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Choice Based Credit System (CBCS)

B.Sc. Part I: Subject: Botany

SEMESTER –II

BOTANY (PAPER-IV)

Plant Taxonomy

Q.1) MCQ

- 1) ICN stands for -----for algae, fungi and plants.
 - i) Indian code of Nomenclature
 - ii) International Committee of Nomenclature
 - iii) Integrated Course of Nature
 - iv) International code of Nomenclature
- 2) A duplicate specimen of holotype deposited by original author is known as -----.
 - i) Isotype
 - ii) Holotype
 - iii) Lectotype
 - iv) Syntype
- 3) The standard size of herbarium sheet is -----cm .
 - i) 32 x 20
 - ii) 42 x 29
 - iii) 40 x 22
 - iv) 54 x 30
- 4) The official acronym for any herbarium is given by-----.
 - i) Royal Botanical Garden
 - ii) Kew Garden
 - iii) Index Kewensis
 - iv) Index Herbariorum
- 5) Lead Botanical Garden at ----- is the only Lead Botanical Garden in Maharashtra)
 - i) Mumbai
 - ii) Shivaji University, Kolhapur
 - iii) Pune
 - iv) Nagpur
- 6) Bentham and Hooker's system of classification is one of ----- systems of classification.
 - i) phylogenetic
 - ii) evolutionary
 - iii) artificial
 - iv) natural
- 7) Double fertilization and triple fusion is the characteristic feature of -----
 - i) bryophytes
 - ii) gymnosperms
 - iii) pteridophytes
 - iv) angiosperms
- 8) Bentham and Hooker's system of plant classification was published in----- .
 - i) Genera Plantarum
 - ii) Flora Indica

- iii) Species Plantarum iv) Botanical Review
- 9) Legume or pod is the key character of family -----.
- i) Solanaceae ii) Liliaceae
- iii) Caesalpiniaceae iv) Nyctaginaceae
- 10) Persistent accrescent calyx on fruit is present in the members of family -----.
- i) Solanaceae ii) Liliaceae
- iii) Caesalpiniaceae iv) Nyctaginaceae
- 11) The term 'taxonomy' was first introduced by a French botanist ----- (1813).
- i) P. de Candolle ii) Carl Linnaeus
- iii) Robert Kyd iv) Robert Brown
- 12) The scientific names should always be----- when written.
- i) capital ii) underlined
- iii) bold iv) italic
- 13) ----- is used for poisoning of the herbarium sheet.
- i) Sulfuric acid ii) Nitric acid
- iii) Mercuric chloride iv) Mercuric oxide
- 14) ----- is known as the 'Garden city of India'.
- i) Kolkata ii) Mumbai
- iii) Chennai iv) Bangalore
- 15) Lead Botanical Garden at Shivaji University, Kolhapur was established under the guidance of ----- in 2007.
- i) Prof. S.R. Yadav ii) Prof. J.III) Bose
- iii) Prof. J.IV) Hooker iv) Prof. H. Y. Mohan Ram
- 16) Seeds are enclosed in the fruit wall, is the characteristic feature of -----.
- i) Gymnosperms ii) Angiosperms
- iii) Bryophytes iv) Pteridophytes
- 17) In angiosperms, endosperm is always -----.
- i) haploid ii) diploid
- iii) triploid iv) tetraploid
- 18) Monocarpellary superior ovary with marginal placentation is present in family-----.
- i) Solanaceae ii) Liliaceae

iii) Nyctaginaceae

iv) Caesalpiniaceae

19) In Bougainvillea spectabilis flowers are with conspicuous bright coloured -----.

i) bracts

ii) petals

iii) sepals

iv) tepals

20) Allium cepa and I) sativum belongs to family -----.

i) Solanaceae

ii) Liliaceae

iii) Caesalpiniaceae

iv) Nyctaginaceae

21) Binomial Nomenclature system was given by -----.

i) Carl Linnaeus

ii) I P. de Candolle

iii) Robert Kyd

iv) Robert Brown

22) The nomenclature of a taxonomic group is based upon priority of -----.

i) herbarium

ii) publication

iii) identification

iv) collection

23) Acronym ----- is used for herbarium of Royal Botanical Garden, Kew, United Kingdom.

i) RBK

ii) RBGK

iii) K

iv) KUK

24) A collection of preserved plant specimens that associated with scientific data is known as -----.

i) ecological note

ii) specimen

iii) field note

iv) Herbarium sheet

25) The section with large trees cultivated in the garden is called as -----.

i) Arboretum

ii) Fernery

iii) Orchidarium

iv) Pinetum

26) Porous wood is the characteristic feature of -----.

i) Gymnosperms

ii) Angiosperms

iii) Bryophytes

iv) Pteridophytes

27) In the life cycle of angiosperms, ----- phase is dominant.

i) gametophytic

ii) heterophytic

iii) sporophytic

iv) Saprophytic

- 28) Bicarpellary superior ovary with axile placentation is present in family ----- .
- | | |
|--------------------|----------------|
| i) Caesalpiniaceae | ii) Liliaceae |
| iii) Nyctaginaceae | iv) Solanaceae |
- 29) In Caesalpiniaceae the fruit is -----.
- | | |
|------------------|-----------|
| i) legume or pod | ii) drupe |
| iii) capsule | iv) berry |
- 30) *Atropa belladonna* and *Withania somnifera* belongs to family -----.
- | | |
|----------------------|-------------------|
| i) Liliaceae | ii) Solanaceae |
| iii) Caesalpiniaceae | iv) Nyctaginaceae |
- 31) ----- proposed the natural system of classification.
- | | |
|-------------------------|---------------------|
| i) Carolus Linnaeus | ii) John Hutchinson |
| iii) Bentham and Hooker | iv) Oswald Tippo |
- 32) Stigma, Style and ovary are the part of -----
- | | |
|--------------|--------------|
| i) sepals | ii) petals |
| iii) stamens | iv) carpels. |
- 33) All --- names begin with capital letter.
- | | |
|-------------------|-------------|
| i) Species | ii) Generic |
| iii) Sub –species | iv) Variety |
- 34) Class dicotyledons is classified into ----- sub classes.
- | | |
|------------|-----------|
| i) One | ii) Two |
| iii) Three | iv) Four. |
- 35) In ----- flower ovary is superior.
- | | |
|-----------------|-----------------|
| i) Perigynous | ii) Epigynous |
| iii) Hypogynous | iv) Polygynous. |
- 36) In ----- placentation ovule is developing from the base of ovary.
- | | |
|---------------|--------------|
| i) Axile | ii) Basal |
| iii) Marginal | iv) Parietal |
- 37) Arrangement of sepals and petals with respect to each other in floral bud is called as --

- i) Vernation
ii) Venation
iii) Aestivation
iv) Placentation
- 38) When stamens are attached to corolla is called as -----
i) Episepalous
ii) Epipetalous
iii) Epiphyllous
iv) None of these.
- 39) In monocots mostly flowers are -----.
i) Trimerous
ii) Tetramerous
iii) Pentamerous
iv) Polymerous.
- 40) ----- type of inflorescences is present in the members of family Caesalpiniaceae.
i) Racemose
ii) Capitulum
iii) Cymose
iv) Solitary
- 41) ----- type of inflorescences is present in the members of family Solanaceae.
i) Racemose
ii) Capitulum
iii) Cymose or Solitary
iv) Umbel
- 42) *Senna tora* is the member of family -----.
i) Caesalpiniaceae
ii) Solanaceae
iii) Nyctaginaceae
iv) Liliaceae
- 43) *Piliostigma racemosum* is the member of family -----.
i) Caesalpiniaceae
ii) Solanaceae
iii) Nyctaginaceae
iv) Liliaceae
- 44) *Withania somnifera* is the member of family -----.
i) Caesalpiniaceae
ii) Solanaceae
iii) Nyctaginaceae
iv) Liliaceae
- 45) *Mirabilis jalapa* is the member of family -----.
i) Caesalpiniaceae
ii) Solanaceae
iii) Nyctaginaceae
iv) Liliaceae
- 46) *Chlorophytum borivilianum* is the member of family -----.
i) Caesalpiniaceae
ii) Solanaceae
iii) Nyctaginaceae
iv) Liliaceae
- 47) In *Bougainvillea spectabilis* flowers are with bright coloured -----

- | | |
|-------------|-------------|
| i) sepals | ii) petals |
| iii) bracts | iv) stamens |
- 48) In the life cycle of Angiosperms ----- phase is dominant.
- | | |
|-------------------|------------------|
| i) sporophytic | ii) gametophytic |
| iii) heterophytic | iv) saprophytic |
- 49) When petals are free from each other then corolla is referred as -----.
- | | |
|---------------------|------------------|
| i) polypetalous | ii) gamopetalous |
| iii) monochlamydous | iv) apetalous |
- 50) *Aloe vera* is the member of family -----.
- | | |
|--------------------|----------------|
| i) Caesalpinaceae | ii) Solanaceae |
| iii) Nyctaginaceae | iv) Liliaceae |

Q.2) BROAD QUESTIONS

- 1) What is Taxonomy? Give importance and functions of taxonomy.
- 2) Draw the outline of Bentham and Hooker's system of classification of Angiosperms.
Add a note on its merits and demerits.
- 3) Give vegetative and floral characters of family Caesalpinaceae.
- 4) What is nomenclature? Give important Principles of nomenclature.
- 5) Give salient features of angiosperms.
- 6) Give vegetative and floral characters of family Solanaceae
- 7) What is nomenclature? Give important rules and recommendations of nomenclature.
- 8) What is herbarium? Discuss method of preparation of herbarium sheet.
- 9) Give vegetative and floral characters of family Nyctaginaceae
- 10) Give vegetative and floral characters of family Liliaceae.
- 11) Discuss in detail the Lead Botanical Garden Shivaji University, Kolhapur.
- 12) Give salient features of Sir J.C. Bose Botanical Garden.
- 13) What is classification? Discuss different types of classification.
- 14) What is classification? Discuss different units of classification.
- 15) Discuss floral characters and draw floral diagram of family Caesalpinaceae.

Q.3) SHORT NOTES

- 1) Importance of Taxonomy.

- 2) Units of Classification.
- 3) Acronym of Herbarium.
- 4) Sir J. C. Bose Botanical Garden, Kolkata)
- 5) Salient features of Angiosperms.
- 6) Units of Classification.
- 7) Binomial Nomenclature.
- 8) Principles of Nomenclature.
- 9) Preparation of Herbarium.
- 10) Role and significance of Botanical Gardens.
- 11) Functions of Taxonomy.
- 12) Economic Importance of family Solanaceae.
- 13) Fernery.
- 14) Principles of ICN.
- 15) Economic Importance of family Liliaceae.
- 16) Merits of Bentham and Hooker's system of classification.
- 17) Phylogenetic system of Classification.
- 18) Economic Importance of family Caesalpiniaceae.
- 19) Demerits of Bentham and Hooker's system of classification.
- 20) Diagnostic features of family Liliaceae.
- 21) Economic importance of family Nyctaginaceae.
- 22) Diagnostic features of family Caesalpiniaceae.
- 23) Diagnostic features of family Solanaceae.
- 24) Diagnostic features of family Nyctaginaceae.
- 25) Floral formula and floral diagram of Liliaceae.