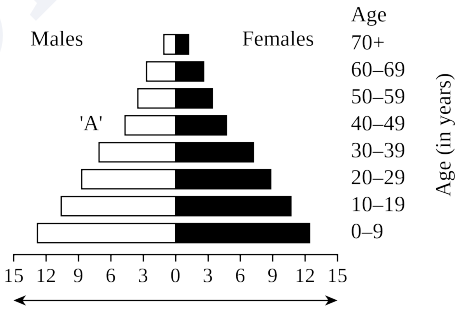
(d) Production of chemicals such as nicotine, strychnine by the plants are metabolic disorders

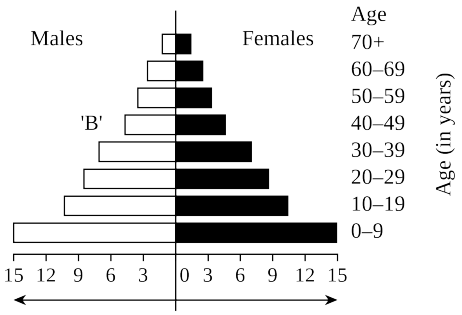
The two correct statements are – [AIPMT 2010 (Prelims)]

(1) b and c (2) a and d (3) c and d (4) a and b

Scan or tap for the full solution

Q.66 A country with a high rate of population growth took measures to reduce it. The figure below shows age-sex pyramids of populations A and B twenty years apart. Select the correct interpretation about them : [AIPMT 2009]





(1) "A" is more recent and shows slight reduction in the growth rate

(2) "B" is more recent showing that population is very young

(3) "A" is the earlier pyramid and no change has occurred in the growth rate

(4) "B" is the earlier pyramid and shows stabilized growth rate

Scan or tap for the full solution

Q.67 Reduction in vascular tissue, mechanical tissue and cuticle is characteristic of : [AIPMT 2009]

(1) Xerophytes (2) Epiphytes
(3) Hydrophytes (4) Mesophytes

Scan or tap for the full solution

Q.68 Consider the following four statements (i)–(iv) about certain desert animals such as kangaroo-rat.

(i) They have dark colour and high rate of reproduction and excrete solid urine
(ii) They do not drink water, breathe at a slow rate to conserve water and have their body covered with thick hairs
(iii) They feed on dry seeds and do not require drinking water
(iv) They excrete very concentrated urine and do not use water to regulate body temperature

Out of these four, which two are correct? [AIPMT 2008]

(1) (i) and (ii) (2) (ii) and (iii)
(3) (iii) and (i) (4) (iii) and (iv)

Scan or tap for the full solution

Q.69 *Quercus* species are the dominant component in: [AIPMT 2008]

(1) Temperate deciduous forests
(2) Alpine forests
(3) Scrub forests
(4) Tropical rain forests

Solution

Q.70 Geometric representation of age structure is a characteristic of :- [AIPMT 2007]

(1) Biotic community (2) Landscape
(3) Ecosystem (4) Population

Scan or tap for the full solution

Q.71 The population of an insect species shows an explosive increase in numbers during rainy season followed by its disappearance at the end of the season. What does this show ? [AIPMT 2007]

(1) The food plants mature and die at the end of the rainy season
(2) The population of its predators increases enormously
(3) Its population growth curve is of J-type
(4) S-shaped or sigmoid growth of this insect

Scan or tap for the full solution

Q.72 A high density of elephant population in an area can result in :- [AIPMT 2007]

(1) Mutualism
(2) Interspecific competition
(3) Predation on one another
(4) Intraspecific competition

Solution

Q.73 Annual migration does not occur in the case of [AIPMT 2006]

(1) Arctic tern (2) salmon
(3) Siberian crane (4) salamander

Scan or tap for the full solution

Q.74 The formula for exponential population growth is- [AIPMT 2006]

(1) dN/dt = rN (2) dt/dN = rN
(3) rN/dN = dt (4) dN/rN = dt

Scan or tap for the full solution

Q.75 Praying mantis is a good example of- [AIPMT 2006]

(1) Warning colouration
(2) Camouflage
(3) Mullerian mimicry
(4) Social insects

Solution

Q.76 Niche overlap indicates- [AIPMT 2006]

(1) Sharing of one or more resources between the two species
(2) Mutualism between two species
(3) Active cooperation between two species
(4) Two different parasites on the same host

Scan or tap for the full solution

Q.77 More than 70% of world's fresh water is contained in – [AIPMT 2005]

(1) Polar ice
(2) Greenland
(3) Antarctica
(4) Glaciers and Mountains

Solution

Q.78 At which latitude, heat gain through insolation approximately equals heat loss through terrestrial radiation - [AIPMT 2005]

(1) 40° North and South (2) $42\frac{1}{2}°$ North and South
(3) 66° North and South (4) $22\frac{1}{2}°$ North and South

Scan or tap for the full solution

Q.79 Animals have the innate ability to escape from predation. Examples for the same are given below. Select the incorrect example [AIPMT 2005]

(1) Poison fangs in snakes
(2) Enlargement of body size by swallowing air in puffer fish
(3) Colour change in chameleon
(4) Melanism in moths

Scan or tap for the full solution

Q.80 Which one of the following pairs is mismatched ? [AIPMT 2005]

(1) Tundra - permafrost
(2) Savanna - acacia trees
(3) Prairie - epiphytes
(4) Coniferous forest - evergreen trees

Scan or tap for the full solution

Q.81 Certain characteristic demographic features of developing countries are - [AIPMT 2004]

(1) High fertility, low or rapidly falling mortality rate, rapid population growth and a very young age distribution
(2) High mortality, high density, uneven population growth and a very old age distribution
(3) High fertility, high density, rapidly rising mortality rate and very young age distribution
(4) High infant mortality, low fertility, uneven population growth and a very young age distribution

Scan or tap for the full solution

Q.82 In which of the following pairs is the specific characteristic of a soil not correctly matched ? [AIPMT 2004]

(1) Chernozems – Richest soil in the world
(2) Laterite – Contains aluminium compound
(3) Terra rossa – Most suitable for roses
(4) Black soil – Rich in calcium carbonate

Scan or tap for the full solution

Q.83 In which one of the following habitats does the diurnal temperature of soil surface vary most ? [AIPMT 2004]

(1) Grassland (2) Desert
(3) Shrub land (4) Forest

Solution

Q.84 Two opposite forces operate in the growth and development of every population. One of them relates to the ability to reproduce at a given rate. The force opposing it is called: [AIPMT 2003]

(1) Biotic potential
(2) Environmental resistance
(3) Morbidity
(4) Fecundity

Solution

Q.85 Mycorrhiza is an example of :- [AIPMT 2003]

(1) Ectoparasitism (2) Decomposers
(3) Endoparasitism (4) Symbiotic relationship

Scan or tap for the full solution

Q.86 The growth curve of bacterial population in lab is plotted against time. What will be the shape of graph? [AIPMT 2002]

(1) Sigmoid
(2) Hyperbolic
(3) Ascending straight line
(4) Descending straight line

Solution

Q.87 Choose the correct sequence of stages of growth curve for bacteria. [AIPMT 2002]

(1) Lag, log, stationary, decline phase
(2) Lag, log, decline, stationary phase
(3) Stationary, lag, log, decline phase
(4) Decline, lag, log phase, stationary

Scan or tap for the full solution

Q.88 In a population, unrestricted reproductive capacity is called as - [AIPMT 2002]

(1) Biotic potential (2) Birth rate
(3) Carrying capacity (4) Fertility

Scan or tap for the full solution

Q.89 Cause of mimicry is - [AIPMT 2002]

(1) offence (2) concealment
(3) defence (4) both (2) and (3)

Scan or tap for the full solution

Q.90 Which type of association is found in between entomophilous flower and pollinating agent ? [AIPMT 2002]

(1) Cooperation (2) Co-evolution
(3) Mutualism (4) Commensalism

Scan or tap for the full solution

Q.91 Two different species can not live for long duration in the same niche or habitat. This law is : - [AIPMT 2002]

(1) Dollo's rule (2) Weismann's theory
(3) Allen's law (4) Gause's hypothesis

Scan or tap for the full solution

ANSWER KEY

Ques.	1	2	3	4	5	6	7	8	9	10	11
Ans.	**3**	**1**	**2**	**2**	**4**	**2**	**1**	**3**	**4**	**4**	**4**
Ques.	12	13	14	15	16	17	18	19	20	21	22
Ans.	**3**	**4**	**4**	**4**	**2**	**1**	**2**	**1**	**4**	**4**	**3**
Ques.	23	24	25	26	27	28	29	30	31	32	33
Ans.	**1**	**1**	**3**	**2**	**2**	**4**	**4**	**2**	**4**	**4**	**4**
Ques.	34	35	36	37	38	39	40	41	42	43	44
Ans.	**4**	**2**	**1**	**4**	**1**	**3**	**2**	**3**	**4**	**3**	**1**
Ques.	45	46	47	48	49	50	51	52	53	54	55
Ans.	**2**	**1**	**1**	**2**	**1**	**4**	**4**	**1**	**4**	**4**	**1**
Ques.	56	57	58	59	60	61	62	63	64	65	66
Ans.	**1**	**2**	**3**	**1**	**2**	**3**	**2**	**4**	**3**	**4**	**1**
Ques.	67	68	69	70	71	72	73	74	75	76	77
Ans.	**3**	**4**	**1**	**4**	**3**	**4**	**4**	**1**	**2**	**1**	**1**
Ques.	78	79	80	81	82	83	84	85	86	87	88
Ans.	**1**	**1**	**3**	**1**	**4**	**2**	**2**	**4**	**2**	**1**	**1**
Ques.	89	90	91								
Ans.	**4**	**2**	**4**								

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