Time : 2 Hours] [Total Marks : 50

General Instructions:

1. Fill up the details of your name, roll number, and other relevant information on your answer sheet.
2. The Examination will cover Second Year (Envi. Sci.) (Sem. III) Population Ecology.
3. The subject code is 3046.
4. The answer sheet is provided.

Instructions:

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.

OMR Sheet: The OMR sheet should be filled in with the provided instructions.

Important instructions to fill up OMR Sheet are given back side of provided OMR Sheet.
1. The first group of organisms establishing the succession is called as
   (A) association.  (B) society
   (C) pioneer       (D) species

2. The succession in which self modification causing replacement of new communities is
   (A) allogenic  (B) primary
   (C) secondary  (D) autogenic

3. Which type of ecological succession allows replacement of communities by external condition?
   (A) allogenic  (B) primary
   (C) secondary  (D) autogenic

4. Which are the factors affecting to the nudation?
   (A) All of these
   (B) air, water & soil
   (C) topographic, climatic & biotic
   (D) autogenic, allogenic, heterogenic

5. The successful establishment of species in a bare area completed by:
   (A) All of these
   (B) migration
   (C) ecies
   (D) aggregation

6. The sequence of communities that replaces one another in given area is called
   (A) seral communities
   (B) migrative communities
   (C) climax communities
   (D) competitive communities

7. The amphibious stage is also known as
   (A) reed swamp stage
   (B) phytoplankton
   (C) rooted submerged
   (D) rooted floating

8. Microsere succession is a part of which succession process?
   (A) allogenic
   (B) heterotrophic
   (C) autotrophic
   (D) autogenic

9. The undesirable outcome of research by statistical study is known as
   (A) confounding
   (B) inferences
   (C) acceptance
   (D) pseudoreplication

10. Who state the words "to do science is to search for patterns, not simply to accumulate facts"?
    (A) Darwin
    (B) Snee
    (C) MacArthur
    (D) Odom
11 Conclusion based on mathematical summaries of the data is known as
   (A) statistical inferences
   (B) random variables
   (C) acceptance of theory
   (D) normality

12 Which conclusion is known as inductive conclusion of research?
   (A) statistical as well experimental both
   (B) Generalized conclusion
   (C) reasoning conclusion from specific
   (D) expected conclusion

13 Who did give the concept of "statistical thinking" for ecologist?
   (A) Darwin
   (B) Snee
   (C) Arther S. E.
   (D) Odom

14 How sample is defined in statistics?
   (A) All of these
   (B) measurable unit
   (C) scientific gather data
   (D) a representative-small number of individual

15 The errors observed during deriving hypothesis
   (A) all types are consider
   (B) type 1, 2, 3
   (C) type a, b, c
   (D) type big, medium, small
16 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) Research hypothesis
(B) Full hypothesis
(C) One hypothesis
(D) Null hypothesis

17 During which stage, xerophytic mosses develop?
(A) Shrub
(B) Crustose
(C) Foliose
(D) Moss

18 Biological spectrum represents as
(A) percentage of total community in population
(B) percentage of total population of community
(C) percentage of total species in the community
(D) percentage of total species of population

19 Which scientist gave theory of maturity in succession?
(A) Margalef
(B) P. K. Khanna
(C) P. D. Sharma
(D) Odum

20 How many theories are there for studying climax concept in succession?
(A) 5
(B) 2
(C) 3
(D) 4
21 Specific density is per unit of ________
   (A) Life table
   (B) Total space
   (C) Habitat
   (D) Total number

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

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

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

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

26 Value of Y. refers to ________ in population dynamic studies
   (A) rate of mortality and natality
   (B) carrying capacity
   (C) intrinsic rate of natural increase
   (D) rate of growth

27 Logistic equation describes
   (A) population detail with all limits
   (B) population growth with an upper limit
   (C) population growth with a lower limit
   (D) population description with range
28 Plant population structure follows the levels
   (A) models and modular
   (B) off springs and winter
   (C) seed and stem
   (D) gamete and ramet

29 Function of seed bank
   (A) storage of seeds in dormant state
   (B) bank which store seeds sequence
   (C) storage of seeds in germination stage
   (D) bank which stores seed documents

30 Polycarpic refers as
   (A) never happened
   (B) polymerase reaction
   (C) repeated several time
   (D) multiple seeds at a time

31 Density independent factor that affects population
   (A) None of these
   (B) competition & predation
   (C) floods & fires
   (D) Both of these

32 Voda's -3/2 law is used to calculate
   (A) Mortality rate
   (B) Population ecosystem
   (C) Population dynamics
   (D) Growth pattern

33 Relationship between plant density & its biomass
   (A) key factor structure
   (B) intraspecific complex
   (C) self thinning curve
   (D) density curve map

34 Local diversity of species diversity refer as
   (A) All of these
   (B) no. of communities in locally
   (C) whole population in part of continents
   (D) nations different communities exist at different latitude
35  Stratification strata depends on
   (A) atmosphere & spectra
   (B) heat & waves
   (C) light & relative humidity
   (D) rains & flood

36  The zone of a lake lying below the compensation depth known as
   (A) limnetic zone
   (B) profundal zone
   (C) benthetic zone
   (D) littoral zone

37  Living in open water zone, a depth where effective light may penetrate
   (A) profundal zone
   (B) limnetic zone
   (C) benthetic zone
   (D) littoral zone

38  Orderly changed colonization lead to develop vegetation is __________.
   (A) ecession
   (B) climax community
   (C) competition
   (D) succession

39  Stabilized habitat and community is also refer as
   (A) ecession
   (B) climax community
   (C) competition
   (D) succession

40  Frequency can be recorded by physiological sampling techniques
   (A) rare, very rare and common
   (B) density, basal & cover area
   (C) abundance, dominance and density
   (D) quadrat, transect and point
41 Qualitative characters measures by
(A) quadrat, transect and point
(B) density, basal & cover area
(C) abundance, dominance and density
(D) physiognomy, phenology, stratification

42 Plant's data from different species arranged in different vertical layers come under characteristics
(A) abundance          (B) physiognomy
(C) phenology          (D) stratification

43 Proximity of individuals in populations known as
(A) abundance          (B) sociability
(C) phenology          (D) stratification

44 Synthetic characteristics are determined by
(A) quadrat, transect and point
(B) density, basal & cover area
(C) presence, constancy, dominance and fidelity
(D) physiognomy, phenology, stratification

45 Which are the categories methods to study community?
(A) quadrat, transect and point
(B) density, basal and cover area
(C) abundance, dominance and density
(D) floristic, physiognomic and phytosociological

46 Which are the parts of Raunkiaer's method?
(A) frequency and abundance
(B) life-forms and biological spectrum
(C) association index and diversity index
(D) fidelity and density

47 Which are the sampling units of phytosociological methods of community?
(A) density, line and quadrat
(B) area, line and point
(C) quadrat, transect and point
(D) density, basal and cover area

48 Environment is always changing over a period of time due to
(A) trends, ecosis and autogenic factors
(B) variations in climatic, physiographic factor, species activity
(C) soil composition, soil aec & cec ratio
(D) soil texture and porosity

49 The occurrence of relatively definite sequence of communities over a period of time in the same area is known as
(A) association          (B) society
(C) succession          (D) species

50 Which of the following are considered as causes of succession?
(A) endo,ecto and super causes
(B) primary, secondary and final causes
(C) first, second and third causes
(D) initiating, ecesis and stabilizing causes