DF-3046
Second Year (Envi. Sci.) (Sem. III) Examination
March / April – 2016
Population Ecology

Time : 2 Hours
[Total Marks : 50]

Instructions:

(1) Fill up strictly the details of signs on your answer book.

(2) There are 50 questions, each question carries one (1) mark and all are compulsory.

(3) Read the question carefully before selecting the correct option.

(4) All questions are compulsory.

O.M.R. Sheet भर्ना अनेकांनी अत्याचारी सूचना आपल्यास आपल्यास.
O.M.R. Sheet-नी पाण्याच्या अभावाच्या असलेल्या सूचना अपलेच आहे.
Important instructions to fill up 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
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

During which stage, xerophytic mosses develop?

(A) Foliose
(B) Moss
(C) Shrub
(D) Crustose

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

Which scientist gave theory of maturity in succession?

(A) P. D. Sharma
(B) Odum
(C) Margalef
(D) P. K. Khanna

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 Y. 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) quadrat, 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) pseudoreplication
(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