

**D****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"/>
<b>SECOND YEAR (ENVI. SCI.) (SEM. III)</b>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<b>POPULATION ECOLOGY</b>	<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,.....): <b>Nil</b>	
	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. Sheet-ની પાછળ છાપેલ છે.***  
***Important instructions to fillup O.M.R. Sheet are given back side of provided O.M.R. Sheet.***

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

- 6 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) One hypothesis
  - (B) Null hypothesis
  - (C) Research hypothesis
  - (D) Full hypothesis
- 7 During which stage, xerophytic mosses develop?
- (A) Foliose
  - (B) Moss
  - (C) Shrub
  - (D) Crustose
- 8 Biological spectrum represents as
- (A) percentage of total species in the community
  - (B) percentage of total species of population
  - (C) percentage of total community in population
  - (D) percentage of total population of community
- 9 Which scientist gave theory of maturity in succession?
- (A) P. D. Sharma
  - (B) Odum
  - (C) Margalef
  - (D) P. K. Khanna
- 10 How many theories are there for studying climax concept in succession?
- (A) 3
  - (B) 4
  - (C) 5
  - (D) 2

- 11 Specific density is per unit of \_\_\_\_\_  
(A) Habitat  
(B) Total number  
(C) Life table  
(D) Total space
- 12 Decreasing the population density depends on  
(A) size and movement  
(B) habitat and ecological aspects  
(C) natality and immigration  
(D) mortality and emigration
- 13 Growth rates interplay with factors  
(A) ecosystem, habitat, population, space  
(B) ecosystem, natality, life space, mortality  
(C) size, movement, age, immigration  
(D) natality, immigration, mortality, emigration
- 14 Moderate proportion of young to old is represented in age structure  
(A) Top of pyramid  
(B) Un-shaped  
(C) Bell shaped  
(D) Broad based
- 15 Log percentage of young individuals presented in age structure  
(A) Top of pyramid  
(B) Un-shaped  
(C) Bell shaped  
(D) Broad based
- 16 Value of  $\lambda$  refers to \_\_\_\_\_ in population dynamic studies  
(A) intrinsic rate of natural increase  
(B) rate of growth  
(C) rate of mortality and natality  
(D) carrying capacity
- 17 Logistic equation describes  
(A) population growth with a lower limit  
(B) population description with range  
(C) population detail with all limits  
(D) population growth with an upper limit

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

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

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

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