

### **BIOLOGY**

# BOOKS - NEET PREVIOUS YEAR (YEARWISE + CHAPTERWISE)

### PLANT KINGDOM



1. Zygotic meiosis is characteristic of

B. Fucus		
C. Funaria		
D. Chlamydomonas		
Answer: D		
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2. An example of colonial alga is		
A. Chlorella		

A. Marchantia

- B. Volvox
- C. Ulothrix
- D. Spirogyra

#### **Answer: B**



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**3.** Life cycle of Ectocarpus and Fucus respectively are

A. Haplontic, Diplontic

- B. Diplontic, Haplodiplontic
- C. Haplodiplontic, Diplontic
- D. Haplodiplontic, Haplontic



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**4.** In bryophytes and pteridophytes, transport of male gametes requires

A. insects

- B. birds
- C. water
- D. wind



- **5.** Select the correct statement.
  - A. Salvinia, Ginkgo and Pinus all are gymnosperms

- B. Sequoia is one of the tallest trees
- C. The leaves of gymnosperms are not well adapted to extremes of climate
- D. Gymnosperms are both homosporous and heterosporous

#### Answer: B



**6.** Conifers are adapted to tolerate extreme environmental conditions because of

A. broad hardy leaves

B. superficial stomata

C. thick cuticle

D. the presence of vessels

#### **Answer: C**



- **7.** Which one of the following statements is wrong?
  - A. Algae increase the level of dissolved oxygen in the immediate environment
  - B. Algin is obtained from red algae and carrageenan from brown algae
  - C. Agar-agar is obtained from Gelidium and
    Gracilaria
  - D. Laminaria and Saragassum are used as food

#### **Answer: B**



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- 8. Which one is a wrong statement?
  - A. Archegonia are found in Bryophyta,

Pteridophyta and Gymnosperms

- B. Mucor has biflagellate zoospores
- C. Haploid endosperm is typical feature of

gymnosperms

D. Brown algae have chlorophyll-a and c, and fucoxanthin

**Answer: B** 



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**9.** Which one of the following shows isogamy with non-flagellated gametes?

A. Sargassum

B. Ectocarpus

C. Ulothrix

D. Spirogyra

**Answer: D** 



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**10.** Which one of the following is wrong about Chara?

A. Upper oogonium and lower round

antheridium

- B. Globule and nucule present on the same plant
- C. Upper antheridium and lower oogonium
- D. Globule is male reproductive structure



**11.** Which of the following is responsible for peat formation?

- A. Marchantia
- B. Riccia
- C. Funaria
- D. Sphagnum



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**12.** An alga which can be employed as food for human being is

- A. Ulothrix
- B. Chlorella
- C. Spirogyra
- D. Polysiphonia

#### **Answer: B**



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**13.** Male gametophyte with least number off cells is presentt in

- A. Pteris
- B. Funaria
- C. Lilium
- D. Pinus



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**14.** Besides paddy fields, cyanobacteria are also found inside vegetative part of

- A. Pinus
- B. Cycas
- C. Equisetum
- D. Psilotum

#### **Answer: B**



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**15.** Select the wrong statement.

- A. Isogametes are similar in structure, function and behaviour
- B. Anisogametes differ either in structure, function and behaviour
- C. In oomycetes female gamete is smaller and motile, while male gamete is larger and non-motile
- D. Chlamydomonas exhibits both isogamy and anisogamy and Fucus shows oogamy



16. Read the following statements and answer the question which follows them I. In liverworts, mosses and ferns gametophytes are free living. II. Gymnosperms and some ferns are heterosporous. III. Sexual reproduction in Fucus, Volvox and Albugo is oogamous. IV. The sporophyte in liverworts is

more elaborate than that in mosses. How many of the above statements are correct? A. One

- B. Two
- C. Three
- D. Four

#### **Answer: C**



**17.** Cycas and Adiantum resemble each other in having

A. seeds

B. motile sperms

C. cambium

D. vessels

**Answer: B** 



- **18.** Which one of following is a correct statement?
  - A. Pteridophyte gametophyte has a protonemal and leafy stage
  - B. In gymnosperms female gametophyte is free-living
  - C. Antheridiophores and archegoniophores are present in pteridophytes
  - D. Origin of seed habit can be traced in pteridophytes



- **19.** Which one of the following is common to multicellular fungi, filamentous algae and protonema of mosses?
  - A. Diplontic life cycle
  - B. Members of kingdom-Plantae
  - C. Mode of nutrition
  - D. Multiplication by fragmentation



**20.** Gymnosperms are also called soft wood spermatophytes because they lack

- A. cambium
- B. phloem fibres
- C. thick-walled tracheids
- D. xylem fibres



- **21.** Compared with the gametophytes of the bryophytes, the gametophytes of vascular plants tends to be
  - A. larger but to have smaller sex organs
  - B. larger and to have large sex organs
  - C. smaller and to have smaller sex organs
  - D. smaller but to have larger sex organs



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**22.** The gametophyte is not an independent, free living generation in

- A. Adiantum
- B. Marchantia
- C. Pinus
- D. Polytrichum



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### 23. Archegoniophore is present in

A. Chara

B. Adiantum

C. Funaria

D. Marchantia

**Answer: D** 

**24.** A prokaryotic autotrophic nitrogen fixing symbiont is found in

A. Cycas

B. Cicer

C. Pisum

D. Alnus

Answer: A



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25. Algae have cell wall made up of

A. cellulose, galactans and mannans

B. hemicellulose, pectins and proteins

C. pectins, cellulose and proteins

D. cellulose, hemicellulose and pectins

Answer: A



**26.** Male and female gametophytes are independent and free-living in

- A. mustard
- B. castor
- C. pinus
- D. Sphagnum

**Answer: D** 



<b>27.</b> Mannitol	is the sto	red food	in

A. Chara

B. Porphyra

C. Fucus

D. Gracilaria

### Answer: C



**28.** Which one of the following is a vascular cryptogam?

- A. Equisetum
- B. Ginkgo
- C. Marchantia
- D. Cedrus

**Answer: A** 



**29.** Which one of the following is considered important in the development of seed habit?

- A. Dependent sporophyte
- B. Heterospory
- C. Haplontic life cycle
- D. Free-living gametophyte

#### **Answer: B**



**30.** Which one of the following plants is monoecious?

- A. Marchantia
- B. Pinus
- C. Cycas
- D. Papaya

**Answer: B** 



**31.** In which one of the following, male and female gametophytes don't have free living independent existence?

- A. Pteris
- B. Funaria
- C. Polytrichum
- D. Cedrus

**Answer: A** 



**32.** Which one of the following is heterosporous?

- A. Dryopteris
- B. Salvinia
- C. Adiantum
- D. Equisetum

**Answer: B** 



33. Replum is present in the ovary of flower of

A. lemon

B. mustard

C. sunflower

D. pea

**Answer: B** 



**34.** Select one of the following pairs of important features distinguishing Gnetum from Cycas and Pinus and showing affinities with angiosperms

- A. absence of resin duct and leaf venation
- B. presence of vessel elements and absence
  - of archegonia
- C. perianth and two integuments
- D. embryo development and apical

meristem

### **Answer: B**



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**35.** In the prothallus of avascular cryptogam, the antherozoids and egs mature at different times, as a result

A. there is no change in success rate of fertilisation

B. there is high degree of sterility

C. one can conclude that the plant is apomictic

D. self fertilisation is prevented

**Answer: D** 



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**36.** Spore dissemination in some liverworts is aided by

A. elaters

- B. indusium
- C. calyptra
- D. peristome teeth

### **Answer: A**



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**37.** If you are asked to classify the various algae into distinct groups, which of the following characters you should choose?

- A. Types of pigments present in the cell
- B. Nature of stored food materials in the cell
- C. Structural organisation of thallus
- D. Chemical composition of the cell wall

## Answer: A



**38.** Flagellated male gametes are present in all the three of which one of the following sets?

- A. Anthoceros, Funaria and Spirogyra
- B. Zygnema, Saprolegnia and Hydrilla
- C. Fucus, Marselia and Calotropis
- D. Riccia, Dryopteris and Cycas

### **Answer: D**



- **39.** In gymnosperms, the pollen chamber represents
  - A. a cell in the pollen grain in which the sperms are formed
  - B. a cavity in the ovule in which pollen grains are stored after pollination
  - C. an opening in the megagametophyte through which the pollen tube approaches the egg

D. the microsporangium in which pollen grains develop

**Answer: B** 



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**40.** Peat moss is used as a packing material for sending flowers and live plants to distant places because

A. it is hygroscopic

- B. it reduces transpiration
- C. it serves as a disinfectant
- D. it is easily available

### **Answer: A**



- **41.** Conifers differ from grasses in the
  - A. lack of xylem tracheids
  - B. absence of pollen tubes

C. formation of endosperm before

fertilisation

D. production of seeds from ovules

## **Answer: C**



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**42.** Ectophloic siphonostele is found in

A. Adiantum and Cucurbitaceae

B. Osmunda and Equisetum

- C. Marsilea and Botrychium
- D. Dicksonia and maiden hair fern

**Answer: B** 



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**43.** Match itemsin column I with those in column II.

	Column I		Column II	
A.	Peritrichous flagellation	1	Ginkgo	
B.	Living fossil	2.	Macrocystis	
$\mathbf{C}'$	Rhizophore	<b>3</b> .	Eschenchia Cole	
D.	Smallest flowering plant	4.	Selaginella	
E.	Largest perennial alga	5.	Wolffia	

Select the correct answer from the following:-

## **Answer: A**



**44.** Which of the following propagates through leaf-tip?

A. Walking fern

B. Sproux-leaf plant

C. Marchantia

D. Moss

**Answer: A** 



**45.** Which one of the following is a living fossil?

A. Cycas

B. Moss

C. Saccharomyces

D. Spirogyra

**Answer: A** 



**46.** A free living nitrogen fixing cyanobacterium which can also form symbiotic association with the water fern Azolla is

- A. Tolypothrix
- B. Chlorella
- C. Nostoc
- D. Anabaena

**Answer: D** 



**47.** Angiosperms have dominated the land flora primarily because of their

A. power of adaptability in diverse habitat

B. property of producing large number of seeds

C. nature of some pollination

D. domestication by man

**Answer: A** 



**48.** Which one the following pairs of plants are not seed producers?

- A. Ficus and Chlamydomonas
- B. Punica and Pinus
- C. Fern and Funaria
- D. Funaria and Ficus

**Answer: C** 



**49.** Which one pair of examples will correctly represent the grouping spermatophyta according to one of the schemes of classifying plants?

- A. Rhizopus, Triticum
- B. Ginkgo, Pisum
- C. Acacia, sugarcane
- D. Pinus, Cycas

## **Answer: B**



**50.** Sexual reproduction in Spirogyra is an advanced feature because it shows

A. physiologically differentiated sex organs

B. different size of motile sex organs

C. same size of motile sex organs

D. morphologically different sex organs

**Answer: A** 



**51.** Which of the following is without exception in angiosperms?

- A. Presence of vessels
- B. Double fertilisation
- C. Secondary growth
- D. Autotrophic nutrition

**Answer: B** 



**52.** Which of the following plants produces seeds but not flowers?

A. Maize

B. Mint

C. Peepal

D. Pinus

**Answer: D** 



**53.** Cycas has two cotyledons but not included in angiosperms because of

- A. naked ovules
- B. seems like monocot
- C. circinate ptyxis
- D. compound leaves

**Answer: A** 



**54.** A research student collected certain alga and found that its cells contained both chlorophyll-a,b,c and chlorophyll-d as well as phycoerythrin. The alga belongs to

- A. Rhodophyceae
- B. Bacillariophyceae
- C. Chlorophyceae
- D. Phaeophyceae

# **Answer: A**



# 55. In ferns meiosis occurs when

- A. spore germinates
- B. gametes are formed
- C. spores are formed
- D. antheridia and archegonia are formed

### **Answer: C**



**56.** The largest ovules, largest male and female gametes and largest plants are found among

- A. angiosperms
- B. tree ferns and some monocots
- C. gymnosperms
- D. dicotyledonous plants

**Answer: C** 



**57.** Columella is a specialised structure found in the sporangium of

- A. Ulothrix
- B. Rhizopus
- C. Spirogyra
- D. None of these

**Answer: B** 



# 58. The antherozoids of Funaria are

- A. aciliated
- B. biflagellated
- C. multiciliated
- D. monociliated

### **Answer: B**



# 59. Dichotomous branching is found in

- A. fern
- B. Funaria
- C. liverwortts
- D. Marchantia

### **Answer: D**



# **60.** Bryophytes comprise

A. sporophyte of longer duration

B. dominant phase of sporophyte which is parasitic

C. dominant phase of gametophyte which produces spores

D. small sporophyte phase generally parasitic on gametophyte

Answer: D

**61.** Which of the following is true about bryophytes?

A. They possess archegonia

B. They contain chloroplast

C. They are thalloid

D. All of the above

**Answer: D** 



**62.** In which of the following would you place the plants having vascular tissue, lacking seeds?

A. Algae

B. Bryophytes

C. Pteridophytes

D. Gymnosperms

**Answer: C** 

63. Largest sperms in the plant world are found in

A. Pinus

B. Banyan

C. Cycas

D. Tsuja

**Answer: C** 



**64.** Bryophytes are dependent on water because

A. water is essential for fertilisation for their homosporous nature

- B. water is essential for their vegetative propagation
- C. the sperms can easily reach up to egg in the archegonium

D. archegonium has to remain filled with water for fertilisation

**Answer: C** 



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**65.** Which one of the following statements about Cycas is incorrect?

A. It does not have a well organised female flower

B. It has circinate vernation

C. Its xylem is mainly composed of xylem vessels

D. Its roots contain some blue-green algae

**Answer: C** 



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66. Ulothrix can be described as a

- A. non-motile colonial alga lacking zoospores
- B. filamentous alga lacking flagellatted reproductive stages
- C. membranous alga producing zoospores
- D. filamentous alga with flagellated reproductive stages

## **Answer: D**



### **67.** The 'walking fern' is so named because

A. it is dispersed through the agency of walking animals

- B. it propagates vegetatively by its leaf tips
- C. it knows how to walk by itself
- D. its spores are able to walk

#### **Answer: B**



68. Ulothrix filaments p	produce
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- A. isogametes
- B. anisogametes
- C. heterogametes
- D. basidiospores

**Answer: A** 



**69.** Brown algae is characterised by th presence of

- A. phycocyanin
- B. phycoerythrin
- C. fucoxanthin
- D. haematochrome

**Answer: C** 



<b>70.</b> An a	lga very	rich in	protein	is
	0			

- A. Spirogyra
- B. Ulothrix
- C. Oscillatoria
- D. Chlorella

### **Answer: D**



**71.** Bryophytes can be separated from algae because they

A. are thalloid forms

B. have no conducting tissue

C. possess archegonia with outer layer of sterile cells

D. contain chloroplasts in their cells

**Answer: C** 



**72.** Multicellular branched rhizoids and leafy gametophytes are characteristics of

A. all bryophytes

B. some bryophytes

C. all pteridophytes

D. some pteridophytes

#### **Answer: B**



### 73. Blue-green algae belong to

- A. eukaryotes
- B. prokaryotes
- C. Rhodophyceae
- D. Chlorophyceae

#### **Answer: B**



### 74. Seed habit first originated in

- A. certain ferns
- B. certain pines
- C. certain monocots
- D. primitive dicots

#### **Answer: A**



**75.** In which one of these the elaters are present along with mature spores in the capsule (to help in spore dispersal)?

- A. Riccia
- B. Marchantia
- C. Funaria
- D. Sphagnum

#### **Answer: B**



**76.** A well developed archegonium with neck consisting of 4-6 rows of neck canal cells, characterises

- A. gymnosperms only
- B. bryophytes and pteridophytes
- C. pteridophytes and gymnosperms
- D. gymnosperms and flowering plants

#### **Answer: B**



77. The plant body of moss (Funaria) is

A. completely sporophyte

B. completely gametophyte

C. predominantly sporophyte with gametophyte

D. predominantly gametophyte with

**Answer: D** 



sporophyte

### 78. Agar is commercially obtained from

- A. red algae
- B. green algae
- C. brown algae
- D. blue-green algae

#### **Answer: A**



**79.** The absence of chlorophyll, in the

lowermost cell of Ulothrix, shows

A. functional fission

B. tissue formation

C. cell characteristic

D. beginning of labour division

**Answer: D** 



80. The 'wing' of Pinus seed is derived from

A. testa

B. testa and tegmen

C. surface of ovuliferous scale

D. All of the above

#### **Answer: C**



**81.** In Chlorophyceae, sexual reproduction occurs by

A. isogamy and anisogamy

B. isogamy, anisogamy and oogamy

C. oogamy only

D. anisogamy and oogamy

#### **Answer: B**



82. Unique features of bryophytes is that they

A. produce spores

B. have sporophyte attached to gametophyte

C. lack roots

D. lack vascular tissues

**Answer: B** 



83. Which of the following cannot fix nitrogen?

- A. Nostoc
- B. Azotobacter
- C. Spirogyra
- D. Anabaena

**Answer: C** 



## 84. Chloroplast of Chlamydomonas is

- A. stellate
- B. cup-shaped
- C. collar-shaped
- D. spiral

#### **Answer: B**



**85.** In Ulothrix/Spirogyra, reduction division (meiosis) occurs at the time of

A. gamete formation

B. zoospore formation

C. zygospore germination

D. vegetative reproduction

#### **Answer: C**



- A. tree habit
- B. green leaves
- C. ovules not enclosed in ovary
- D. wood

### **Answer: C**



**87.** Pteridophytes differ from mosses/bryophytes in possessing

- A. independent gametophyte
- B. well developed vascular system
- C. archegonia
- D. flagellate spermatozoids

**Answer: B** 



**88.** Which one is the most advanced from evolutionary view point

- A. Selaginella
- B. Funaria
- C. Chlamydomonas
- D. Pinus

**Answer: D** 



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89. Pyrenoids are the centres for formation of

A. porphyra

B. enzyes

C. fat

D. starch

**Answer: D** 



**90.** The plant group that produces spores and embryo but lacks vasular tissues and seeds is

- A. Pteridophyta
- B. Rhodophyta
- C. Bryophyta
- D. Phaeophyta

**Answer: C** 



**91.** A plant having seeds nut lacking flowers and fruits belongs to

A. pteridophytes

B. mosses

C. ferns

D. gymnosperms

**Answer: D** 



# **92.** Which one of the following is not common

between Funaria ad Selaginella?

- A. Archegonium
- B. Embryo
- C. Flagellate sperms
- D. Roots

#### **Answer: D**



**93.** A plant in which sporophytic generation is represented by zygote is

- A. Pinus
- B. Selaginella
- C. Chlamydomonas
- D. Dryopteris

**Answer: C** 



**94.** In Pinus, the pollen grain has 6 chromosomes then its endosperms will have the chromosome

- A. 12
- B. 18
- C. 6
- D. 24

#### **Answer: C**



### 95. Resin and terpentine are obtained from

- A. Cycas
- **B. Pinus**
- C. Cedrus
- D. Abies

**Answer: B** 



# 96. Which one has the largest gametophyte?

- A. Cycas
- B. Angiosperm
- C. Selaginella
- D. Moss

#### **Answer: D**



### 97. Bryophytes are amphibians because

A. they require a layer of water for carrying out sexual reproduction

B. they occur in damp places

C. they are mostly aquatic

D. All of the above

#### **Answer: A**



**98.** The product of conjugation in Spirogyra or fertilisation of Chlamydomonas is

- A. zygospore
- B. zoospore
- C. oospore
- D. carpospore

**Answer: A** 



### 99. Apophysis in the capsule of Funaria is

- A. lower part
- B. upper part
- C. middle part
- D. fertile part

#### **Answer: A**



### 100. Moss peristome takes part in

- A. spore dispersal
- B. photosynthesis
- C. protection
- D. absorption

#### **Answer: A**



### 101. Protonema occurs in the life cycle of

- A. Riccia
- B. Funaria
- C. Chlamydomonas
- D. Spirogyra

#### **Answer: B**



- 102. Sperms of both Funaria and Pteris were released together near the archegonia of Pteris. Only Pteris sperms enter the archegonia as
  - A. Pteris archegonia repel Funaria sperms
  - B. Funaria sperms get killed by Pteris
  - C. Funaria sperms are less mobile

attract its sperms

sperms

D. Pteris archegonia release chemical to

#### **Answer: D**



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**103.** Evolutionary important character of Selaginella is

- A. heterosporous nature
- B. rhizophore
- C. strobili
- D. ligule

#### **Answer: A**



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**104.** In Pinus/gumnosperms, the haploid structure are

- A. megaspore, endosperm and embryo
- B. megaspore, pollen grain and endosperm
- C. megaspore, integument and root
- D. pollen grain, leaf and root

#### **Answer: B**



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**105.** In Pinus/Cycas/gymnosperms, the endosperm is

- A. trlploid
- B. haploid
- C. diploid
- D. tetraploid

#### **Answer: B**



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**106.** Prothallus (gametophyte) gives rise to fern plant (sporophyte) without fertilisation. It is

A. apospory

B. apogamy

C. parthenocarpy

D. parthenogenesis

#### **Answer: B**



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**107.** Sexual reproduction involving fusion of two cells in Chlamydomonas is

- A. isogamy
- B. homogamy
- C. somatogamy
- D. hologamy

### **Answer: D**

