



DF-3046

Second Year (Envi. Sci.) (Sem. III) Examination

March / April – 2016

Population Ecology

Time : 2 Hours]

[Total Marks : 50

સૂચના / Instructions :

(1)

નીચે દર્શાવેલ નિશાનીયાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
SECOND YEAR (ENVI. SCI.) (SEM. III)	<input type="text"/>
Name of the Subject :	<input type="text"/>
POPULATION ECOLOGY	<input type="text"/>
Subject Code No. : <input type="text"/> 3 <input type="text"/> 0 <input type="text"/> 4 <input type="text"/> 6	<input type="text"/>
Section No. (1, 2,.....): <input type="text"/> Nil	
	Student's Signature

- (૨) પ્રશ્ન પત્રમાં કુલ ૫૦ પ્રશ્નો છે, બધા જ ફરજિયાત છે. દરેક પ્રશ્નનો (૧) એક ગુણ છે.
- (2) There are 50 questions, each question carries one (1) mark and all are compulsory.
- (૩) દરેક પ્રશ્નનો કાળજીપૂર્વક અભ્યાસ કરી સાચો વિકલ્પ પસંદ કરો.
- (3) Read the question carefully before selecting the correct option.
- (૪) બધા જ પ્રશ્નો ફરજિયાત છે.
- (4) All questions are compulsory.

O.M.R. Sheet ભરવા અંગેની અગત્યની સૂચનાઓ આપેલ
O.M.R. Sheetની પાછળ છાપેલ છે.
***Important instructions to fillup O.M.R. Sheet
are given back side of provided O.M.R. Sheet.***

- 1 Specific density is per unit of _____
 - (A) Total space
 - (B) Habitat
 - (C) Total number
 - (D) Life table

- 2 Decreasing the population density depends on
 - (A) mortality and emigration
 - (B) size and movement
 - (C) habitat and ecological aspects
 - (D) natality and immigration

- 3 Growth rates interplay with factors
 - (A) natality, immigration, mortality, emigration
 - (B) ecosystem, habitat, population, space
 - (C) ecosystem, natality, life space, mortality
 - (D) size, movement, age, immigration

- 4 Moderate proportion of young to old is represented in age structure
 - (A) Broad based
 - (B) Top of pyramid
 - (C) Un-shaped
 - (D) Bell shaped

- 5 Log percentage of young individuals presented in age structure
 - (A) Broad based
 - (B) Top of pyramid
 - (C) Un-shaped
 - (D) Bell shaped

- 6 Value of r refers to _____ in population dynamic studies
 - (A) carrying capacity
 - (B) intrinsic rate of natural increase
 - (C) rate of growth
 - (D) rate of mortality and natality

- 7 Logistic equation describes
 - (A) population growth with an upper limit
 - (B) population growth with a lower limit
 - (C) population description with range
 - (D) population detail with all limits

- 8 Plant population structure follows the levels
(A) off springs and winter
(B) seed and stem
(C) gamete and ramet
(D) models and modular
- 9 Function of seed bank
(A) bank which store seeds sequence
(B) storage of seeds in germination stage
(C) bank which stores seed documents
(D) storage of seeds in dormant state
- 10 Polycarpic refers as
(A) polymerase reaction
(B) repeated several time
(C) multiple seeds at a time
(D) never happened
- 11 Density independent factor that affects population
(A) competition & predation
(B) floods & fires
(C) Both of these
(D) None of these
- 12 Voda's $-3/2$ law is used to calculate
(A) Population ecosystem
(B) Population dynamics
(C) Growth pattern
(D) Mortality rate
- 13 Relationship between plant density & its biomass
(A) intraspecific complex
(B) self thinning curve
(C) density curve map
(D) key factor structure
- 14 Local diversity of species diversity refer as
(A) no. of communities in locally
(B) whole population in part of continents
(C) nations different communities exist at different latitude
(D) All of these

- 15 Stratification strata depends on
(A) heat & waves
(B) light & relative humidity
(C) rains & flood
(D) atmosphere & spectra
- 16 The zone of a lake lying below the compensation depth known as
(A) profundal zone
(B) benthetic zone
(C) littoral zone
(D) limnetic zone
- 17 Living in open water zone, a depth where effective light may penetrate
(A) limnetic zone
(B) benthetic zone
(C) littoral zone
(D) profundal zone
- 18 Orderly changed colonization lead to develop vegetation is _____.
(A) climax community
(B) competition
(C) succession
(D) ecesis
- 19 Stabilized habitat and community is also refer as
(A) climax community
(B) competition
(C) succession
(D) ecesis
- 20 Frequency can be recorded by physiological sampling techniques
(A) density, basal & cover area
(B) abundance, dominance and density
(C) quadrature, transect and point
(D) rare, very rare and common

- 21 Qualitative characters measures by
 (A) density, basal & cover area
 (B) abundance, dominance and density
 (C) physiognomy, phenology, stratification
 (D) quadrat, transect and point
- 22 Plant's data from different species arranged in different vertical layers come under characteristics
 (A) physiognomy (B) phenology
 (C) stratification (D) abundance
- 23 Proximity of individuals in populations known as
 (A) sociability (B) phenology
 (C) stratification (D) abundance,
- 24 Synthetic characteristics are determined by
 (A) density, basal & cover area
 (B) presence, constancy, dominance and fidelity
 (C) physiognomy, phenology, stratification
 (D) quadrat, transect and point
- 25 Which are the categories methods to study community?
 (A) density, basal and cover area
 (B) abundance, dominance and density
 (C) floristic, physiognomic and phytosociological
 (D) quadrat, transect and point
- 26 Which are the parts of Raunkiaer's method?
 (A) life-forms and biological spectrum
 (B) association index and diversity index
 (C) fidelity and density
 (D) frequency and abundance
- 27 Which are the sampling units of phytosociological methods of community?
 (A) area, line and point
 (B) quadrat, transect and point
 (C) density, basal and cover area
 (D) density, line and quadrat
- 28 Environment is always changing over a period of time due to
 (A) variations in climatic, physiographic factor, species activity
 (B) soil composition, soil aec & cec ratio
 (C) soil texture and porosity
 (D) trends, ecesis and autogenic factors
- 29 The occurrence of relatively definite sequence of communities over a period of time in the same area is known as
 (A) society (B) succession
 (C) species (D) association
- 30 Which of the following are considered as causes of succession?
 (A) primary, secondary and final causes
 (B) first, second and third causes
 (C) initiating, ecesis and stabilizing causes
 (D) endo,ecto and super causes

- 31 The first group of organisms establishing the succession is called as
 (A) society (B) pioneer
 (C) species (D) association.
- 32 The succession in which self modification causing replacement of new communities is
 (A) primary (B) secondary
 (C) autogenic (D) allogenic
- 33 Which type of ecological succession allows replacement of communities by external condition?
 (A) primary (B) secondary
 (C) autogenic (D) allogenic
- 34 Which are the factors affecting to the nudation?
 (A) air, water & soil
 (B) topographic, climatic & biotic
 (C) autogenic, allogenic, heterogenic
 (D) All of these
- 35 The successful establishment of species in a bare area completed by:
 (A) migration (B) ecesis
 (C) aggregation (D) All of these
- 36 The sequence of communities that replaces one another in given are is called
 (A) migrative communities
 (B) climax communities
 (C) competitive communities
 (D) seral communities
- 37 The amphibious stage is also known as
 (A) phytoplankton
 (B) rooted submerged
 (C) rooted floating
 (D) reed swamp stage
- 38 Microsere succession is a part of which succession process?
 (A) heterotrophic
 (B) autotrophic
 (C) autogenic
 (D) allogenic
- 39 The undesirable outcome of research by statistical study is known as
 (A) inferences
 (B) acceptance
 (C) psudoreplication
 (D) confounding
- 40 Who state the words "to do science is to search for patterns, not simply to accumulate facts"?
 (A) Snee (B) Macarther
 (C) Odom (D) Darwin

- 41 Conclusion based on mathematical summaries of the data is known as
- (A) random variables
 - (B) acceptance of theory
 - (C) normality
 - (D) statistical inferences
- 42 Which conclusion is known as inductive conclusion of research?
- (A) Generalized conclusion
 - (B) reasoning conclusion from specific
 - (C) expected conclusion
 - (D) statistical as well experimental both
- 43 Who did give the concept of "statistical thinking" for ecologist?
- (A) Snee
 - (B) Arther S. E.
 - (C) Odom
 - (D) Darwin
- 44 How sample is defined in statistics?
- (A) measurable unit
 - (B) scientific gather data
 - (C) a representative-small number of individual
 - (D) All of these
- 45 The errors observed during deriving hypothesis
- (A) type 1, 2, 3
 - (B) type a, b, c
 - (C) type big, medium, small
 - (D) all types are consider

- 46 A hypothesis that a sample of individuals drawn from a population in nature will come from a population with known characteristic or parameter is known as
- (A) Full hypothesis
 - (B) One hypothesis
 - (C) Null hypothesis
 - (D) Research hypothesis
- 47 During which stage, xerophytic mosses develop?
- (A) Crustose
 - (B) Foliose
 - (C) Moss
 - (D) Shrub
- 48 Biological spectrum represents as
- (A) percentage of total population of community
 - (B) percentage of total species in the community
 - (C) percentage of total species of population
 - (D) percentage of total community in population
- 49 Which scientist gave theory of maturity in succession?
- (A) P. K. Khanna
 - (B) P. D. Sharma
 - (C) Odum
 - (D) Margalef
- 50 How many theories are there for studying climax concept in succession?
- (A) 2
 - (B) 3
 - (C) 4
 - (D) 5