

SECTION "A" (MULTIPLE CHOICE QUESTIONS)

1. Choose the correct answer for each from the given options:

1. Butterfly belongs to phylum:

- Mollusca
- Echinodermata
- Annelida
- Arthropoda

2. This bird cannot fly:

- Pigeon
- Kiwi
- Parrot
- Sparrow

3. Respiratory organs of insects are:

- Trachea
- Lungs
- Flame cell
- Malpighian tubules

4. He discovered the cell; basic units of living organisms;

- William Harvey
- Robert hook
- Calileo
- Charles Darwin

5. Agaricus is commonly known as:

- Bread mold
- Yeast
- Mushroom
- All of these

6. This one of the following is not a consequence of deforestation:

- Greenhouse effect
- Depletion of ozone layer

- Soil erosion
- Disturbed water cycle

7. The group of marchantia is:

- Hepaticae
- Musci
- Mosses
- Anthocerotae

8. Glycogen is a molecule that belongs to:

- Carbohydrates
- Fats
- Protein
- Vitamins

9. The end products of respiration in plants are:

- C₂O, H₂O and energy
- Starch and O₂
- Sugar and O₂
- H₂O and energy

10. Horsetail is the common name of:

- Lyscopsida
- Sphenosida
- Pislopsida
- Pteropsida

11. This secretion lacks enzymes:

- Saliva
- Gastric juice
- Bile
- Pancreatic juice

12. The deficiency of hemoglobin in a person is called:

- Heart attack
- Angina
- Haemophilia
- Anaemia

13. Urea is mainly synthesized in:

- Liver
- Lungs
- Kidney
- Nephron

14. Muscles in human involved in locomotion are:

- Smooth
- Cardiac
- skeletal
- involuntary

15. fruit is a ripened:

- ovule
- ovary
- flower
- carpel

16. the inner most whorl of a flower is:

- calyx
- corolla
- androecium
- gynoecium

17. the number of chromosomes in each cell of frog is:

- 46
- 26
- 16
- 14

18. Green plant in an ecosystem are:

- Consumers
- Decomposers
- Producers
- None of these

SECTION “B” (SHORT-ANSWER QUESTIONS)

NOTE: Attempt 8 questions from this section.

2. Draw a neat and labeled diagram of dorsal view of heart of frog.
3. Taking case of malaria, explain the following biological method:
 - (i) Observation
 - (ii) Experiment
 - (iii) Hypothesis
 - (iv) Deduction
 - (v) Result
4. What changes did Margulis and Schwartz suggest in Whittaker’s scheme? Explain their all suggested kingdom?
5. Explain five factors affecting the rate of transpiration?
6. Define joints. Write two defects of skeletal system?
7. State Lamarck’s theory of evolution giving example of snake. Or giraffe.
8. Discuss why viruses are considered as living organisms and which characteristics differentiated them from living organisms?
9. Write five differences between Angiosperm and Gymnosperm plants?
10. Write down five points on the importance of Fungi?
11. Name the five hormones of plants. Briefly explain any two of them.
12. Define:
 - (i) Tracheophytes
 - (ii) Plastids
 - (iii) Osmosis
 - (iv) Producers
 - (v) Photosynthesis
13. Draw a neat and labeled diagram of T.S. of Brassica Roots.

SECTION “C” (DETAILED-ANSWER QUESTIONS)

NOTE: Attempt 3 questions from this section.

14. (a) Draw a neat and labeled diagram of Arterial system of frog OR L.S of human kidney.
(b) Describe four type of Bacteria according to shape.
15. (a) Describe different types of teeth in human body with their functions. Write dental formula also.
(b) Describe any two methods of dispersal of fruits and seeds.

SECTION "A" (MULTIPLE CHOICE QUESTIONS)

16. Choose the correct answer for each from the given options:

19. Kitab ul Manazir is written by:

- Bu Ali Sina
- Abdul Malik Asmai
- Al Farabi
- Ibn-ul-Haitham

20. Cascuta is a leafless plant. It is:

- Total parasite
- Partial parasite
- Saprophyte
- Symbiont

21. The part of brain associates with intelligence, memory, etc is:

- Cerebrum
- Cerebellum
- Pons
- Medulla oblongata

22. The outermost whorl of a flower is:

- Calyx
- Corolla
- Androecium
- Gynoecium

23. The sensory layer of an eyeball is:

- Cornea
- Retina
- Choroid
- Sclerotic

24. Energy is used to move molecules by:

- Diffusion

- Osmosis
- Active transport
- Passive transport

25. Nephrons are connected with:

- Respiratory system
- Nervous system
- Circulatory system
- Excretory system

26. Muscles are attached to the bone by:

- Capsule
- Ligament
- Tendon
- Both Ligament and Tendon

27. Name of techniques discovered by Louis Pasteur is:

- Radiation
- Pasteurization
- Fermentation
- Sterilization

28. The basic unit of inheritance is:

- Chromosome
- Gene
- Nucleoplasm
- Nucleus

29. Green plants in an ecosystem are:

- Consumers
- Decomposers
- Producers
- None of these

30. Plasmodium causes:

- Typhoid
- Malaria

- Cholera
- Influenza

31. The tissue that conduct water and salts from the soil to the leaves in plants is:

- Xylem
- Phloem
- Cambium
- All of them

32. It is called power house of the cell:

- Mitochondria
- Golgi bodies
- Centrosome
- Ribosome

33. Nostoc belongs to:

- Cocci bacteria
- Eubacteria
- cyanobacteria
- None of these

34. The group of Marchantia:

- Hepaticae
- Musci
- Mosses
- Anthocerotae

35. These are exclusively marine:

- Protozoa
- Annelida
- Mollusca
- Echinodermata

36. Lack of enzyme is found in:

- Saliva
- Gastric juice
- Bile
- Pancreatic juice

SECTION “B” (SHORT-ANSWER QUESTIONS)

NOTE: Attempt 8 questions from this section.

17. Draw a neat and labeled diagram of dorsal view of heart of frog.
18. Name and define any five branches of Biology.
19. Write five characteristics of class Aves.
20. Draw a neat and labeled diagram of internal structure of a Human tooth.
21. What is metamorphosis? Name and define two type of metamorphosis.
22. Write five differences between Prokaryotic and Eukaryotic cells.
23. Draw a neat and labeled diagram of Brassica Flower.
24. Write five general characteristics of cyanobacteria.
25. Define pollination and fertilization. Define types of pollination in plants.
26. Name any five Muslims scientists and write atleast one contribution of each in the field of Biology.
27. What are autotrophic plants and heterotrophic plants? Name and briefly describe any three types of heterotrophic plants.
28. Define aerobic respiration and anaerobic respiration with chemical equation of each.

SECTION “C” (DETAILED-ANSWER QUESTIONS)

NOTE: Attempt 3 questions from this section.

29. (a) Draw a neat and labeled diagram of Human eye.
(b) What is germination? Name and define three kinds of germination of seeds.
30. (a) Describe an experiment to prove that carbon dioxide is necessary for photosynthesis.
(b) Write four functions of blood.
31. (a) Name three types of movements in plants. Describe any one of them.
(b) What are endocrine glands? Name any four endocrine glands with one hormone secreted by each for them.
32. (a) Draw a neat and labeled diagram of Dorsal view of heart of frog.
(b) Write down four differences between monocot and dicot plant.
(a) Draw a neat and labeled diagram of Chlamydomonas.
(b) Define portal system. Name and Define two types of portal system in frog.

SECTION "A" (MULTIPLE CHOICE QUESTIONS)

33. Choose the correct answer for each from the given options:

37. Tuberculosis is caused by:

- Virus
- Bacteria
- Worm
- None of these

38. Mycelium of fungi is made up of:

- Sori
- Sporangium
- Gamete
- Hyphae

39. It is not cold-blooded animal:

- Fish
- Cat
- Frog
- Snake

40. The outermost whorl of a flower is:

- Calyx
- Corolla
- Androecium
- Gynoecium

41. The sensory layer of an eyeball is:

- Cornea
- Retina
- Choroid
- Sclerotic

42. D.N.A is present in:

- Nucleus

- Chromosome
- Cell
- Nucleoplasm

43. The basic unit of classification is:

- Phylum
- Order
- Class
- Species

44. He discovered cell the basic unit of living organisms:

- Galileo
- Robert Hook
- William Harvey
- Linnaeus

45. Intelligent guess of a scientist which is in the form of a statement is called:

- Deduction
- Theory
- Hypothesis
- Law

46. It is a gill breathing animal:

- Frog
- Fish
- Whale
- Turtle

47. The vitamin is essential for vision and skin:

- Vitamin A
- Vitamin B
- Vitamin C
- Vitamin D

48. Agaricus is commonly known as:

- Mushroom
- Yeast

- Bread mould
- Water mould

49. This bird cannot fly:

- Pigeon
- Kiwi
- Parrot
- sparrow

50. This tissue conducts water and salt in plants:

- Xylem
- Phloem
- Cambium
- Pith

51. The seed is a:

- Ripened ovule
- Ripened ovary
- Endosperm
- cotyledon

SECTION “B” (SHORT-ANSWER QUESTIONS)

ZOOLOGY

NOTE: Attempt 7 questions from this section.

34. Write five differences between Prokaryotic and Eukaryotic cells.

35. Draw a neat and labeled diagram of ventral view of heart of frog.

36. Write three characteristics of phylum Arthropoda.

37. Draw a neat and labeled diagram of rod-shaped Bacterium.

38. Define Metamorphosis and write its two types.

39. Name any three endocrine glands also write one hormone secreted by each gland.

40. Write any three differences between sexual reproduction and asexual reproduction.

41. Write three differences between Arteries and veins.

42. Define:

(i) Mitosis

(ii) Nucleus

(iii) Plastids

43. Name three components of cigarette smoke and write their harmful effect on human health.

BOTANY

NOTE: Attempt 7 questions from this section.

44. Write three differences between Dicot plant and Mono cot plant.
45. Draw a neat and labeled diagram of an Adiantum plant.
46. Write three differences between combustion and photosynthesis.
47. Define:
(i) parasites (ii) saprophytes
(iii) Insectivorous plant.
48. Define germination and write the names of two kinds of germination.
49. Write short note on Flora of Pakistan.
50. Define three types of movement in plants.
51. Define pollution. Write name of any two types of pollution.
52. Define:
(i) Alleles (ii) Homozygous
(iii) Dominant character
53. What is pollination? Write about its two types.

SECTION "C" (DETAILED-ANSWER QUESTIONS)

ZOOLOGY

NOTE: Attempt 2 questions from this section.

54. Draw a neat and labeled diagram of human digestive system.
55. Describe Darwin's theory of Evolution and explain important points of this theory in detail.
56. What is tissue? Describe animal tissues in detail with the help of labeled diagram.

BOOTANY

NOTE: Attempt 2 questions from this section.

57. Describe an experiment to prove that Carbon dioxide is essential for photosynthesis. Draw its labelled diagram.

58. What is meant by Dispersal of Seeds and Fruits? Describe different methods of dispersal.

59. Draw a neat and labeled diagram of the transverse section of Brassica stem.

Biology

2016

SECTION "A" (MULTIPLE CHOICE QUESTIONS)

1. Choose the correct answer for each from the given options:

52. Alkhalil, Al-ibil, Al-Wahhoosh were written by:

- Jabir Bin Hayan
- Abdul Malik Asmai
- Ibn-Al-Haitham
- Ziauddin Baitar

53. The family of mustard is:

- Brassicaceae
- Poaceae
- Rosaceae
- Palmaceae

54. Characteristic of viruses due to which they are considered as living:

- Non-cellular structure
- Total parasite
- Undergo Crystallization
- Undergo Reproduction

55. Glycogen is a molecule that belongs to:

- Carbohydrates
- Fats
- Protein
- Vitamins

56. Respiratory Organs of insects are:

- Flame cells
- Malpighian Tubules
- Trachea
- Lungs

57.R.B.G are concerned with the transport of:

- Nutrients
- Oxygen and Carbon dioxide
- Homones
- Enzymes

58.Blood is filtered in the kidneys through the:

- Bowman's capsule
- Glomerulus
- Loop of Henle
- Renal Tubule

59.The part of brain associated with the intelligence, memory, etc. is:

- Cerebrum
- Cerebellum
- Pons
- Medulla Oblongota

60.The number of chromosomes in each human cell is:

- 23
- 26
- 36
- 46

61.Cocci bacteria are of this shape:

- Rounded
- Rod shaped
- Spiral shaped
- Curved

62.Cuscuta plant is a:

- Total parasite
- Partial parasite
- Saprophyte
- Symbiont

63.The book "Kitab-ul-Manazir" is written by:

- Ibn-ul-Haitham

- Bu-Al-Seena
- Al-Razi
- Jabir-Bin-Hayyan

64. It has no teeth in the mouth of:

- Shark
- Frog
- Man
- Eagle

65. The sensory layer of eyeball is:

- Scierotic
- Choroid
- Retina
- Cornea

66. The disease is caused by salmonella typhosa:

- Malaria
- Dysenty
- Cholera
- Typhoid

SECTION "B" (SHORT-ANSWER QUESTIONS)

ZOOLOGY

NOTE: Attempt 7 questions from this section.

2. Draw a neat and labeled diagram of Dorsal view of heart of Frog
3. Write three functions of blood
4. Define Binary Fission and Multiple Fission.
5. Write differences between any one of the following:
(i) Arteries & Vein (ii) Anaemia and Haemophilia
6. What is Biology? Define any two branches of Biology.
7. Write the names of three Endocrine Glands and also write names of Hormones secreted by these glands.
8. Define and give one example of each of the following:
(i) Carnivores (ii) Herbivores
(iii) Omnivores

9. Draw a neat and labeled diagram of the structure of a human tooth.
10. Write three differences between Prokaryotic cell and Eukaryotic cell.
11. Write three main points of Darwin's theory of Evolution.

BOOTANY

NOTE: Attempt 7 questions from this section.

12. Write differences between any one of the following:
 - (i) Angiosperm and Gymnosperm
 - (ii) Respiration and Combustion
13. Define any two:
 - (i) Tactic movement
 - (ii) Species
 - (iii) Decomposers
14. Draw a neat and labeled diagram of Pitcher Plant (Insectivorous):
15. What is pollination? Write names of two type of pollination.
16. Write three points about importance of transpiration for plants.
17. Draw a neat and labeled diagram of Chlamydomonas.
18. Write three points of importance of fungi.
19. Write short note on Flora of Pakistan.
20. Define the following:
 - (i) Osmosis
 - (ii) Biogenesis
 - (iii) Mitosis
21. Write the name of the four whorls of flower of Brassica and write one function of each.

SECTION "C" (DETAILED-ANSWER QUESTIONS)

ZOOLOGY

NOTE: Attempt 2 questions from this section.

22. Describe disorders of Respiratory system in man.
23. Draw a neat and labeled diagram of Internal Structure of eye of Frog.
24. What is tissue? Describe any two types of animal tissues with the help of labeled diagram.

BOOTANY

NOTE: Attempt 2 questions from this section.

25. Draw a neat and labeled diagram of T.S. of Brassica Root.
26. Describe an experiment to prove that Carbon dioxide is essential for photosynthesis. Also draw the diagram.
27. What is meant by Dispersal of Seeds and Fruits? Describe any two methods of dispersal of seeds & fruits.

Biology

2015

SECTION "A" (MULTIPLE CHOICE QUESTIONS)

28. Choose the correct answer for each from the given options:

67. The type of lenses of light microscope is:

- Biconcave
- Convex
- Concave
- Electromagnetic

68. Rust and smut of cereal crop is due to:

- Algae
- Fungi
- Virus
- Bacteria

69. Prokaryotic cells do not contain:

- Nucleus
- Ribosomes
- Cell membrane
- Cell wall

70. Penicillium belongs to:

- Algae
- Fungi
- Fern
- Virus

71. Which one of the following is caused by acid rain:

- Greenhouse effect
- Stone cancer
- Damage to ozone layer

- Denitrification of soil

72. Seed is developed from:

- Ovule
- Ovary
- Flower
- Plant

73. The basic unit of inheritance is:

- Chromosome
- Gene
- Gametes
- Nucleus

74. The part of brain associated with the intelligence, memory, etc. is:

- Cerebrum
- Cerebellum
- Pons
- Medulla Oblongata

75. Movement of Euglena occurs by:

- Cilia
- Flagella
- pseudopodia
- limbs

76. Plants gain weight due to:

- Photosynthesis
- Transpiration
- Respiration
- None of them

77. Nephrons are connected with:

- Respiratory system
- Circulatory system
- Nervous system
- Excretory system

78. Which of the following is gill breather?

- Fish
- Frog
- Whale
- Turtle

79. They are exclusively marine:

- protozoa
- Echinodermata
- Annelida
- Mollusca

80. Whole of the life sustaining area of earth:

- Biosphere
- Atmosphere
- Lithosphere
- hydrosphere

81. CO₂ from air is taken by leaf through:

- Stomata
- Epidermis
- Mesophyll
- Lenticle

SECTION "B" (SHORT-ANSWER QUESTIONS)

ZOOLOGY

NOTE: Attempt 7 questions from this section.

29. Define bio-chemistry, bio-physics and biometry.

30. What are receptors? Name receptor organs of sight, sound, odour and taste.

31. Write three characteristics of class Reptilian.

32. Define joints. Describe any two defects of skeletal system.

33. What do you mean by species? Write scientific name and classification of man or frog.

34. Draw a neat and labeled diagram of "Brain of frog" OR Ventral view of heart of frog".

35. Define parasite. Name two parasites and write phylum to which they belong.
36. Write the role of skin in excretion.
37. Define ecology, population and community.
38. What is variation? Write two causes of variation.

BOOTANY

NOTE: Attempt 7 questions from this section.

39. What is Chlamydomonas? Describe its properties.
40. Write any three differences between bryophyte and tracheophyte.
41. Define light reaction and dark reaction.
42. Draw a neat and labeled diagram of structure of Bacteriophage.
43. Write a short note on cell wall.
44. Define a biotechnology. Write one use of bacteria and fungi.
45. Briefly describe any one type of plant tissues.
46. Define fertilization and double fertilization.
47. Write a note on insectivores' plants.
48. What are chromosomes? Write down the number of chromosomes in a cell of: Man, frog, Onion, garden pea.

SECTION "C" (DETAILED-ANSWER QUESTIONS)

ZOOLOGY

NOTE: Attempt 2 questions from this section.

49. Draw a neat and labeled diagram of the human respiratory organs.
50. Define neurons. Describe the structure of neuron in detail. Draw labeled diagram also.
51. What are the components of blood? Describe each of them in detail with labeled diagram.

SECTION "C" (DETAILED-ANSWER QUESTIONS)

BOOTANY

NOTE: Attempt 2 questions from this section.

52. Define asexual reproduction in plants. Describe any three methods of asexual reproduction in detail.
53. Draw a neat and labeled diagram of T.S. of the stem of sun flower.
54. Describe an experiment to prove that or chlorophyll is necessary for photosynthesis. Draw its labeled diagram.

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