

BIOLOGY

BOOKS - SARAS PUBLICATION

DIVERSITY IN LIVING WORLD

Exercise

1. Which one of the following statements about mycoplasma is wrong?

- A. They cause diseases in plants
- B. They are called PPLO
- C. They are plemorphic
- D. They are sensetive to penicillin



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

- A. Riccia, Dyropteris and cycas
- B. Anthocerous, Funaria and spirogyra
- C. Zygnema, saprolegina and Hydrilla
- D. Fucus, Marsilea and caltropis



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3. In gymnoperms, the pollen chamber represent:

- A. the microsporangium in which pollen grains develop
- B. a cell in the pollen grain in which the sperms are formed.
- C. a cavity in the ovule in which pollen grains are stored after pollination
- D. an opening in the megagametophyten through which the pllen tube approaches the egg

4. ICBN stands for

- A. Indian code of Botanical Nomenclature
- B. Indian congress of Biological Names
- C. International code of Botanical

Nomenclature

D. International congress of Biological

Names



- **5.** Male gametes in anhiosperms are formed by the division of .
 - A. Microspore mother cell
 - B. Microspore
 - C. Generative cell
 - D. Vegetative cell



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6. Keeping in view the fluid mosaic model for the structure of cell membrane, which one of the following statements is correct with respect to the movement of lipids and proteins from one lipid monolayer to the other

A. Both lipids and protein can flip-flop

- B. While lipids can rarely flip flop, proteins can not
- C. While proteins can flip flop, lipids can not
- D. Neither lipids, nor proteins can flip flop



7. In which one of the following, male and female gametohphytes do not have free living independent existence?

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

Answer:



- **8.** Select one of the following pairs of important features distinguishing Gnetum from Cycas and Pinus and showing affinties 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



- **9.** Which one of the following is NOT a characteristic of phylum Annelida?
 - A. Closed cirulatory system
 - B. Segmentation
 - C. Pseudocoelom
 - D. Ventral nerve cord



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10. Which one of the following phyla is correctly matched with its two genral characteristics?

A. Arthropoda - Body divided into head,
thorax and abdomen and respiration by
tracheae

- B. Chordata Notochord at some stage and separate anal and urinary opening to the outside
- C. Echinodermate pentamerous radial symmetry and mostly internal fertilization
- D. Mollusca Normally oviparous and development through a trochophore or veligerlarva

- 11. Peripatus is a connecting link between:
 - A. Mollusca and Echinodermata
 - B. Annelida and Arthropoda
 - C. Coelenterata and Porifera
 - D. Ctenophora and Platyhel-minthes



12. T.O Diener discover a:

- A. Free infection DNA
- B. Infection protein
- C. Bacteriophage
- D. Free infection RNA

Answer:



13.	Which	one	of	the	following	plants	is
mo	noeciou	s?					

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



14. Semiconservative replication of DNA was first demonstrated in :

- A. Escherichia coli
- B. Streptoccus pneumoniae
- C. Salmonella typhimurium
- D. Drosophila meanogater

Answer:



15. Which one of the following pairs of animals comprises 'Jawless fishes?

- A. Mackerals and Rohu
- B. Lampreys and hag fishes
- C. Guppies and hag fishes
- D. Lampreys and eels

Answer:



16.	Which	one	of	the	following	is	а	vascular
cry	ptogra	m?						

- A. Ginkgo
- B. Marchantai
- C. Cedrus
- D. Equiselum



17. Vegetative propagation in mint occurs by	! :

A. Offset

B. Rhizome

C. Sucker

D. Runner

Answer:



- **18.** In the case of peppered month (Biston betuaria)the black colouredform became dominant over the light coloured form in England during industrial revolution. This is an example of
 - A. 1) appearance of the darker coloured individuals due to very poor sunligh
 - B. protective mimicry
 - C. Inheritance of darker colour character acquired due to the darker environment

D. Natural selectio wherby the darker forms were selectd.

Answer:



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19. Which one of the following correctly describes the location of some body parts in the earhworm phectima?

A. Four pairs of spermathecae in 4 - 7 segment

B. One pair of ovaries attached at intersegment septum of 14th and 15th

C. Two pairs of testes in 10th and 11th segment

D. Two pairs of accesory glands in 16 - 18 segment

Answer:



20. The chief water conducting elements of xylem in gymnosperms are:

- A. Vessels
- B. Fibres
- C. Transfusion tissue
- D. Tracheids

Answer:



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21.	Ringworm	ın	humans	IS	caused	bv	•
						\sim	•

- A. Bacteria
- B. Fiungi
- C. Nematodes
- D. Viruses



- 22. If due to some injury the chordae tendineae of the tricuspid valve of the human heart is partally non functional, what wil be the immediate effect?
 - A. The flow of blood into the aorta will be slowed down
 - B. The 'pacemaker' will stop working
 - C. The blood will tend to flow back into the

left atrium

D. The flow of blood into the pulmonary artery will be reduced

Answer:



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23. Male and female gametophytes are independent and free - living in :

A. Mustard

B. Castor

C. Pinus

D. Sphagnum

Answer:



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24. The technicial term used for the androcium in a flower of china rose (Hibiscus rosa sinensis) is :

A. Monadelphous

- B. diadelphous
- C. Polyandrous
- D. Polyadelphous



- 25. Algae have cell wall made up of
 - A. Cellulose, galactans and mannas
 - B. Hemicellulose, petins and proteins

C. Pectins, cellulose and proteins

D. Cellulose, hemicellulose and pectinsTwo pairs of accesory glands in 16 - 18 segment

Answer:



26. Compared with the gametophytes of the bryophytes, the gametophytes of vascular plants tends to be

- A. Smaller and to have smaller sex orguns
- B. Smaller but to have larger sex organs
- C. Larger but to have smaller sex organs
- D. Larger and to have larger sex organs



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

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



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28. Which one of the following groups of amimals is correctly matched with its one

characteristic feature without even a single exception?

A. Mammalia: give birth to young ones

B. Reptilia Possess 3- chambered heart with one incompletely divided ventricle

C. Chordata: possess a mounth provided

with an upper and a lower jaw

D. chondrichthyes: possess cartilaginous endoskeleton

Answer:

29. What will you look for to identify the sex of the following

A. Male shark - claspers borne on pelvic fins

B. Females Ascaris - sharply curved

posterior end

C. Male frog - A copulatory pad on the first

digit of the hind limp

D. Female cockroach - Anal cerci



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30. Which one of the following is a correct statement?

- A. Pteridophyte gametophyte has a protonemal and leafy
- B. In gymnosperms female gametophyte is

free - living

- C. Antheridiophores and archegoniophytes are present in pteridophytes
- D. Origin of seeds habit can be traced in pteridophytes



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31. The highest number of species in the world is respresented by

B. Mosses					
C. Algae					
D. Lichens					
Answer:					
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32. Which statement is wrong for viruses					
A. All are parasites					

A. Fungi

- B. All of them have helical symmetry
- C. They have ability of synthesize nucleic acids and proteins
- D. Antibiotics have no effect on them



33. Which one of the fololowing is common to multicellular fungi, filametous algae and protonema of mosses

- A. Diplontic life cycle
- B. Members of kingdom plantae
- C. Mode of Nutrition
- D. Multuiplication by fragmentation



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34. Gymnosperms are also called soft wood spermatophytes because they lack

- A. Cambium
- B. Phloem fibres
- C. Thick walled tracheids
- D. Xylem fibres



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35. Maximum nutritional diversity is found in the group

- A. Fungi
- B. Animalia
- C. Monera
- D. Planate



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36. Which one of the following not a correct statement?

A. Herbarium houses dried pressed and preserved specimens

B. Botanical gardens have collection of living plants for reference

C. A museum has collection of photographs of plants and animals

D. Key is a taxonomic aid for identification of specimens

Answer:



37. Read the following statement (A-E) and answer the question which follows them (A) In Livewords, mosses, and ferns gametophytes are free - living . (B) Gymnosperms and some ferns are heterosporous. (C)Sexula reproduction in Fucus, Volvox and Albugo is oogamous. (D) THe sporophte in liverworts is more elaborate than that in mosses. (E) Both, Pinus and Marchantia are Dioecious. How many of the above statement are correct

A. One
B. Two
C. Three
D. Four
Answer: Watch Video Solution
38. Advantage of clestogamy is
A. Higher genetic variability

- B. More vigorous offspring
- C. No dependence on pollinators
- D. Vivipary



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39. Monoecious plant of Chara shows occurrence of.......

- A. Antheridiophore and archegoniaphore on the same plant
- B. Stamen and carpel on the same plant
- C. Upper antheridium and lower oogonium on the same plant
- D. Upper oogonium and lower antheridium on the same plant



40. Which of the following is not correctly matched for the organism and its cell wall degarding enzyme?

A. Bacteria - Lysozyme

B. Plant cells - cellulase

C. Algae - Methylase

D. Fungi - Chitinase

Answer:



41. Which of the following represent maximum number of species among global biodiversity?

- A. Algae
- **B.** Lichens
- C. Fungi
- D. Mosses and Ferms

Answer:



42.	One	of	the	representative	of	phylum
Arth	ropo	da is	5			

A. Cuttlefish

B. Silverfish

C. Pufferfish

D. Flyingfish

Answer:



43. Which one of the following is true for fungi?

A. They are phagotrophs

B. They lack a rigid cell wall

C. They are heterophs

D. They lack nuclear membrane

Answer:



44. What is common in all the three , Funaria,

Dryopteris and Ginkgo?

A. Independent sporophyte

B. Presence of archegonia

C. Well developed vascular tissue

D. Independent gametophyte

Answer:



45. Which one of the following is wrongly matched?

- A. Nostic Water blooms
- B. Spirogyra Motile gamet
- C. Sargassum Chlorophyll C
- D. Basidimycetes -Puffballs

Answer:



46. Among flowers of calotropis, tulip, Sesbania, Asparagus, Colchicum, Sweet pea, Petunia, Indigofera, Mustard, Soyabean, Tobacco and groundnut, how many plants have corolla with valvate aestivation?

- A. Five
- B. Six
- C. Seven
- D. Eight



47. Syngamy can occur outside the body of the organism in

A. Fungi

B. Mosses

C. Algae

D. Ferns

Answer:



48. Sharks and dogfishes differ from skates and rays by

A. Their pectoral fins distinctly marked off from cylindral bodies

B. Gill slits are ventrally placed

tail

C. Head and trunk are widened considerably

D. Distinct demaeaction between body and



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49. What Is a capsule advantageous to a bacterium?

A. It allows the bacterium to attach to the surface

B. It protects the bacterium from desication

C. It provides means of locomotion

D. It allows bacterium to "hide" from host's immune system

Answer:



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50. Which one of the following fungi contains hallucinogens?

A. Morchella esculenta

- B. Amanita muscaria
- C. Neurospora sp.
- D. Ustilago sp.



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51. 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



52. Which of the following is responsible for peat formation?

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

Answer:



53. Male gametophyte with least number of
cell is present in :
A. Pteris
B. Funaria
C. Lilium

D. Pinus

Answer:



54. Viruses have:

- A. DNA enclosed in a protein coat
- B. Prokaryotic nucleaus
- C. Single chromosome
- D. Both DNA and RNA

Answer:



55. An alga which can be employed as food for human being is :

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

Answer:



56. Which one of the following matches is correct?

A. Phytophthora Asepate mycelium

Basidiomycetes

B. Altemania Sexual repro-duction absent

Deuteromycetes

C. Mucor Reproduction by conjugation

Ascomycetes

D. Agaricus Parasitic fungus

Basidiomycetes



- **57.** Read the following statements (A to E) and select the option with all correct statements :
- A. Mosses and Lichens are the first organisms to colonise a bare rock.
- B. Selaginella is a homosporous pteridophyte.
- C. Coralloid roots in Cycas have VAM.
- D. Main plant body in bryophytes is gametophytic, whereas in pteridophytes itis

sporophytic.

E. In gymnosperms, male and female

gametophytes are present within sporangia located on sporophyte.

A. Mosses and Lichens are the first organisms to colonisea bare rock

pteridophyte.

а

homosporous

C. Coraloid roots in Cycas have VAM

B. Selaginella is

D. Main plant body in bryophytes is

gametophytic, whereas in pteridophytes

is sporophytic

Answer:



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58. How many pairs of constrasting characters in pea plants were studies by Mendal in his experiments?

A. Five

B. Six

C. Eight

D. Seven

Answer:



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59. Which of the following represent the correct combination without any exception?

A. Mammary gland, hair o body, pinnae, two

pairs of limbs - Mammalia

- B. Mouth ventral: gills without operculum, skin with placoid scales, persistent notochord chondrichthyes
- C. Sucking and cirucular mouth, jaws absent integument without scales, paired appendages Cyclostomata
- D. Body covered with feathers skin moist and glandular forelmbs from wings, lungs with air sacs Aves



60. Which of the following animals is not viviparous?

A. Flying fox (bat)

B. Elephant

C. Platypus

D. Whale



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61. Which of the following viruses is not transferred through semen of an infected male?

A. Hepatitis B virus

B. Human immunodeficiency virus

C. Chikungunya virus

D. Ebola virus

62. Male gametophyte in angiosperms produces:

A. Single sperm and a vegetative cell

B. Single sperm and two vegetative cells

C. Three sperms

D. Two sperms and a vegetative cell

Answer:



63. The imperfect fungi which are decomposer of litter and help in mineral cycling belong to :

- A. Basidiomycets
- B. Phycomycetes
- C. Ascomycets
- D. Deuteromycetes

Answer:



64. Pick up the wrong statement

- A. Protista have photosynthetic and heterotrophic modes of nutrition
- B. Some fungi are edible
- C. Nuclear membrane is present in Monera
- D. Cells wall Is absent in Animalia

Answer:



65. Which of the following diseases is caused by a protozoan?

- A. Influenza
- **B.** Babesiosis
- C. Blastomycosis
- D. Syphills

Answer:



- **66.** Selected the wrong statement :
 - A. W.M. Stanely showed that viruses could be crystallized
 - B. The term 'contagium vivum fluidum ' was coined by M.W. Beijerinck
 - C. Mosaic disease in tobaco and AIDS in human being are caused by viruses
 - D. The viroids were discovered by D.j.

 lvanowsky



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67. Body having meshwork of cells, internal cavities lined with food filtering cells anf ndirect development are the Characteristics of phylum

- A. Porifera
- B. Mollussca
- C. Protozoa

D. Colenterata

Answer:



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68. Chrysophytes, Euglenoids, Dinoflagellates and Slime moulds are included in the kingdom

- A. Animalia
- B. Monera
- C. Protista

D. Fungi

Answer:



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69. Select the correct statement:

A. The leaves of gymnosperms are not well

adapted to extrmes of climate

B. Gymnosperms are both h o m o s p o r o

u s and heterosporous

C. Salvinia, Ginko and Pinus all are gymnosperms

D. Sequoia is one of the tallest trees

Answer:



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70. One of the major components of cell wall of most fungi is

A. Hemicelluloses

- В.
- C. Chitin
- D. Peptidoglycan

Answer: Cellulose



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71. Which of the following would appear as the pioneer organisms on bare rocks?

A. Green algae

- B. Lichens
- C. Liverworts
- D. Mosses



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72. Which of the following features is not present in the Phylum - Arthropoda?

A. Jointed appendages

- B. Chitinous exoskeleton
- C. Metameric segmentation
- D. Parapodia



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73. Tricarpellary, syncarpous gynoecium is found in flowers of :

A. Poaceae

- B. Liliaceae
- C. Solanaceae
- D. Fabaceae



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74. Nomenclature is governed by certain universal rules, Which one of the following is contary to the rules of nomenclature

- A. When written by hand, the names are to
 - be underlined
- B. Biological names can be written in any language
- C. The first word ina biological name represent the genus name, and the second is a specific epithet.
- D. The names are written in Latin and are italicised

A. Water

B. Wind

C. Insects

D. Birds

Answer:



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76. Which of the following statements is wrong for viroids?

A. Their RNA is of high molecular weight

B. They lack a protein coat

C. They are smaller than viruses

D. They cause infections

Answer:



77. In majority of angiosperms:

- A. Reproduction division occurs in the megaspore mother cells
- B. a small central cell is present in the embryo sac
- C. egg has a fliliform appartus
- D. there are numerous antipodal cells

Answer:

78. The ovule of an angiosperm is technically equivalent to

A. megaspore mother cell

B. megaspore

C. megasporangium

D. megasporophyll

Answer:



79. Which one of the following is wrong for fungi?

A. They are hetertophic

B. they are both unicellular and multicellular

C. They are eukaryotic

D. All fungi posses a purely cellulosic cell wall



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80. Which one of the following statement is wrong?

A. Agar - agaris obtained from Gelidium and Gracilaria

B. Laminaria and Sargassum are used as food

- C. Algae increase the level of dissolved oxygen in the immediate environment
- D. Algin is obtained from red and Carrageenan from brown algae



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81. Fuction megaspore in an angiosperm develops into:

- A. Endosperm
- B. Embryo sac
- C. Embryo
- D. Ovule



- 82. An example of colonial alga is
 - A. Volvox

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



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83. An important characteristic that

Hemichordates share with Chordates is:

A. Ventral tubular nerve cord

- B. Pharynx with gill slits
- C. Pharynx without gill slits
- D. absence of notochord



- **84.** Viroids differ from viruses in having:
 - A. DNA molecules without protein coat
 - B. RNA molecules with protein coat

- C. RNA moleules without protein coat
- D. DNA molecules with protein coat



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85. Frog's heart when taken out of the body continues to beat for sometime - Select the best option from the following statements

(a) Frog is a poikilotherm

Frog does not have any coronary circulation

Heart is "myogenic " in nature

Heart is autoexcitable

A. Only (d)

B. (a) and (b)

C. (c.) and (d)

D. Only (c)

Answer:



86. Mycorrhizae are the example of

- A. Amensalism
- **B.** Antibiosis
- C. Mutualism
- D. Fungistasis

Answer:



87. The	morpl	nogical	nature	of	the	edible	part
of coco	nut is	•					

- A. Cotyledon
- B. Endosperm
- C. Pericarp
- D. Perisperm



88. Double fertilization is exhibited by:				
A. Algae				
B. Fungi				
C. Angiosperms				
D. Gymnosperms				
Answer:				