

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE ASKED TO DO SO

TEST BOOKLET

Sl. No. -

01460

Subject Code : 03

Subject : Botany

LECTURERS FOR NON-GOVT. AIDED COLLEGES OF ODISHA

Time Allowed : 3 Hours

Maximum Marks : 165

: INSTRUCTIONS TO CANDIDATES :

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET CONTAINS 24 PAGES AND DOES NOT HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
2. You have to enter your **Roll No.** on the Test Booklet in the Box provided alongside. **DO NOT** write anything else on the Test Booklet.

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3. The Test Booklet contains **165** questions. Each question comprises four answers. You have to select the correct answer which you want to mark (darken) on the Answer Sheet. In case, you feel that there is more than one correct answer, you should mark (darken) the answer which you consider the best. In any case choose **ONLY ONE** answer for each question. If more than one answer is darkened it will be considered as wrong.
4. You have to mark (darken) all your answers **ONLY** on the **separate OMR Answer Sheet** provided, by using **BLACK BALL POINT PEN**. You have to do rough work on the space provided in the Test Booklet only. See instruction in the Answer Sheet.
5. All questions carry equal marks, i.e. of one mark for each correct answer and each wrong answer will result in negative marking of **0.25** mark.
6. Before you proceed to mark (darken) in the Answer Sheet the answers to various questions in the Test Booklet, you have to fill in some particulars in the Answer Sheet as per the instructions in your Admit Card.
7. After you have completed filling in all your answers on the Answer Sheet and after completion of the examination, you should hand over to the Invigilator the **Original Answer Sheet (OMR Answer Sheet)** issued to you. You are allowed to take with you the candidate's copy/second page of the Answer Sheet along with the Test Booklet after completion of the examination for your reference.

Candidate's full signature

Invigilator's signature

RS - 21/25

(Turn over)

SEAL

2018

1. Members of Thallophyta do not have the following character :
 - (A) Plant body is not differentiated into root, leaf and stem
 - (B) Zygote generally develop into a multicellular embryo
 - (C) Reproduction occurs through vegetative, sexual and asexual means
 - (D) Reproductive organs are mostly unicellular

2. Aplanogametes are characterized by their :
 - (A) Having flagella
 - (B) Different size
 - (C) Non-motility
 - (D) Involvement in asexual reproduction

3. Floridian starch is the storage carbohydrate in :
 - (A) Phaeophyceae
 - (B) Rhodophyceae
 - (C) Charophyceare
 - (D) Cyanophyceae

4. Pyrenoids are specialized bodies made up of :
 - (A) Protein surrounded by starch plates
 - (B) Starch plates surrounded by Protein
 - (C) Protein sorrounded by lipid granules
 - (D) Lipid granules surrounded by starch plates

5. The type of lifecycle found in **Polysiphonia** is :
 - (A) Haplobiontic
 - (B) Diplohaplontic
 - (C) Diplontic
 - (D) Haplodiplobiontic

6. Thallus organization in **Chlamydomonas** is of :
 - (A) Palmelloid type
 - (B) Dendroid type
 - (C) Siphonaceous type
 - (D) Heterotrichous type

7. Japanese food 'Kombu' is prepared from :
 - (A) **Caulerpa**
 - (B) **Ulva**
 - (C) **Porphyra**
 - (D) **Laminaria**

8. Chantransia stage is found in :
 - (A) **Batrachospermum**
 - (B) **Polysiphonia**
 - (C) **Oedogonium**
 - (D) **Fucus**

9. Which of the following is not a character of Fungi ?
- (A) Devoid of Chlorophyll
(B) Heterotrophic
(C) Prokaryotic
(D) Cell wall made up of chitin
10. Hyphal modification that resembles that of a root tip is called :
- (A) Plectenchyma
(B) Sclerotia
(C) Stroma
(D) Rhizomorph
11. During sexual reproduction in fungi dikaryon formation occurs :
- (A) Before plasmogamy
(B) After plasmogamy
(C) During karyogamy
(D) After karyogamy
12. 'Ergots' used as a source of medicine contain a number of :
- (A) Alkaloids
(B) Organic acids
(C) Phenolics
(D) Amino acids
13. Which one of the following is considered as a form-class of Fungi ?
- (A) Phycomycetes
(B) Ascomycetes
(C) Basidiomycetes
(D) Deuteromycetes
14. Gametangium often develop directly into a thick-walled structure called :
- (A) Zygosporangium
(B) Azygosporangium
(C) Planospore
(D) Oospore
15. **Aspergillus** produces a highly toxic substance known as :
- (A) Aflatoxin
(B) Phylotoxin
(C) Amanitine
(D) Phytoalexin
16. In **Puccinia** which spore form is not produced in definite sori ?
- (A) Pycniospore
(B) Aeciospores
(C) Teleutospore
(D) Basidiospore
17. Griseofulvin produced by a species of **Penicillium** is :
- (A) Antibacterial
(B) Antifungal
(C) Antiviral
(D) Antiprotozoan

18. Causal organism for the disease 'Late blight of potato' is :
- (A) **Alternaria solani**
 (B) **Pythium debaryanum**
 (C) **Fusarium udum**
 (D) **Phytophthora infestans**
19. Citrus canker is a disease caused by
- (A) Virus
 (B) Bacteria
 (C) Fungi
 (D) Insect
20. When a fungal pathogen produces different spore forms on different hosts, it is called :
- (A) Macrocytic
 (B) Heteroecious
 (C) Polymorphic
 (D) Dioecious
21. Double stranded RNA is found in :
- (A) Polio virus
 (B) TMV
 (C) Herpes virus
 (D) Reovirus
22. Which of the following is not true regarding capsid of viruses ?
- (A) It is made up of lipo-protein
 (B) It protects nucleic acid from adverse environmental conditions
 (C) It facilitates nucleic acid entry into host cells
 (D) It helps in synthesis of nucleic acid and proteins during growth cycle in host cells
23. In case of T-even phages the number of tail fibers usually is :
- (A) 4
 (B) 6
 (C) 8
 (D) 10
24. When viral genome of a phage integrates with bacterial genome, it is called :
- (A) Prophage
 (B) Prephage
 (C) Temperate phage
 (D) Lytic phage
25. Example of non-enveloped virus is :
- (A) Influenza virus
 (B) Herpes virus
 (C) Pox virus
 (D) Adenoviruses

26. Group of bacteria having resemblance with fungus is :
- (A) Myxobacteria
(B) Actinomycetes
(C) Chlamydobacteria
(D) Cyanobacteria
27. Which of the following bacteria is not water borne ?
- (A) **Salmonella typhosa**
(B) **Vibrio comma**
(C) **Shigella dysenterica**
(D) **Streptococcus laciis**
28. Example of chemosynthetic bacteria is :
- (A) **Rhodospirillum**
(B) **Clostridium**
(C) **Chlorobium**
(D) **Rhodopseudomonas**
29. The small circular bacterial DNA that attach to the chromosomes are called :
- (A) Plasmids
(B) Desmids
(C) Cosmids
(D) Episomes
30. Bacterial cells divide steadily at a constant rate at :
- (A) Acceleration phase
(B) Exponential phase
(C) Deceleration phase
(D) Stationary phase
31. Cyanophycean algae are considered as bacteria because :
- (A) Sexual reproduction is lacking
(B) Motile gametes are absent
(C) True nucleus is absent
(D) Filamentous plant body
32. Which of the following occurs as endophyte within the thallus of liverworts ?
- (A) **Oscillatoria**
(B) **Nostoc**
(C) **Spirullina**
(D) **Anabaena**
33. Heterocysts found in cyanobacteria are functionally associated with :
- (A) Reproduction
(B) Movement
(C) Sensing environment
(D) Nitrogen metabolism

34. Regarding characterization of bryophytes which of the following is not true ?
- (A) Heteromorphic alternation of generations
 - (B) Gametophyte is dependent on sporophyte
 - (C) True roots are absent
 - (D) Sexual reproduction is oogamous
35. In case of Hepatics :
- (A) Sporogenous tissue derives from amphithecium
 - (B) Sporogenous tissue derives from endothecium
 - (C) Sporogenous tissue derives either from amphithecium or from endothecium
 - (D) Sporogenous tissue derives neither from amphithecium nor from endothecium
36. Characteristically bryophytes belong to :
- (A) Archegoniatae
 - (B) Tracheophyta
 - (C) Embryophyta
 - (D) Spermatophyte
37. That Bryophytes have originated directly from **Chara** has been postulated by :
- (A) Church
 - (B) Campbell
 - (C) Frye and Clark
 - (D) Smith
38. Sporophyte is devoid of foot and seta in :
- (A) **Riccia**
 - (B) **Marchantia**
 - (C) **Anthoceros**
 - (D) **Sphagnum**
39. Which of the following is not true for considering **Anthoceros** sporophyte as advance ?
- (A) Beginning of independence of sporophyte
 - (B) Development of localized sporangia
 - (C) Development of columella
 - (D) Fully fertile sporogenous tissue
40. Which is not a common name of **Sphagnum** ?
- (A) Bog moss
 - (B) Rock moss
 - (C) Peat moss
 - (D) Turf moss

41. Elaters found in the **Marchantia** capsule play a role in :
- (A) Protection of spores
 - (B) Scattering of spores
 - (C) Formation of spores
 - (D) Nutrition of spores
42. Mature sporophyte is completely embedded within the gametophyte in :
- (A) **Riccia**
 - (B) **Marchantia**
 - (C) **Anthoceros**
 - (D) **Sphagnum**
43. In case of **Marchantia** gemmae formation is related to :
- (A) Sexual reproduction
 - (B) Asexual reproduction
 - (C) Vegetative production
 - (D) Sporophyte formation
44. Gametophytic thallus of **Anthoceros** inhabit endophytic colonies of :
- (A) **Anabaena**
 - (B) **Oscillatoria**
 - (C) **Gleocapsa**
 - (D) **Nostoc**
45. Regarding Pteridophytes which of the following is not true? (8)
- (A) Plant body differentiated into root, stem and leaf
 - (B) Stems and roots have apical growth
 - (C) Roots can grow indefinitely
 - (D) No conducting tissues are present
46. Rootless sporophyte with branches having sporangia borne singly at the tips is a characteristic feature of the division :
- (A) **Psilophyta**
 - (B) Lepidophyta
 - (C) Calamophyta
 - (D) Pterophyta
47. Fritsch (1945) proposed the origin of pteridophytes from :
- (A) Chactophoraceous type of filamentous green algae
 - (B) Brown algae
 - (C) Not any particular section of algae
 - (D) Thallose bryophyte
48. Telome theory regarding evolution of vascular plants was proposed by :
- (A) Bower
 - (B) Lignier
 - (C) Zimmermann
 - (D) Campbell

49. Which of the following are only two living members of the division Psilophyta ?
- Rhynia and Psilotum
 - Psilotum and Tmesipteris
 - Tmesipteris and Psilophyton
 - Psilophyton and Psilotum
50. Club moss is a common name of :
- Lycopodium
 - Selaginella
 - Equisetum
 - Marsilea
51. Within sporangial jacket sporogenous tissue is surrounded by a nutritive layer known as :
- Perisperm
 - Endosperm
 - Tapetum
 - Tigellum
52. In **Isoetes** fertile cells of sporogenous tissue are separated by plates of sterile cells called :
- Tuberculae
 - Trabeculae
 - Velum
 - Prismatic layer
53. Incipient heterospory is found in the genus :
- Lycopodium
 - Selaginella
 - Equisetum
 - Marsilea
54. Stem of **Marsilea** is characterized by :
- Protostele
 - Plectostele
 - Actinostele
 - Amphipholic siphonostele
55. **Equisetum** is commonly known as :
- Fishtail
 - Birdtail
 - Horsetail
 - Ponytail
56. In Gymnospermae tracheae are absent except in :
- Gnetum
 - Cycas
 - Pinus
 - Ginkgo
57. Chilgoza is the common name of :
- Pinus roxburghii
 - Pinus insularis
 - Pinus gerardiana
 - Pinus succinifera

58. Coralloid roots of **Cycas** harbour the species of :
- (A) **Nostoc**
 (B) **Anabaena**
 (C) **Oscillatoria**
 (D) **Gleocapsa**
59. Some phloem parenchyma cells known as albuminous cells are present in the leaves of :
- (A) **Gnetum**
 (B) **Cycas**
 (C) **Pinus**
 (D) **Ginkgo**
60. Which of the following character is not resembling with ferns ?
- (A) Circinate vernation of leaflets
 (B) Presence of archegonia in female gametophyte
 (C) Absence of true vessels
 (D) Formation of seeds
61. Perisperm, a layer nutritive tissue, is remnant of :
- (A) Endosperm
 (B) Nucellus
 (C) Seed coat
 (D) Suspensor
62. Majority of **Gnetum** species are :
- (A) Herbs
 (B) Shrubs
 (C) Trees
 (D) Woody climbers
63. The cells of endosperm in case of Gymnosperms are :
- (A) Haploid
 (B) Diploid
 (C) Triploid
 (D) Tetraploid
64. The leaf lamina of the form genus **Lyginopteris** is named as :
- (A) **Sphenopteris**
 (B) **Rachiopteris**
 (C) **Kaloxylon**
 (D) **Lagenostoma**
65. Inflorescence of Cycadeoidea resembles the flower of :
- (A) **Michelia**
 (B) **Magnolia**
 (C) **Malus**
 (D) **Annona**
66. Plant fossils having both external form and internal structure preserved are known as :
- (A) Petrification
 (B) Impression
 (C) Compression
 (D) Incrustation