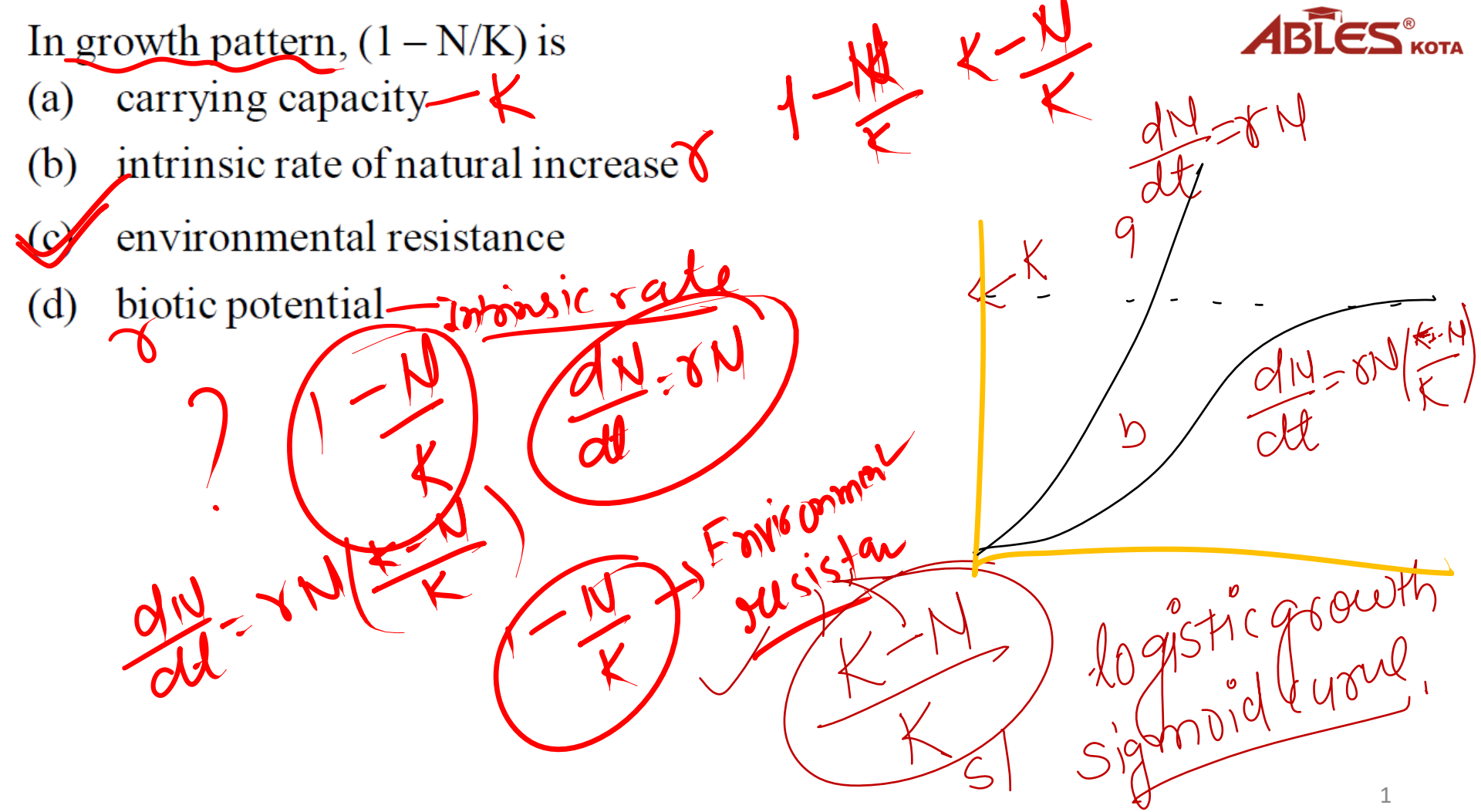
In growth pattern, (1 – N/K) is

(a) carrying capacity

(b) intrinsic rate of natural increase

(c) environmental resistance

(d) biotic potential



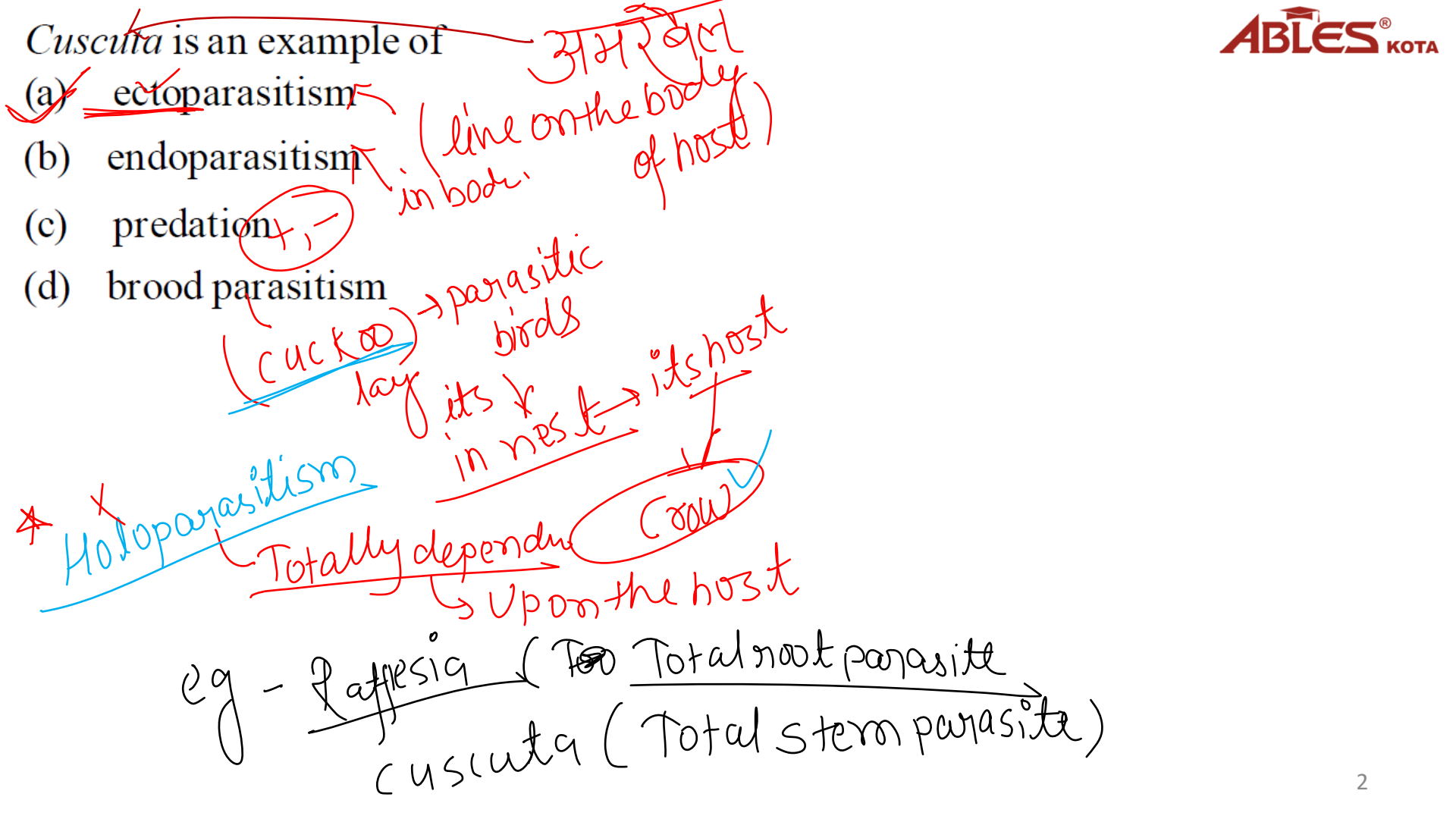
Cuscuta is an example of

(a) ectoparasitism

(b) endoparasitism

(c) predation

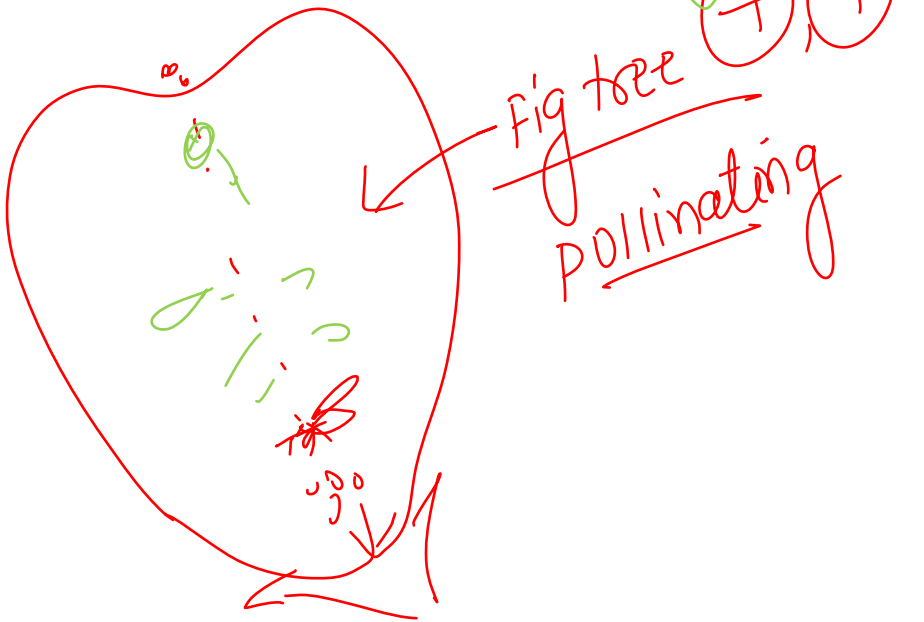
(d) brood parasitism



A wasp pollinating a fig flower is an example of

(a) commensalism (b) amensalism

(c) parasitism (d) mutualism



Match column-I with column-II and choose the correct answer.

	Column-I		Column-II
A.	Pacific Salmon fish	I.	Produces a small number of large sized offspring
B.	Mammals	II.	Produces a large number of small sized offspring
C.	Oysters	III.	Breed only once in their lifetime
D.	Birds	IV.	Breed many times during their lifetime

(a) A – III, B – IV, C – II, D – I

(b) A – I, B – IV, C – II, D – III

(c) A – IV, B – II, C – I, D – III

(d) A – II, B – IV, C – III, D – I

Match the following

	Population		Example
A.	Predation	I.	*Cuscuta* and hedge plants
B.	Commensalism	II.	*Balanus* and *Chathamalus*
C.	Parasitism	III.	Cactus and moth
D.	Competition	IV.	Orchid and mango

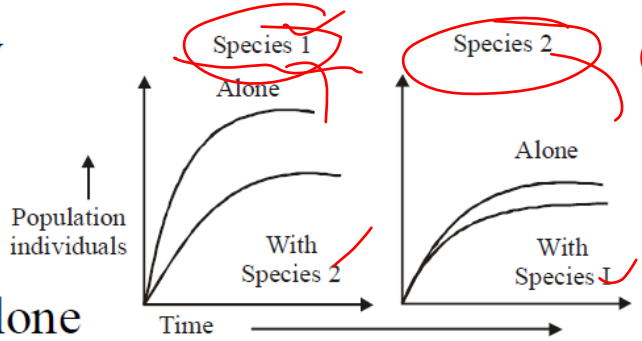
(a) A – III, B – IV, C – I, D – II

(b) A – IV, B – III, C – II, D – I

(c) A – I, B – III, C – II, D – IV

(d) A – III, B – IV, C – II, D – I

In laboratory experiments, two species of the protist *Paramecium* were grown alone and in the presence of the other species. The following graphs show growth of species 1 (left) and species 2 (right), both along and when in mixed culture.



Interpretation of these graphs shows that

(a) competitive exclusion occurred in these experiments.

(b) both species are affected by interspecific competition but species 1 is less affected.

(c) both species are affected by interspecific competition but species 2 is less affected.

(d) both species are affected equally by interspecific competition.

Consider the following statements (A) - (D) each with one or two blanks.

A. Lichens represent an intimate ____(i)____ relationship between a fungus and ____(ii)____

B. The ____(iii)____ are associations between fungi and the roots of higher plants.

C. Plants need the help of ____(iv)____ for pollinating their flowers and dispersing their seeds.

D. The ____(v)____ pollinates the fig inflorescence while searching for suitable egg - laying sites.

Which one of the following options, gives the correct fillups for the respective blank numbers from (i) - (v) in the statements?

(a) (i) Parasitic; (ii) - Cyanobacteria; (iii) - *Mycorrhizae*; (iv) - Wind; (v) - Bee

(b) (i) Mutualistic; (ii) - Cyanobacteria; (iii) - *Mycorrhizae*; (iv) - Animals; (v) Wasp

(c) (i) Parasitic; (ii) - Cyanobacteria; (iii) - *Mycorrhizae*; (iv) - Insect; (v) Bumblebees

(d) (i) Mutualistic; (ii) - Cyanobacteria; (iii) - Lichen; (iv) - Wind; (v) Wasp

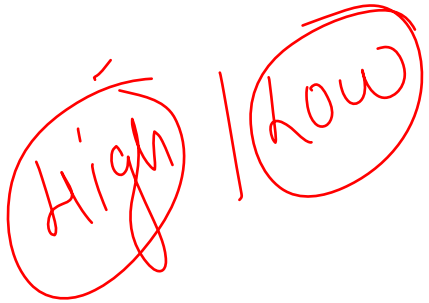
The age of pyramid with narrow base indicates

(a) high number of young individuals.

(b) low number of young individuals.

(c) high number of old individuals.

(d) low number of old individuals.



Read the following statements regarding adaptation and choose the correct option.

(i) Many xerophytic plants have a thick cuticle on leaf epidermis and sunken stomata to prevent transpiration.

(ii) Some xerophytic plants have special photosynthetic pathway (CAM) that enables their stomata to close during day.

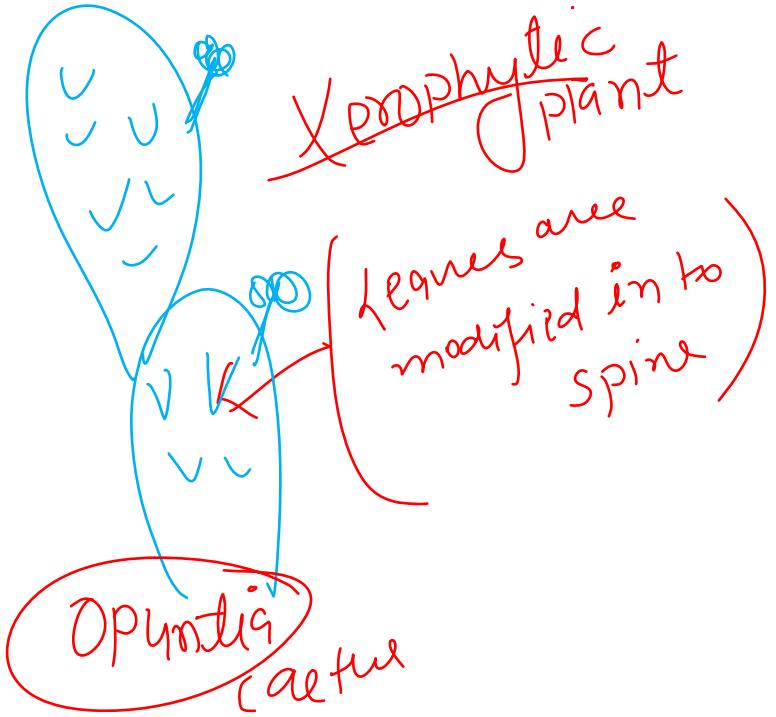
(iii) *Opuntias* has no leaves, they are reduced to spines.

(iv) All adaptation are genetically fixed in all organisms.

(v) In *Opuntia*, the pathway of photosynthesis is through C_3 cycle.

(a) (i), (ii) and (iii) (b) Only (ii)

(c) (iv) and (v) (d) All of these



Which of the following are the characteristics of expanding population ?

(i) Pyramid - shaped age structure.

(ii) An urn - shaped age structure.

(iii) Pre-reproductive and reproductive age groups become more or less equal in size.

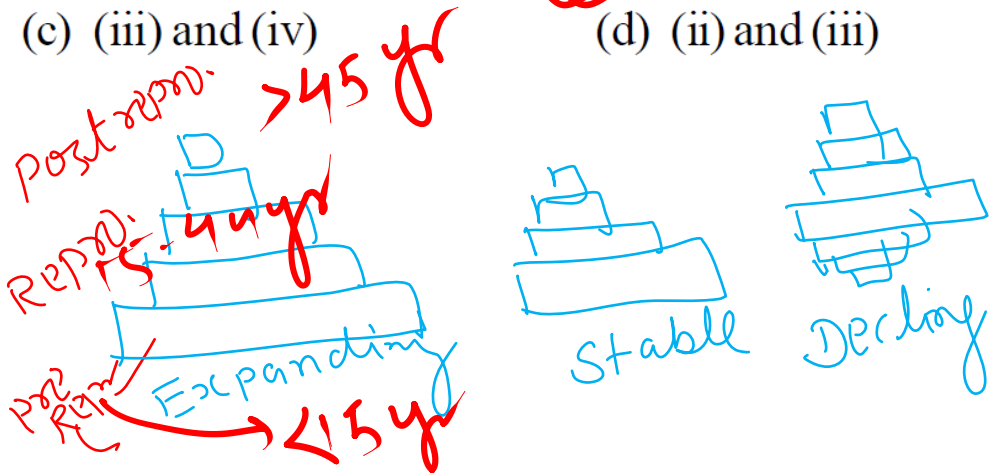
(iv) Rapidly growing population with high birth rate.

(a) (i) and (iii)

(b) (i) and (iv)

(c) (iii) and (iv)

(d) (ii) and (iii)



1	2	3	4	5	6	7	8	9	10
C	A	D	A	A	C	B	B	A	B