B-2028

Total No. of Printed Pages:2

SUBJECT CODE NO:- B-2028
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. S.Y. (Sem-III) Examination Oct/Nov 2019
Botany Paper-VIII
Plant Ecology

[Time: 1:30 Hours] **[Max.Marks:50]**

Please check whether you have got the right question paper.
i) Attempt all questions.
ii) Draw neat & well labelled diagram whenever necessary.

Q.1 Give an account of major soil types of India? 20

OR

Give an account of soil conservation?

Q.2 Explain in detail the vegetation types of India. 20

OR

Write short notes (Any Four)
a) Epiphytes
b) Food Chain
c) Phosphorus Cycle
d) Community Characteristics
e) Pyramid of energy
f) Chemical properties of water

Q.3 Multiple Choice Questions. 10

1. Ranunculus is a
   a) Free floating hydrophyte
   b) Rooted emergent hydrophyte
   c) Succulent
   d) Halophyte

2. Sclerenchyma is well developed in
   (a) Casuarina (b) Aloe vera
   (c) Bryophyllum (d) Opuntia

3. Mangroves beach forest occur at
   (a) Assam (b) Malabar
   (c) Andaman (d) Central India

4. Space between soil particle is called
   (a) Pore space (b) roots
   (c) Velamen (d) Water

5. Shade tolerant species of plant is called as
   (a) Heliophyte (b) Sciophyte
   (c) Hydrophyte (d) Xerophyte

6. Plants grow in dry habitat are called as
   (a) Hydrophyte (b) Halophyte
   (c) Mesophyte (d) Xerophytes

7. Energy flow in ecosystem is
   (a) Multidirectional (b) Unidirectional
   (c) Bidirectional (d) None of these

8. Which is not a factor of abiotic ecosystem.
   (a) Temperature (b) Decomposer
   (c) Sunlight (d) Water

9. Which is the following not producer
   (a) Mushroom (b) Fern
   (c) Sea weed (d) Monocotyledons

10. Generally food chain has how many trophic levels.
   (a) One (b) Two
   (c) Three (d) Four

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Examination October 2020

B.Sc. S.Y (Sem-III)

2168 Botany Paper-VIII Plant Ecology

Time: One Hour **Max. Marks: 25**

instructions

- solve any 25 questions.

1 The branch of Biology which deals with the study of distribution, structure and various aspects of life of organism and their interaction with the environment is called as -------

(A)Ecology (B)Embryology (C)Anatomy (D)Phycology

2 ---------- is a group of similar individuals belonging to the same species found in an area

(A)Ecology (B)Population (C)Community (D)Ecosystem

3 IBP means ----------

(A)International Botanical Program (B)interdisciplinary Biological Program (C)International Biological Program (D)None of these

4 Green plants are the ----------

(A)Producers (B)Consumers (C)Decomposers (D)All of these

5 Animals which consume herbivores as well as plants as their food are called as -----

(A)Producers (B)Consumers (C)Omnivores (D)None of these

6 ---------- are the example of tertiary consumers

(A)Lions (B)Tigers (C)Vultures (D)All of these

7 Desserts, grassland, forest, man made crop fields and gardens are the example of ------ecosystem

(A)Aquatic (B)Terrestrial (C)Grassland (D)None of these

8 River, lake, pond, stream and spring are ---------- ecosystem

(A)Marine (B)Aquatic (C)Fresh water (D)Grassland

9 Organisms which break down organic material of plants or animals into simple compounds are called as ----------

(A)Decomposers (B)Transformers (C)Both a and b (D)None of these

10 A pond ecosystem is a --------- ecosystem

(A)Grassland ecosystem (B)Aquatic ecosystem (C)Both a and b (D)None of these

11 Tadpole larvae of frogs, fishes, and other aquatic animals are the example of -------- in a pond ecosystem

(A)Primary consumer (B)Secondary consumer (C)Tertiary consumer (D)None of these

12 Water Birds, Ducks, gulls, stork etc are the example of secondary consumers in --------ecosystem

(A)Pond (B)Grassland (C)Aquatic (D)None of these

13 Main source of energy is ------

(A)Moon (B)Jupiter (C)Mercury (D)Sun

14 Food chain interlock with one another and this interconnecting network is called as---

(A)Food chain (B)Food web (C)Both a and b (D)Food energy

15 Pyramid of biomass is triangular and ------

(A)Upright (B)Inverted (C)Both a and b (D)None of these

16 Plant which grow in any habitat where soil is physiologically dry are called as ----

(A)Hydrophytes (B)Xerophytes (C)Mesophytes (D)All of these

17 Opuntia, Aloe, Agave and Asparagus are the example of ------

(A)Succulent Xerophytes (B)Ephemerals (C)Non-succulent (D)All of these

18 Common land plants which grow in situations that are neither to wet nor too dry are called as ----------

(A)Hydrophytes (B)Xerophytes (C)Mesophytes (D)All of these

19 All hydrophytes contain ------ in all plant parts

(A)Chlorenchyma (B)Collenchyma (C)Aerenchyma (D)Parenchyma

20 The main cause of global climatic change is -------

(A)Increase in the the content of carbon dioxide in the atmosphere (B)Emission of industrial gases (C)Addition of dust (D)Changes in plant cover

21 Organisms of same species living in an area are called as

(A)Population (B)Community (C)Flora (D)Fauna

22 The natural place where the organism or communities live is known as

(A)Niche (B)Habit (C)Habitat (D)Biome

23 An organism with wide tolerance limit for environmental

(A)Wide distribution with low population size (B)Wide distribution with high population size (C)Narrow distribution with low population size (D)Narrow distribution with high population size

24 The water vapour present in the unit volume of air is called as --------

(A)Relative humidity (B)Static Humidity (C)Absolute humidity (D)Total humidity

25 Crop plants are the examples of ---------

(A)Xerophyes (B)Hydrophytes (C)Mesophytes (D)Succulent plants

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26 Which is submerged Rooted hydrophytes

(A)Hydrilla (B)Pistia (C)Salvinia (D)Jussiaea

27 In ---------- balancing roots are presents

(A)Pistia (B)Hydrilla (C)Salvinia (D)Nymphaea

28 If the temperature of the place increases suddenly the relative humidity ---------

(A)Increases (B)Decreases (C)Remains constant (D)Fluctuates

29 Which plant has adaptations to survive in an environment with little amount of water

(A)Xerophytes (B)Hydrophytes (C)Halophytes (D)Mesophytes

30 Xerophytes plants which grow mostly in dry zones and complete their life cycle within a short period are called as ---------

(A)Succulent (B)Ephemerals (C)Non succulent (D)None of these

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SUBJECT CODE NO:- B-2049
FACULTY OF SCIENCE & TECHNOLOGY
B.Sc. S.Y. (Sem-III)
Examination November/December- 2022
Botany Paper-VIII
Plant Ecology

[Time: 1:30 Hours] **[Max. Marks:50]**

Please check whether you have got the right question paper.

N.B i) Attempt all questions.
ii) Draw neat & well labeled diagrams wherever necessary.

Q.1 What are Halophytes? Explain morphological and anatomical adaptations with suitable examples. 20

OR

Explain, temperature as ecological factor?

Q.2 Explain Terrestrial Ecosystem in detail? 20

OR

Write short notes on.

a) Carbone cycle
b) Abiotic factors
c) Food web
d) Pyramids of Biomass
e) Soil Profile
f) Ephemeral plants.

Q.3 Multiple choice questions. 10

1) Soil formation taking place hot and humid climate is known as _____

a) Laterization b) Podsolization c) Calcification d) Gleization

2) Velamen layer is found in the roots of

a) Epiphytes b) Saprophytes c) Parasites d) None of above

3) Energy how in Ecosystem is

a) Bidirectional b) Unidirectional c) Multidirectional d) None of above

4) Plants found in rock crevices are called

a) Lethophytes b) Chasmophytes c) Psammophytes d) Eremophytes

5) Mangrove Vegetation is found in

a) Sunderban b) Dehradum vally c) Kullu vally d) Western Ghats.

6) Maintenance of an Ecosystem for longer period requires.

a) Producer b) Consumer c) Decomposer d) All of above

7) Submerged Hydrophytes have

a) Dissected leaves b) Air cavities

c) poorly developed vascular tissue d) All of above

8) Transfer of food from series of organisms with repeated eating and being eaten is known as

a) Producer b) Food Chain c) Productivity d) None of above

9) Tundra Biomes are

a) Tropical b) Subtropical c) Temperate d) Arctic region

10) Viviparous germination is found in

a) Hydrophytes b) Xerophytes c) Halophytes d) Mesophytes.

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SUBJECT CODE NO: - 2049
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. S.Y (Sem. III)
Examination March/April-2022 (To Be Held In June/July-2022)
Botany Paper-VIII
Plant Ecology

[Time: 1:53 Hours] **[Max. Marks:50]**

Please check whether you have got the right question paper.

N.B i) Attempt all the questions.
ii) Draw neat & well labeled diagrams, wherever necessary.

Q.1 What are Hydrophytes? Explain morphological and anatomical adaptations with suitable example? 20

OR

Give an account of Physicochemical properties of water?

Q.2 Explain Vegetation types of India? 20

OR

Write short notes (any four).

a) Ecological pyramids of Energy.
b) Phosphorus cycle.
c) Epiphytes.
d) Food chain.
e) Succulents.
f) Role of Light.

Q.3 Multiple choice questions. 10

1) The soil transported by air is called
   a) Alluvial
   b) Colluvial
   c) Eolian
   d) Glacial.

2) Epiphytes are very common in
   a) Tropical dry forests.
   b) Tropical forests
   c) Temperate Forests
   d) All of above.

3) Pyramids of Energy in Ecosystem is
   a) Always upright
   b) May be upright and inverted.
   c) Always inverted.
   d) None of above.

4) The plant which are found in saline soil with high concentration
   a) Hydrophytes.
   b) Halophytes.
   c) Xerophytes
   d) Epiphytes.

5) Ultraviolet radiation from sunlight is absorbed by--------
a) Co
b) CO_2
c) O_3
d) so_4

6) In light spectrum ----- light has Maximum wave length.
   a) Red
   b) Green
   c) Blue
   d) Yellow

7) The total number of plant species per unit area are highest in
   a) Tropical rain Forest.
   b) Desert community.
   c) Temperate forest.
   d) Grassland community.

8) A group of several species living together with mutual tolerance.
   a) Community.
   b) Succession.
   c) Population.
   d) None of about.

9) Number of primary producers with in a specific area would be minimum in
   a) Grassland.
   b) Pond ecosystem.
   c) Desert.
   d) Forests Ecosystem.

10) Direct climatic factors are
   a) Light and Temperature.
   b) Soil and slopes.
   c) All of above.
   d) None of above.

Total No. of Printed Pages: 2

SUBJECT CODE NO: - Y-2049
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. S.Y (Sem-III)
Examination March / April - 2023
Botany Paper-VIII Plant Ecology

[Time: 1:30 Hours] **[Max. Marks: 50]**

Please check whether you have got the right question paper.

N. B 1) Attempt all questions.
2) Draw neat & well labeled diagrams wherever necessary.

Q1 What is soil profile? Describe briefly the factors that affect soil formation? 20

OR

Describe the floristic region of India?

Q2 Define the ecosystem. Describe the components of ecosystem? 20

OR

Write short notes (Any Four): -

a) Food web
b) Epiphytes
c) Frequency
d) Light
e) Nitrogen cycle
f) Characteristics of community

Q3 Multiple Choice Questions. 10

1. Which is the abiotic component of an ecosystem _____.
   a) Soil b) protein c) carbon d) All of the above
2. Denitrification most takes place in _____.
   a) Aerobic b) Anaerobic c) Both d) None of the above
3. Plants grows in day habitats are called as _____.
   a) Hydrophytes b) Mesophytes c) Xerophytes d) Helophytes

4. Indian Forest have generally, classified as the basis of _____.

   a) Temperature b) water c) soil d) All of these

5. In grassland ecosystem the pyramids of energy is _____.

   a) Upright b) Inverted c) upright or inverted d) None of these

6. Pedology is the study of _____.

   a) Locomotion of Animal b) soil

   c) Rocks d) None of these

7. Water is a _____.

   a) Polar solvent b) Non polar solvent

   c) An Amphipathic solvent d) None of these

8. Sunken stomata are found in the leaves of _____.

   a) Nelumbium b) Neem c) Maize d) Nerium

9. Which elements are dependent on biogeochemical cycle?

   a) Carbon b) Nitrogen c) Sulpher d) All of these

10. Physiognomic methods of study of plant communities were given by _____.

    a) Raunkiaer b) Cowles c) Post d) Flashault

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SUBJECT CODE NO: - BB-2382
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. (CBCGS) (Pattern 2022) S.Y SEM III
Examination November/December-2023
Botany-VIII Plant Physiology

[Time: 1:30 Hours] **[Max. Marks : 40]**

Please check whether you have got the right question paper.

N. B i) Attempt all questions.
ii) All questions carry equal marks.
iii) Draw neat and well labelled diagrams wherever necessary.

Q1 What are enzymes? Discuss its mode of action. **10**

OR

Describe in brief.
(a) phases of Growth **10**
(b) Role and practical applications of cytokinins

Q2 What is Photosynthesis / Describe light reaction – Hill reaction in detail. **10**

OR

Describe in brief. **10**
(a) Ultra structure of Mitochondria
(b) ATP

Q3 Write short notes (Any two) **10**
(a) Plasmolysis
(b) Deficiency symptom of micronutrients
(c) Protoplasmic streaming theory

Q4 Write short notes (Any two) **10**
(a) Lenticular transpiration
(b) Co-enzymes
(c) Photosynthetic pigments