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NEET TYPE QUESTIONS
BIO-BOTANY – TAXONOMY OF ANGIOSPERMS

1. The ultimate aim of classification is
 1. to establish phylogenetic relationship among different groups of plants.
 2. to arrange plants in an orderly sequence based upon their similarities.
 3. to identify the economically important plants
 4. to keep totally unrelated plants in a single group and closely related plants in separate groups.
2. The later systems of classification gave more importance to floral characters because
 1. they are more unstable and permanent
 2. they are easily influenced by the environment
 3. they are more stable and permanent
 4. they are seen in all the plants
3. Match Part - A with Part - B and find out the correct answer.

Part - A	Part - B
(i) Species plantarum	a) Charles Darwin
(ii) Genera plantarum	b) Bentham and Hooker
(iii) Origin of species	c) Engler and Prantl
(iv) Die Natürlichen Pflanzen Familien	d) Camp and Gily
	e) Carolus Linnaeus

 1. i - e, ii - b, iii - a, iv - c
 2. i - c, ii - b, iii - a, iv - e
 3. i - e, ii - d, iii - a, iv - c
 4. i - e, ii - b, iii - d, iv - c
4. Find out the correct statement(s).
 - a) Artificial system of classification is based on one or a few superficial characters.
 - b) More number of characters including phylogenetic relationships are taken into consideration in natural system of classification.
 - c) Charles Darwin proposed phylogenetic system of classification.
 - d) Closely related families have been separated and placed under different groups in Bentham and Hooker's system of classification.
 1. (a) and (d)
 2. (a), (b) and (d)
 3. (a) only
 4. (a), (c) and (d)
5. Half inferior ovary is the characteristic feature of the series
 1. Thalamiflorae
 2. Calyciflorae
 3. Disciflorae
 4. Bicarpellatae
6. Which one of the following statement is correct?
 1. Genera plantarum includes 24 classes and 97,205 species.
 2. Species plantarum includes 3 classes and 7300 species.
 3. Genera plantarum includes 202 classes and 92,705 species.
 4. Species plantarum includes 24 classes and 7300 species.
7. Which one of the following system of classification is also known as sexual system of classification?
 1. Bentham and Hooker's system
 2. Engler and Prantl's system
 3. Carolus Linnaeus's system
 4. Camp and Gily's system
8. A system in which no importance was given to either natural or phylogenetic relationships among different groups of plants was proposed by
 1. Carolus Linnaeus
 2. Bentham and Hooker
 3. Charles Darwin
 4. Engler and Prantl
9. The system of classification that helps to determine the relationships and affinities among various groups of plants is
 1. Natural system
 2. Artificial system
 3. Phylogenetic system
 4. Biosystematics
10. Find the characteristics of Solanum nigrum
 - a) Ebracteate flower
 - b) Extra axillary scorpioid cyme inflorescence
 - c) Spinous stem
 - d) Anthers dehiscing through apical pores
 1. (a), (b) and (c)
 2. (b), (c) and (d)
 3. (a) and (b)
 4. (a), (b) and (d)
11. The advanced characters according to Phylogenetic system of classification is/are
 - a) Flowers with no perianth
 - b) bisexual flowers
 - c) pollination by insects
 - d) pollination by wind
 1. (a) and (d)
 2. (b) and (c)
 3. (c) only
 4. (a), (c) and (d)

12. Which of the following statement(s) is/are correct?
- Members of Zingiberaceae and Anacardiaceae possess only one stamen.
 - Members of Asteraceae and Orchidaceae are highly advanced according to Charles Darwin.
 - Liliaceae of monocotyledons and Solanaceae of dicotyledons possess ditheous anthers.
 - Members of Malvaceae and Solanaceae possess introrse anthers.
- (b) and (d)
 - (a) and (c)
 - (a), (b) and (c)
 - (a) only
13. The basic unit of biosystematics is
- comparium
 - cenospecies
 - ecospecies
 - ecotype
14. Analyse the following sentences and find out the correct answer.
- Gaspard Bauhin introduced binomial nomenclature in 1623
 - Species plantarum was published by Linnaeus in 1773 in which binomial system had been properly been made use.
 - Genera plantarum was published by Bentham and Hooker in three volumes.
 - The term 'biosystematics' was coined by Camp and Gily in 1943.
- (a), (c) and (d) are wrong
 - (a) and (d) are correct
 - (a), (b) and (d) are correct
 - Only (b) is wrong
15. Match Part - A with Part - B and find out the correct answer.
- | Part - A | Part - B |
|--------------------------|-----------------------|
| i) Artificial system | a) Engler and prantl |
| ii) Natural system | b) Camp and Gily |
| iii) Phylogenetic system | c) Gaspard Bauhin |
| iv) Biosystematics | d) Bentham and Hooker |
| v) Binomial nomenclature | e) Carolus Linnaeus |
- i - (e), ii - (d), iii - (a), iv - (b), v - (c)
 - i - (c), ii - (d), iii - (a), iv - (b), v - (e)
 - i - (a), ii - (c), iii - (d), iv - (b), v - (e)
 - i - (e), ii - (d), iii - (b), iv - (a), v - (e)
16. Find out the wrong statement.
- Polynomial names were commonly used before the middle of the eighteenth century.
 - According to Engler and Prantl orchidaceae is the primitive family.
 - The plants that are closely related show more similarities.
 - Polynomial names are difficult to remember and use.
17. Which one of the following statement is wrong?
- 5th International Botanical Congress was held at Cambridge in 1930.
 - The aim of 5th International Botanical Congress is to frame rules and regulations for naming plants.
 - The current ICBN was adopted from 1975.
 - The 12th International Botanical Congress meeting was held at Leningrad in 1975.
18. Find out the wrong statement.
- Ecotype is equivalent to subspecies of classical taxonomy
 - Binomial name of mango tree is *Acalypha indica*
 - Ecospecies is equivalent to species of classical taxonomy
 - Binomial is a binary epithet
19. Tautonym refers to
- naming the plant from a source of error
 - a plant with the same generic and specific names
 - a plant growing on rocks with grass like leaves
 - a plant specimen deposited in a recognized herbarium
20. Which one of the following is not the salient feature of ICBN?
- The description of the plant should accompany latin translation
 - Tautonyms are not accepted in the system of nomenclature.
 - Binomial names should be printed in italics.
 - The plant should bear the authors name at the beginning of the specific epithet
21. The generic and specific names are
- singular noun and adjective respectively
 - noun and adverb respectively
 - adverb and singular noun respectively
 - adjective and singular noun respectively
22. The standard size of herbarium sheet is
- 49 cm x 21 cm
 - 41 m x 29 m
 - 41 cm x 29 cm
 - 41 mm x 29 mm
23. To check the growth of the fungus and attack of insects, the mounted specimens are sprayed with
- the fungicide 0.2% mercuric chloride and pesticides such as naphthalene and carbon di sulphide.
 - the fungicide 0.1% mercuric chloride and pesticides such as streptomycin and methyl iso cyanate.
 - the fungicide 0.1% mercuric chloride and pesticides such as naphthalene and carbon di sulphide.
 - the fungicide Bordeaux mixture and pesticides such as naphthalene and carbon di sulphide.

24. The largest Herbarium in the world is located at
1. Royal Botanical Gardens, Kew.
 2. Indian Botanical Gardens, Kolkata.
 3. Botanical Survey of India, Coimbatore.
 4. Rapinet Herbarium, Trichy.
25. The number of plant specimens present in the world's largest herbarium is
1. more than 60,000
 2. more than 60,00,0000
 3. more than 10,00,000
 4. more than 1,90,000
26. In Bentham and Hooker's system of classification, the present day 'orders' and the present day 'families' were respectively referred to as
1. Cohorts and Orders
 2. Families and Cohorts
 3. Orders and Cohorts
 4. Series and Order
27. In Bentham and Hooker's system of classification
1. Thalamiflorae is series I under subclass II of dicotyledons which includes 6 orders and 34 families.
 2. Bicarpellatae is series III under subclass II of dicotyledons which includes 4 orders and 24 families.
 3. Monochlamydeae is subclass III of dicotyledons which includes 8 orders and 36 families.
 4. Liliaceae comes under the order Coronarieae of class III of seed plants.
28. Flowers with dome shaped thalamus is included in the series
1. Thalamiflorae
 2. Calyciflorae
 3. Polypetalae
 4. Disciflorae
29. The characteristics of the series Bicarpellatae are
- a) flowers are hypogynous
 - b) carpels more than two
 - c) flowers are epigynous
 - d) the petals are either partially or completely fused
 - e) carpels two
1. (a) and (d)
 2. (b), (c) and (d)
 3. (b) and (e)
 4. (a), (d) and (e)
30. According to Bentham and Hooker
1. all the families under the series Curvembryae are related to Caryophyllaceae of Calyciflorae.
 2. The 2nd class of seed plants contains 34 families.
 3. Ranales is the first order in the arrangement of plants and is kept under the series Thalamiflorae.
 4. Asteraceae of dicotyledons and Orchidaceae of monocotyledons have been considered as highly advanced families.
31. Podostemaceae, Caryophyllaceae and Laurineae were placed under the series
1. Multiovulatae aquaticae, Daphnales and Thalamiflorae respectively
 2. Multiovulatae aquaticae, Thalamiflorae and Daphnales respectively
 3. Ranales, Calyciflorae and Daphnales respectively
 4. Calyciflorae, Thalamiflorae and Daphnales respectively
32. According to Bentham and Hooker's system of classification, Orders are absent in
- | | |
|-------------------|-------------------|
| a) Monocotyledons | b) Gymnosperms |
| c) Polypetalae | d) Monochlamydeae |
1. (a) and (d)
 2. (a), (b) and (d)
 3. (a), (b) and (c)
 4. (a) only
33. Find out the correct statements with regard to Bentham and Hooker's system of classification.
- a) It does not attempt to bring out evolutionary relationship among different plant groups.
 - b) Some aspects of this classification show affinity to modern concepts of evolution.
 - c) The placement of monocotyledons after dicotyledons appears to be against evolutionary trends.
 - d) The placement of gymnosperms in between monocotyledons and dicotyledons is an error, because angiosperms are primitive when compared to gymnosperms.
1. (a) and (c)
 2. (a) and (b)
 3. (c) and (d)
 4. (a), (b) and (d)
34. Which of the following are true?
- a) Glandular hairs are seen in the leaves of *Jatropha curcus*
 - b) The male flowers of *Euphorbia* contain only a single stamen enclosed within the perianth.
 - c) Branched filaments are seen in *Ricinus communis*
 - d) Nectar secreting gland is located in the catkin.
1. (a) and (c)
 2. (a) (b) and (c)
 3. (a), (c) and (d)
 4. (b) and (d)
35. Which one of the following is/are correct?
- a) The flowers of *Heteromerae* have epigynous flowers with more than two carpels.
 - b) The flowers of *Disciflorae* have hypogynous flowers.
 - c) The flowers of *Monochlamydeae* are incomplete.
 - d) The family *Euphorbiaceae* comes under the order unisexuales.
1. (b) and (c)
 2. (b) only
 3. (b), (c) and (d)
 4. (c) and (d)
36. The number of families that are included under the class dicotyledons in Bentham and Hooker's system of classification is
1. 84
 2. 165
 3. 202
 4. 168

37. The members of one family contains mucilage substance. The members of the other family contains milky or watery latex. They are respectively
1. Malvaceae and Solanaceae
 2. Malvaceae and Euphorbiaceae
 3. Solanaceae and Euphorbiaceae
 4. Solanaceae and Liliaceae
38. Which one of the following pair is correct?
1. Bracteolate - Abutilon indicum
 2. Ebracteolate - Allium cepa
 3. Exstipulate - Hibiscus rosa-sinensis
 4. Bracteate - Solanum nigrum
39. Match Part - A with Part - B and find out the correct answer.
- | Part - A | Part - B |
|----------------|----------------------------|
| i) Scapigerous | a) Acalypha indica |
| ii) Rhipidium | b) Euphorbia |
| iii) Cyathium | c) Malvastrum coromendelia |
| iv) Catkin | d) Solanum nigrum |
| | e) Allium cepa |
1. i - e, ii - d, iii - b, iv - a
 2. i - e, ii - c, iii - a, iv - b
 3. i - e, ii - d, iii - b, iv - c
 4. i - c, ii - d, iii - a, iv - e
40. The binomial names of Hollyhock, Chinese Rose and Egyptian cotton are respectively
1. Althaea rosea, Hibiscus schizopetalus, Gossypium barbadense
 2. Althaea rosea, Hibiscus rosa-sinensis, Gossypium hirsutum
 3. Abutilon indicum, Hibiscus rosa-sinensis, Gossypium hirsutum
 4. Althaea rosea, Hibiscus rosa-sinensis, Gossypium barbadense
41. Identify the order of economic importance of the plants: Hibiscus cannabinus, Withania somnifera, Euphorbia tirucalli and Smilax glabra.
1. Food yielding, Medicinal, Ornamental and fibre-yielding respectively
 2. Fibre-yielding, food yielding, ornamental and medicinal respectively
 3. food yielding, timber yielding, ornamental and medicinal respectively
 4. Ornamental, medicinal, timber yielding and fibre yielding respectively
42. Which one of the following is correct?
1. Epicalyx is made up of bracteoles.
 2. The calyx of Malvaceae shows twisted aestivation.
 3. The anthers of Malvaceae members are reniform and dithecos.
 4. The ovary of Althaea rosea has many carpels.
43. Loculicidal capsule is seen in
1. Datura metal
 2. Sida cordifolia
 3. Abelmoschus esculentus
 4. Abutilon indicum
44. Find out the correct statement.
1. Sida cordifolia contains schizocarp type of fruit.
 2. The epicalyx of Pavonia odorata has 5 - 8 bracteoles.
 3. Seeds are abortive in Gossypium barbadense.
 4. Phormium tenax is commonly known as Deccan hemp.
45. Which one of the following is correct?
1. Malva sylvestris is an annual herb of Malvaceae showing decumbent stem.
 2. Carolus Linnaeus is the author of Malva sylvestris.
 3. Malva rotundifolia shows aerial erect stem.
 4. Thespesia populnea has solitary terminal inflorescence.
46. Which of the following on the androecium of Hibiscus rosa-sinensis is are wrong?
1. (a) and (d)
 2. (a), (b) and (c)
 3. (b) only
 4. (a) and (b)
- a) The stamens are monotheccous and introrse.
 - b) All the filaments are fused to form a staminal tube which covers the stigma.
 - c) The staminal tube is fused with the petals at their bases.
 - d) The anthers are transversely attached to filaments and dehisces transversely.
47. Whooping cough can be cured by
- a) roots of Althaea rosea
 - b) roots of Malva sylvestris
 - c) roots and leaves of Abutilon indicum
 - d) leaves and flowers of Datura stramonium.
1. (b) only
 2. (c) and (d)
 3. (a) and (b)
 4. (b) and (d)
48. Bast fibres used for making ropes are obtained from
1. Hibiscus schizopetalus
 2. Gossypium hirsutum
 3. Hibiscus sabdariffa
 4. Hibiscus cannabinus
49. The gynoecium of Hibiscus rosa-sinensis is
1. pentacarpellary, syncarpous, pentalocular ovary with one ovule per locule on axile placentaiton.
 2. bicarpellary, syncarpous, bilocular ovary with many ovules per locule on axile placentaiton.
 3. pentacarpellary, syncarpous, unilocular ovary with many ovules per locule on axile placentaiton.
 4. pentacarpellary, syncarpous, pentalocular ovary with many ovules per locule on axile placentaiton.

50. Identify the wrong pair.

- Schizanthus pinnatus - 3 staminodes
- Male flowers of Ricinus communis - Pistillode
- Petunia hybrida - hairy stem
- Datura metal - multicostate reticulate venation

51. Find out the fibre yielding plants from the following.

- Hibiscus cannabinus, Gossypium barbadense, Phormium tenax, Smilax glabra
- Hibiscus sabdariffa, Gossypium herbaceum, Gossypium hirsutum, Smilax glabra
- Gossypium barbadense, Viretrum album, Phormium tenax, Hibiscus schizopetalus
- Gossypium hirsutum, Smilax glabra, Thespesia populnea, Phormium tenax

52. The family which shows great range of variation in vegetative as well as floral characters is

- Malvaceae
- Liliaceae
- Solanaceae
- Euphorbiaceae

53. The midrib and veins are found with yellowish spines in

- Solanum xanthocarpum
- Solanum torvum
- Solanum giganteum
- Euphorbia splendens

54. Match Part - A with Part - B and find out the correct answer.

Part - A

i) Solitary, Axillary cyme

ii) Terminal Panicle

iii) Helicoid cyme

iv) Umbellate cyme

Part - B

a) Ricinus communis

b) Datura metal

c) Malvastrum coromendelia

d) Solanum tuberosum

e) Withania somnifera

f) Acalypha indica

- i - c, ii - f, iii - e, iv - a
- i - b, ii - a, iii - d, iv - e
- i - b, ii - d, iii - a, iv - e
- i - c, ii - f, iii - e, iv - a

55. Identify the wrong pair.

- Thespesia populnea - Portia tree
- Withania somnifera - Ashwagandha
- Cestrum nocturnum - Day jasmine
- Hevea brasiliensis - Para rubber

56. Which one of the following plant resembles cactus?

- Jatropha curcas, Euphorbia tirucalli
- Euphorbia antiquorum, Euphorbia tirucalli
- Phyllanthus emblica, Euphorbia cyathophora
- Euphorbia pulcherrima, Acalypha indica

57. Find out the correct statement

- Panicle type of inflorescence is seen in Acalypha indica
- The leaves are modified into a pair of spines in E. splendens.
- The flowers are zygomorphic in schizanthus pinnatus
- Bell shaped persistent corolla is present in Datura metal.

58. Identify the correct pair.

- Phyllanthus amarus - gamophyllous
- Ricinus communis - epiphyllous
- male flowers of Euphorbia - aphyllous
- Allium cepa - polyphyllous

59. Find out the wrong statement.

- The female flowers of Euphorbia do not have a perianth.
- The male flowers of Croton sparsiflorus have two whorls of perianth.
- The female flowers of Croton sparsiflorus have a single whorl of perianth.
- Both male and female flowers of Ricinus communis have a single whorl of perianth with 5 petals.

60. The fruit which is covered by spinous outgrowths and splits into three one seeded cocci is

- spinescent capsule
- loculicidal capsule
- regma
- septicidal capsule

61. Bio-diesel is extracted from

- Jatropha gossypifolia
- Jatropha curcas
- Ricinus communis
- Glycine max

62. The roots and leaves of this plant are used in the treatment of leprosy

- Phyllanthus amarus
- Jatropha curcus
- Jatropha gossypifolia
- Ricinus communis

63. Match Part - A with Part - B and find out the correct answer.

Part - A

i) Croton of

gardens

ii) Milk bush

iii) goose-berry

iv) Manicoba

rubber

Part - B

a) Manihot esculenta

b) Hevea brasiliensis

c) Codiaeum variegatum

d) Phyllanthus emblica

e) Euphorbia tirucalli

f) Manihot glaziovii

- i - c, ii - e, iii - d, iv - a
- i - b, ii - e, iii - c, iv - a
- i - c, ii - e, iii - d, iv - f
- i - c, ii - d, iii - a, iv - f

64. The plants that contain Whorled phyllotaxy and Radical phyllotaxy are respectively
1. Paris quadrifolia, Dracaena angustifolia
 2. Aspharagus gonocladus and Allium cepa
 3. Paris quadrifolia and Allium cepa
 4. Smilax aspera and Allium sativum
65. Match Part - A with Part - B and find out the correct answer.
- | Part - A | Part - B |
|------------|--------------------------|
| i) Rhizome | a) Solanum tuberosum |
| ii) Bulb | b) Colchicum leuteum |
| iii) Tuber | c) Allium cepa |
| iv) Corm | d) Paris quadrifolia |
| | e) Dracaena angustifolia |
| | f) Asparagus gonocladus |
1. i - d, ii - c, iii - a, iv - e
 2. i - d, ii - c, iii - a, iv - b
 3. i - e, ii - c, iii - f, iv - e
 4. i - e, ii - b, iii - a, iv - d
66. One family has only unisexual flowers; the other family has only bisexual flowers; yet another family has both unisexual and bisexual flowers. They are respectively
1. Liliaceae, Euphorbiaceae and Solanaceae
 2. Euphorbiaceae, Malvaceae and Liliaceae
 3. Euphorbiaceae, Liliaceae and Malvaceae
 4. Liliaceae, Malvaceae and Solanaceae
67. When androecium matures well before the development of gynoecium, it is called
1. Protogynous
 2. Polyandrous
 3. Monandrous
 4. Protandrous
68. The gynoecium of Allium cepa is
1. Tricarpellary, syncarpous, trilocular, superior with one ovule in each locule on axile placentation
 2. Tricarpellary, syncarpous, trilocular, superior with two ovules in each locule on axile placentation
 3. Tricarpellary, syncarpous, trilocular, inferior with two ovules in each locule on axile placentation
 4. Bicarpellary, syncarpous, bilocular, superior with many ovules in each locule on axile placentation
69. The lacrymatory substance found in Allium cepa is
1. Atropine
 2. Allicin
 3. Anabaisne
 4. Colchicin
70. The plant that is used in the treatment of venereal diseases is /are
- a) Smilax ovalifolia
 - b) Smilax zeylanica
 - c) Smilax glabra
 - d) Asparagus racemosus
1. (a) and (b)
 2. (a), (b) and (c)
 3. (d) only
 4. (a) and (c)
71. One plant yields both fibre and food. Another plant yields both fibre and medicine. They are respectively
1. Hibiscus sabdariffa and Smilax glabra
 2. Hibiscus cannabinus and Smilax ovalifolia
 3. Gossypium barbadense and Hibiscus cannabinus
 4. Hibiscus cannabinus and Smilax glabra
72. Match Part - A with Part - B and find out the correct answer.
- | | |
|------------------------|-------------------------|
| i) African lily | a) Lilium candidum |
| ii) Malabar glory lily | b) Hibiscus cannabinus |
| iii) Lily | c) Phormium tenax |
| iv) Newzealand flax | d) Agapanthus africanus |
| | e) Gossypium barbadense |
| | f) Gloriosa superba |
1. i - d, ii - f, iii - a, iv - b
 2. i - d, ii - c, iii - b, iv - f
 3. i - d, ii - f, iii - a, iv - b
 4. i - f, ii - d, iii - c, iv - a
73. Find the characteristic feature of Liliaceae
1. The odd tepal of the outer whorl is posterior in position
 2. All the leaves are stipulate showing parallel venation
 3. Tepals 5, arranged in a single whorl showing valvate aestivation.
 4. The stamens are seen opposite to the tepals.
74. The floral formula of Allium cepa is
1. Br., Ebrl., \oplus , P_{3+3} , $\text{A}_{(3+3)}$, $\underline{\text{G}}_{(3)}$
 2. Br., Brl., $\%$, $\text{P}_{(3+3)}$, A_{3+3} , $\underline{\text{G}}_{(3)}$
 3. Br., Ebrl., \oplus , P_{3+3} , $\text{A}_{(3+3)}$, $\underline{\text{G}}_{(3)}$
 4. Br., Ebrl., \oplus , $\text{P}_{(3+3)}$, A_{3+3} , $\underline{\text{G}}_{(3)}$
75. The floral formula of female flower of Ricinus communis is
1. Br., Ebrl., \oplus , $\text{P}_{(5)}$, A_0 , $\underline{\text{G}}_{(3)}$
 2. Br., Brl., \oplus , $\text{P}_{(3)}$, A_∞ , $\underline{\text{G}}_{(3)}$
 3. Ebr., Brl., $\%$, P_3 , A_0 , $\underline{\text{G}}_{(3)}$
 4. Br., Ebrl., \oplus , $\text{P}_{(3)}$, A_0 , $\underline{\text{G}}_{(3)}$