

# Botany Mcqs Paper 2015

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- 1. Plants expressing foreign genes introduced by genetic engineering are:
  - (a) Transgens (b) Hybrids (c) Mutants (d) Polyploids (e) None of these
- 2. An association of species in which both partners benefits is called:
  - (a) Antagonism (b) Competition (c) Mutualism (d) None of these
- 3. Autotrophs are primary producers in:
  - (a) Food web (b) Food chain (c) Food series (d) Food security (e) None of these
- 4. A multiprotein complex that comprises ATPase in thylakoid membrane is:
  - (a) CF<sub>0</sub>-CF<sub>1</sub> (b) CF<sub>0</sub>-CF<sub>2</sub> (c) CF<sub>1</sub>-CF<sub>2</sub> (d) CF<sub>2</sub>-CF<sub>1</sub> (e) None of these
- 5. Set of conditions in which an organism completes its life cycle is:
  - (a) Niche (b) Habitat (c) Biome (d) Habit (e) None of these
- 6. Suberized band in the cell wall of endodermis is:
  - (a) Exodermal strip (b) Casparian strip (c) Abscission strip
  - (d) Hypodermal strip (e) None of these
- 7. Genetically dwarfness can be overcome by treatment with:
  - (a) Jasmonates (b) Auxins (c) Abscissic acid (d) Gibberellins (e) None of these
- 8. Exchange of genetic material between two paired chromosome during meiosis is:
  - (a) Test cross (b) Back cross (c) Inbreeding (d) None of these
- 9. Free space in tissues comprising cell wall and intercellular spaces:
  - (a) Symplast (b) Apoplast (c) Protoplast (d) Amyloplast (e) None of these
- 10. Chromosome complement with  $2n-1$  is called:
  - (a) Disomy (b) Nullisomy (c) Monosomy (d) Tetrasomy (e) None of these
- 11. Plants shedding their leaves seasonally are called:
  - (a) Annuals (b) Biannuals (c) Perennials (d) Deciduous (e) None of these
- 12. Organisms that obtain energy by metabolizing the inorganic sources are:
  - (a) Lithotrophs (b) Osmotrophs (c) Heteroautotrophs (d) Phototrophs (e) None of these
- 13. The culminating stage of plant succession in a given ecosystem is:
  - (a) Cline (b) Climate (c) Climax (d) Cleave (e) None of these
- 14. Climatically and geographically similar conditions on the earth are called:
  - (a) Biotope (b) Biomes (c) Biosphere (d) Biography (e) None of these
- 15. Vernalization is process in which flowering is promoted by:
  - (a) Salt treatment (b) Hot treatment (c) Cold treatment (d) None of these
- 16. Which of the following contains its own DNA?
  - (a) Golgi bodies (b) Mitochondria (c) Ribosomes (d) None of these
- 17. In chlorophyll, four rings of pyrrole forming a complex with:
  - (a) Cu-atom (b) Fe-atom (c) Mg-atom (d) K-atom (e) None of these
- 18. Plants growing inside another plant are called:
  - (a) Endophytes (b) Exophytes (c) Amphiphytes (d) Phleophytes (e) None of these

- 19. A functional unit of modern ecology is:
  - (a) Habitat (b) Biosphere (c) Succession (d) None of these
- 20. Mutation arising as an immediate and direct response to selective pressure:
  - (a) Point mutation (b) Adaptive mutation (c) Shift mutation
  - (d) Natural selection (e) None of these

## Botany Mcqs Practice Test

### ***THE OSMOSIS MEANS***

flow of solutes from low concentration to higher concentration

flow of solutes from higher concentration to low concentration

flow of solvents from low concentration to high concentration

flow of solvent from high concentration to low concentration

### ***WATER IS ABSORBED THROUGH THE ROOT HAIRS BY MEANS OF :***

respiration

turgor pressure

transpiration

osmosis

### ***A LAND BIOME IS IDENTIFIED PRIMARILY BY ITS***

climax vegetation

pioneer organisms

dominant animals

food chains

### ***RADIAL VASCULAR BUNDLES OCCUR IN:***

monocot stem

dicot stem

monocot leaf

monocot root

***TRANSPIRATIONAL PULL IN LAND PLANTS IS A PHYSICAL FACTOR ASSOCIATED WITH UPWARD TRANSPORT IN THE***

phloem

cambium

xylem

cotyledon

***PLANTS CELLS DIFFER FROM ANIMALS CELLS IN WHICH ONE IMPORTANT WAY?***

plants cells all possess chlorophyll

plants cells have a large central vacuole

plants cells are bigger

plants cells are not so specialized

***THE EDIBLE FUNGI ARE***

rusts

carrot

Mildews

mushrooms

***THE VACULE OF A PLANT CELL CONTAINS***

water

cytoplasm

the nucleus

water plus dissolved chemical

***TRANSPIRATION TAKES PLACE FROM:***

steam

leaves

all parts of the plants

only arial part of the plant

***ATIBIOTICS ARE MOSTLY PRODUCED COMMERCIATTY FROM?***

bacteria

viruses

algae

fungi

***THE PRESENCE OF LIGNIN IN THE CELL WALL IS THE CHARACTERISTIC FEATURE OF:***

woody tissue

phloem

soft tissue

cortex

***GENES ARE MADE OF:***

histone

polynucleotides

hydrocarbons

Lipoprotein

***THE PATH OF TRANSLOCATION OF MINERAL IONS IN THE PLANT IS THROUGH:***

cortex

phloem

pith

endodermis

***WILTING OF A PLANT RESULTS FROM EXCESSIVE:***

absorption

photosynthesis

respiration

transpiration

***THE PROCESS IN WHICH WATER IS SPLIT DURING PHOTOSYNTHESIS IS***

photolysis

plasmolysis

hydrolysis

hemolysis

## Botany Mcqs Practice Test

***WHAT SHOULD HAPPEND IF THIN SLIEC OF SUGER BEET IS PLASED IN A CONCENTRATED SOLUTION OF SODIUM CLORIDE?***

it should lose water from the cells

It should become turgid

it should neither absorb water nor lose water

it should absorb water from salt solution

***SAPROPHYTES BREAK DOWN DEAD ORGANIC MATTER BY SECRETING***

hormones

enzymes

auxin

bacteria

***THE PRESENCE OF LIGNIN IN THE CELL WALL IS THE CHARACTERISTIC FEATURE OF:***

woody tissue

phloem

soft tissue

cortex

***STOMATA IN MOSS ARE PRESENT IN***

leaf

stem

lower part of capsule

upper part of capsule

***TRANSPIRATION TAKES PLACE FROM:***

stem

leaves

all parts of the plants

only arial part of the plant

***THE SIZE OF THE STOMATES IN A LEAF IS CONTROLLED BY THE***

xylem cells

phloem cells

guard cels

heterotrophic cells

***WHY CAMBIUM IS CONSIDERD A LATERAL MERISTEM?***

Because it gives rise to lateral branches

Because it increase the birth of the plant

Because it increase the length of the plant

Because it increase the height and the diameter of the plant

***IN RESPIRATION PYRUVIC ACID IS***

Formed only when oxygen is available

product of glycolysis

broken doun into carbon fragment

a result of protein breakdown

***OPNING OF STOMATA IS DUE TO:***

turgidity of guard cells

size of guard cells

number os guard cells

amount of corbon\_dioxide in atmosphere

***THE TISSUE RESPONSIBLE FOR TRANSLOCATION OF FOOD MATERIAL IS:***

Vessels

sieve tubes

parenchyma

fibres

***WHICH OF THE FOLLOWING IS A RAPID TYPE OF ABSORPTION?***

passive absorption

active absorption

salt absorption

root tip absorption

***THE VASCULAR BUNDLES ARE SURROUNDED BY A SCLERENCHYMATOUS SHEATH IS:***

dicot stem

monocot stem

dicot root

monocot stem

***THE LIVING PART OF PLANT CELL IS CALLED?***

cell wall

protoplasm

hyloplasm

cell sap



**IF GENES FOR TWO DIFFERENT TRAITS ARE LOCATED ON THE SAME CHROMOSOME ,  
THEY ARE SAID TO BE**

allelic

linked

segregated

intermediate

**RADIAL VASCULAR BUNDLES OCCUR IN:**

monocot stem

dicot stem

monocot leaf

monocot root

## Botany Mcqs For PCS & CSS Exams

(i) The Green Algae belongs to:

- (a) Cyanochloranta
- (b) Chlorophycophyta
- (c) Charophyta
- (d) Cryptophycophyta
- (e) None of these

(ii) If the gametes and gametangia in Fungi are of unequal size, they are termed as:

- (a) Heterothallic
- (b) Homothallic
- (c) Isogametes
- (d) Anisogametes
- (e) None of these

(iii) Chlorophyll 'd' exists in:

- (a) Pyrrophyta
- (b) Phaeophyta
- (c) Cryptophyta
- (d) Rhodophyta
- (e) None of these

(iv) Which of the type of chlorophyll is rare in Xanthophyceae and has been determined in only two of its genera:

- (a) chlorophyll 'a'
- (b) chlorophyll 'e'
- (c) chlorophyll 'b'
- (d) chlorophyll 'd'
- (e) None of these

(v) The Axoneme in an algal filament is composed of \_\_\_\_\_ fibrils:

- (a) five
- (b) seven
- (c) eleven
- (d) one
- (e) None of these

(vi) An antibiotic called "Chlorellin" is derived from:

- (a) Chara
- (b) Spirogyra
- (c) Volvox
- (d) Chlorella
- (e) None of these

(vii) In Pakistan, Volvox is found abundantly in water ponds during the months of:

- (a) March and April
- (b) May and June
- (c) November and December
- (d) January and February
- (e) None of these

(viii) Because of extracting \_\_\_\_\_ from water and depositing it in their walls different species of Chara are referred to as "Stone Worts":

- (a) Sodium chloride
- (b) Calcium carbonate
- (c) Potassium sulphate
- (d) Potassium nitrate
- (e) None of these

(ix) Puccinia graminis causes \_\_\_\_\_ in wheat:

- (a) Yellow or stripe rust
- (b) Brown or orange leaf rust
- (c) Black or stem rust
- (d) Loose green smut
- (e) None of these

(x) The zero and one stages of Puccinia graminis are produced on:

- (a) Triticum aestivum
- (b) Hordeum Vulgare
- (c) Sorghum Vulgare
- (d) Barberis Vulgaris
- (e) None of these

(xi) A stable self-supporting association of a \_\_\_\_\_ is termed as lichen:

- (a) bryophyte & a pteridophyte
- (b) mycobiont & a phycobiont
- (c) plant & animal
- (d) gymnosperm & angiosperm
- (e) None of these

(xii) Equisetum is the only living genus that belongs to:

- (a) Sphenopsida
- (b) Caphalida
- (c) Chlorophycophyta
- (d) Pteropsida
- (e) None of these

(xiii) The genus Equisetum comprises about 25 species distributed world-over except in:

- (a) Eurasia
- (b) North America
- (c) South America
- (d) Australasia
- (e) None of these

(xiv) The members of class Filicinae in pteridophyta date back to \_\_\_\_\_ era:

- (a) Mesozoic
- (b) Paleozoic
- (c) Cenozoic
- (d) Cambrian
- (e) None of these

(xv) Marsilea quadrifolia belongs to the group of plants known as:

- (a) Lichens
- (b) Sedges
- (c) Ferns
- (d) Shrubs
- (e) None of these

(xvi) \_\_\_\_\_ show marked affinities with both Pteridophytes and angiosperms:

- (a) Bryophytes
- (b) Hydrophytes
- (c) Gymnosperms
- (d) Epiphytes
- (e) None of these

(xvii) \_\_\_\_\_ has five leaves in the spur:

- (a) Pinus longifolia
- (b) Pinus excelsa
- (c) Pinus roxberghii
- (d) Pinus wallichiana
- (e) None of these

(xviii) The resting period between pollination and fertilization in *Taxus baccata* may be:

- (a) Five to ten months
- (b) Two to three months
- (c) One to two months
- (d) Ten to eleven months

(xix) In *Ephedra*, the oosphere undergoes repeated divisions to produce eight-celled:

- (a) Zygote
- (b) Zygospore
- (c) Endosperm
- (d) Pro-embryo
- (e) None of these

(xx) Double fertilization is a characteristic of:

- (a) Gymnosperms
- (b) Bryophytes
- (c) Angiosperms
- (d) Pteridophytes
- (e) None of these

(i) NADH from the Krebs cycle is approximately equal to:

- (a) 2 ATP
- (b) 3 ATP
- (c) 4 ATP
- (d) 6 ATP
- (e) None of these

(ii) In mitochondrial electron transport chains, the final electron acceptor is:

- (a)  $H_2O$
- (b)  $H_2O_2$
- (c)  $NAD^+$
- (d) FAD
- (e) None of these

(iii) The movement of water from cell to cell via plasmodesmata is called:

- (a) Symplastic
- (b) Transmembrane
- (c) Apoplastic
- (d) Facilitated
- (e) None of these

(iv) In maize plant, the  $CO_2$  fixation mechanism is called:

- (a)  $C_3$  pathway
- (b)  $C_4$  pathway
- (c) CAM pathway
- (d)  $C_3 - C_4$  intermediate
- (e) None of these

(v) Salt-loving plants are known as:

- (a) Glycophytes

- (b) Halophytes
- (c) Xerophytes
- (d) Mesophytes
- (e) None of these

(vi) With the addition of solution to a liquid system, the water potential of the system:

- (a) Increases
- (b) Decreases
- (c) Remains stable
- (d) Remains variable
- (e) None of these

(vii) The conversion of pyruvate into acetyl CoA is called:

- (a) Glycolysis
- (b) Fermentation
- (c) Oxidative carboxylation
- (d)  $\beta$ -Oxidation
- (e) None of these

(viii) Between adenine and thymine, there are:

- (a) Two hydrogen bonds
- (b) 3 hydrogen bonds
- (c) One hydrogen bond
- (d) 4 hydrogen bonds
- (e) None of these

(ix) The stage of meiosis in which pairing of homologous chromosomes starts is called:

- (a) Leptotene
- (b) Zygotene
- (c) Diplotene
- (d) Pachytene
- (e) None of these

(x) The site of chromosome on which a gene is located is called:

- (a) Allele
- (b) Locus
- (c) Site
- (d) Trait
- (e) None of these

(xi) In a dihybrid cross, the ratio of F<sub>2</sub> generation is:

- (a) 9:3:3:1
- (b) 3:1
- (c) 1:2:1
- (d) 1:1
- (e) None of these

(xii) When a single gene has multiple effects, the phenomenon is called:

- (a) Codominance
- (b) Epistasis

- (c) Pleiotropy
- (d) Genostasis
- (e) None of these

(xiii) Lamarck's theory of evolution was published in:

- (a) 1807
- (b) 1808
- (c) 1809
- (d) 1810
- (e) None of these

(xiv) The book "Origin of Species" was written by:

- (a) Linnaeus
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- (e) None of these

(xv) The interaction between algae and fungi to form lichen is called:

- (a) Parasitism
- (b) Mutualism
- (c) Commensalism
- (d) Amensalism
- (e) None of these

(xvi) The actual location or place where an organism lives is called:

- (a) Habitat
- (b) Ecosystem
- (c) Niche
- (d) Biome
- (e) None of these

(xvii) Which of the biomes has been increased in area by human activities?

- (a) Savanna
- (b) Grassland
- (c) Desert
- (d) Coniferous forest
- (e) None of these

(xviii) Which zone of the lake ecosystem consists of phyto-and zoo-planktons?

- (a) Littoral zone
- (b) Limnetic zone
- (c) Profundal zone
- (d) Water deep layers
- (e) None of these

(xix) Which of the following is a biotic component of an ecosystem?

- (a) Producers
- (b) Consumers
- (c) Decomposers

- (d) All of these
- (e) None of these

(xx) A sequence of changes in the community structure of an ecosystem over a period of time is called:

- (a) Natural selection
- (b) Succession
- (c) Neo-Darwinism
- (d) Lamarckism
- (e) None of these

ans

- 1.3ATP
- 2.h<sub>2</sub>o
- 3.symplast
- 4.c<sub>4</sub>pathway
- 5.halophytes
- 6.remain stable
- 7.none(oxidative decarboxylation)
- 8.two hydrogen bond
- 9.zygotene
- 10.locus
- 11.9:3:3:1
- 12.pleiotrophy
- 13.1909
- 14.darwin
- 15.mutualism
- 16.habitat
- 17.grassland
- 18.all of these
- 20.succession

## Botany Mcqs For PCS Exam

Q.1. Select the best option/answer and fill in the appropriate box on the Answer Sheet. (20)

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(1) Pappus found in compositae is the modification of:

- (a) Calyx
- (b) Bract
- (c) Corolla
- (d) Stamen
- (e) None of these

(2) In Malvaceae androecium is characteristically:

- (a) Monadelphous
- (b) Didynamous
- (c) Diadelphous
- (d) Tetradynamous
- (e) None of these

(3) The first phylogenetic system of plant classification was proposed by:

- (a) Engler
- (b) Prantl
- (c) Wettstien

- (d) Eichler
- (e) None of these

(4) The androecium in Compositae is:

- (a) Epitetalous and monodelphous
- (b) Polyandrous and monodelphous
- (c) Polyandrous and syngenesious
- (d) Epitetalous and syngenesious
- (e) None of these

(5) The fruit of mango is:

- (a) Berry
- (b) Drupe
- (c) Pome
- (d) Nut
- (e) None of these

(6) Fungal spores produced asexually at tip or side of hyphae are called:

- (a) Sporangiophore
- (b) Anthrospores
- (c) Conidia
- (d) Spores
- (e) None of these

(7) Damping off disease is caused by:

- (a) Aspergillus
- (b) Ustilago
- (c) Pythium
- (d) Puccinia
- (e) None of these

(8) Obliquely placed ovary is present in the family:

- (a) Rutaceae
- (b) Solanaceae
- (c) Malvaceae
- (d) Labiatae
- (e) None of these

(9) Gynobasic style arises from the base of ovary. This is characteristic of the family:

- (a) Labiatae
- (b) Solanaceae
- (c) Compositae
- (d) Malvaceae
- (e) None of these

(10) Columella is present in sporangium of:

- (a) Spirogyra
- (b) Yeast
- (c) Ulothrix
- (d) Rhizopus

(11) Which of the following diseases is caused by fungus?

- (a) Cholera
- (b) Rust of wheat
- (c) T.B
- (d) Tetanus

(12) Target board effect is caused by:

- (a) Alternaria
- (b) Colletotrichum
- (c) Pyricularia
- (d) Helminthosporium

(13) Edible fungus is:

- (a) Aspergillus
- (b) Agaricus
- (c) Penicillium
- (d) None of these

(14) Clamp connections are very common in:

- (a) Ascomycetes
- (b) Basidiomycetes
- (c) Phycomycetes
- (d) None of these

(15) Penicillin was extracted by:

- (a) Flemming
- (b) Huxley
- (c) Lamarck
- (d) Brown

(16) Bacteria belong to:

- (a) Schizomycetes
- (b) Actinomycetes
- (c) Epigynous
- (d) None of these

(17) Mushroom is a:

- (a) Parasite
- (b) Saprophyte
- (c) Photosynthetic
- (d) None of these

(18) The sieve elements are the major components of:

- (a) Xylem
- (b) Phloem
- (c) Cambium
- (d) None of these

(19) The gametes taking part in sexual reproduction of rhizopus are:

- (a) Uninucleate
- (b) Binucleate
- (c) Multinucleate
- (d) Dikaryotic
- (e) None of these

(20) Blue green algae is a common name of:

- (a) Xanthophyceate
- (b) Chlorophyceae
- (c) Cyanophycemae
- (d) Charophyceae
- (e) None of these

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