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

Time : 2 Hours] [Total Marks : 50

सूचना / Instructions :

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

Name of the Examination :
SECOND YEAR (ENVI. SCI.) (SEM. III)

Name of the Subject :
POPULATION ECOLOGY

Subject Code No. : 3 0 4 6
Section No. (1, 2,......) : Nil

Seat No. :

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

(3) All questions are compulsory.

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

O.M.R. Sheet भरवा अंगेली अंगवाली सूचना अभेड
O.M.R. Sheet-ची पत्तेल्या अभेड.

Important instructions to fill up 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 Y. 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) offsprings 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) quadratc, 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 Plants 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 area 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. Microsero 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) pseudoreplication
    (D) confounding

40. Who stated 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