

9TH CLASS BIOLOGY

FULL BOOK MCQS (ENGLISH MEDIUM)

WITH
ANSWERS
KEY



Multiple Choice Questions

- Members of the same species living in the same place at the same time make a;
(a) Habitat (b) Biosphere
(c) Community (d) Population
- If a scientist is studying the methods of inserting human insuline gene in bacteria, which branch of biology may this be?
(a) Anatomy (b) Physiology
(c) Biotechnology (d) Pharmacology
- Which one will be the correct sequence of the levels of organization of life?
(a) Cell, organelle, molecule, organ, tissue, organ system, individual
(b) Molecule, tissue, organelle, cell, organ system, organ, individual
(c) Molecule, organelle, cell, tissue, organ, organ system, individual
(d) Organ system, organ, tissue, cell, molecule, organelle, individual
- Which of these major bioelements is the highest percentage in protoplasm?
(a) Carbon (b) Hydrogen
(c) Oxygen (d) Nitrogen
- Which of the following group include organisms all of which are absorptive in their nutrition?
(a) Protists (b) Animals
(c) Bacteria (d) Fungi
- Similar cells organized into groups and performing same functions, are known as:
(a) Organelle (b) Tissue
(c) Organ (d) Organ System
- Which of these tissues also makes the glandular tissue in animals?
(a) Epithelial tissue (b) Muscular tissue
(c) Connective tissue (d) Nervous tissue
- The level of organization that is less definite in plants is:
(a) Tissue level (b) Organ level
(c) Organ system level
(d) Individual level
- What is true about volvox?
(a) Unicellular prokaryote
(b) Unicellular eukaryote
(c) Colonial eukaryote
(d) Multicellular eukaryote
- When we study the feeding relations among different animal species of a forest, at what level of organization we are studying?
(a) Individual (b) Population
(c) Community (d) Biosphere
- _____ knowledge is the common heritage of mankind.
(a) Scientific (b) Islamic
(c) Biological (d) None of these
- The example of colonial organism is:-
(a) Amoeba (b) Volvox
(c) Frog (d) Mustard plant
- The example of micromolecule:-
(a) Starch (b) Protein
(c) Fats (d) Water
- Microscopic study of tissues is called:-
(a) Physiology (b) Morphology
(c) Histology (d) Anatomy

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15. Which one is major biological issues today?
(a) Infectious diseases
(b) Addictive drugs
(c) Environmental pollution
(d) All of these
16. Organisms of a species living in a particular habitat at a particular time:
(a) Population (b) Community
(c) Individual (d) None of these
17. Study of insects is called:
(a) Immunology (b) Entomology
(c) Genetics (d) Ecology
18. Water makes _____ of the composition of protoplasm of all living things.
(a) 60% (b) 70%
(c) 50-60% (d) 60-70%
19. The number of bioelements is:
(a) 92 (b) 6 (c) 16 (d) 10
20. How much nitrogen is present in making body mass of a living organism?
(a) 10% (b) 3%
(c) 1% (d) 18%
21. Which of the following are supporting tissues in animals?
(a) Nervous (b) Epithelial
(c) Muscular (d) Connective
22. The author of "Al-Qanun-fial-Tib" is:
(a) Jabir Bin Hayan
(b) Abdul Malik Asmai
(c) Bu Ali Sina (d) None
23. Which of the following is not unicellular organism?
(a) Amoeba (b) Paramecium
(c) Frog (d) Euglena
24. Which one are not vegetative organs?
(a) Roots (b) Stems
(c) Leaves (d) Flowers
25. Scientific name of frog is:
(a) Rana tigrina
(b) Rosa indica
(c) Rana Tagrina
(d) Brassica Campestris
26. Forest community is an example of _____ community.
(a) Simple (b) Complex
(c) Coordinated (d) None
27. The study of internal structure is called:
(a) Anatomy (b) Histology
(c) Entomology (d) Taxonomy
28. As a bioelement, the percentage of carbon is:
(a) 18% (b) 10%
(c) 2% (d) 3%
29. Biology is a word of which language?
(a) Latin (b) Arabic
(c) Greek (d) English
30. The reproductive part of plant is:
(a) Stem (b) Leaves
(c) Root (d) Flower
31. Stomach is an example of:
(a) Tissue level
(b) Organ level
(c) Organ system level
(d) None

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Answers											
1.	d	6.	B	11.	a	16.	a	21.	d	26.	b
2.	c	7.	A	12.	b	17.	b	22.	c	27.	a
3.	c	8.	C	13.	d	18.	d	23.	c	28.	a
4.	c	9.	C	14.	c	19.	c	24.	d	29.	c
5.	d	10.	c	15.	d	20.	b	25.	a	30.	d



Multiple Choice Questions

- Which one of the following is correct sequence in biological method?
(a) Observations, Hypothesis, Law, Theory
(b) Hypothesis, Observations, Deduction, Experimentation
(c) Observations, Hypothesis, Deduction, Experimentation
(d) Law, Theory, Deduction, Observations
- Which one of these is not a characteristic of a hypothesis?
(a) Must be consistent with all available data
(b) Must be testable
(c) Must be correct
(d) Must make predictions
- At which point, is a biologist most likely to use reasoning?
(a) While taking observations
(b) During hypothesis formulation
(c) During data organization
(d) None of the above.
- A hypothesis must be testable to be scientifically valid. Being testable means that:
(a) Some observations could prove that hypothesis is incorrect
(b) Only a controlled experiment can indicate whether the hypothesis is correct or incorrect
(c) The hypothesis is proven wrong
(d) The opposite of hypothesis is tested and proven wrong
- What would be the best experimental design for testing a hypothesis that bean plants require sodium?
(a) Measure the amount of sodium in a few bean plants
(b) Grow bean plants with and without sodium
(c) Look for sodium in leaf tissues
(d) Analyze root contents for sodium
- A gardener sees a large snake nearby. He knows generally snakes sting, so



- the gardener ran away. The gardener did which of the following?
- (a) Used reasoning
 - (b) Used observation
 - (c) Constructed a theory
 - (d) Tested a hypothesis
7. A scientific theory has which of the following properties?
- (a) It agrees with the available evidence
 - (b) It cannot be rejected
 - (c) It has been absolutely proven
 - (d) It does not need to be altered in the light of new evidences
8. Experimentation is only a step of the scientific process but it is very important step because it always:
- (a) Gives the biologist a correct result
 - (b) Allows rejection of some alternative hypothesis
 - (c) Ensures that hypothesis can be confirmed with certainty
 - (d) Give scientists a chance to work in the laboratory
9. You are testing a hypothesis; "students learn more if they drink tea before sitting for study". Your 20 experimental students drink tea before study;
- You test their learning by giving question. Your 20 students of the control group should have all experimental conditions identical to the experimental group EXCEPT that;
- (a) They should take tea
 - (b) They should take tea before as well as during study
 - (c) They should not take tea before studying
 - (d) They should not sit for studying
10. When A.F.A King did work on Malaria?
- (a) 1880
 - (b) 1881
 - (c) 1882
 - (d) 1883
11. The scientist who observed Plasmodium first time in human blood is:
- (a) Aristotle
 - (b) Bu-Ali-Sina
 - (c) Laveran
 - (d) None of these
12. Which mosquito spread malaria in birds.
- (a) Anopheles
 - (b) Culex
 - (c) Anopheles & Culex
 - (d) None of these
13. Five senses are involved in:
- (a) Hypothesis
 - (b) Observations
 - (c) Deduction
 - (d) Experiment
14. Logical consequence of hypothesis is:
- (a) Experiment
 - (b) Deduction
 - (c) Observation
 - (d) theory
15. Which is the quantitative observation
- (a) colour
 - (b) smell
 - (c) beauty
 - (d) height
16. Which of the followings is the symptom of malaria?
- (a) Chills
 - (b) Fevers
 - (c) Recurring attacks
 - (d) All
17. Quinine is obtained from:
- (a) quina - quina
 - (b) Deodar
 - (c) Cinchona
 - (d) shisham
18. Bark of quina – quina was imported from:
- (a) Europe
 - (b) America
 - (c) Spain
 - (d) India

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19. Plasmodium was first seen by:

- (a) Ross (b) A.F.A.King
(c) Laveran (d) None

20. Plasmodium was named by:

- (a) Ross (b) A.F.A.King
(c) Laveran (d) None

21. Who performed experiments on sparrow?

- (a) Ross (b) A.F.A.King

(c) Laveran (d) None

22. No of steps of biological method are:

- (a) Seven (b) Six
(c) Two (d) Eight

(Lahore board 2011 G II)

23. A scientific law is an irrefutable:

- (a) observation (b) Theory
(c) Principle (d) None of these

(Lahore board 2011 G I)

Answers

1.	<u>c</u>	3.	<u>b</u>	5.	<u>b</u>	7.	<u>c</u>	9.	<u>c</u>	11.	<u>c</u>
2.	<u>b</u>	4.	<u>b</u>	6.	<u>a</u>	8.	<u>c</u>	10.	<u>d</u>	12.	<u>b</u>
13.	<u>b</u>	14.	<u>b</u>	15.	<u>d</u>	16.	<u>d</u>	17.	<u>c</u>	18.	<u>b</u>
19.	<u>c</u>	20.	<u>c</u>	21.	<u>a</u>	22.	<u>a</u>	23.	<u>b</u>		



Multiple Choice Questions

1. Genus of Pea is;
(a) Homo (b) Amanita
(c) Escherichia (d) Pisum
2. Three kingdom Classification system was proposed in:
(a) 1866 (b) 1937
(c) 1688 (d) 1788
3. Which is composed of only protein?
(a) Viruses (b) Prions
(c) Viroids (d) 'b' and 'c'
4. Important cause of species extinctions is:
(a) Habitat loss
(b) Deforestation
(c) Over population
(d) Both 'a' and 'b'
5. Which one is the national bird of Pakistan?
(a) Pigeon (b) Ostrich
(c) Crow (d) Chakor
6. Cutting down of trees is known as:
(a) Habitat loss (b) Deforestation
(c) Extinction (d) None of these
7. Which one is acellular?
(a) Bacteria (b) Fungi
(c) Cyanobacteria (d) Viruses
8. Cell wall of fungi is made up of:
(a) Cellulose (b) Amino acid
(c) Chitin (d) 'a' and 'b'
9. Basic unit of classification is:
(a) Genus (b) Order
(c) Family (d) Species
10. Classification means the grouping of organisms on the basis of:
(a) How they feed
(b) The features they have in common
(c) How they respire
(d) How they can survive
11. The kingdom protista includes:
(a) Unicellular and simple multicellular organisms with membrane bounded nucleus
(b) True multicellular organisms with no distinct membrane bounded nucleus.
(c) True multicellular organisms with membrane bounded nucleus.
(d) Unicellular organisms with no distinct membrane bounded nucleus.
12. Viruses are not classified in any kingdom because:
(a) They are too poorly understood
(b) They are too small
(c) Their genetics cannot be determined
(d) They are not considered organisms
13. Viruses are assigned to the kingdom:
(a) Monera (b) Protista
(c) Fungi (d) None of above
14. A related group of genera comprises:
(a) An order (b) A family
(c) A class (d) A phylum
15. In which kingdom, would you classify unicellular eukaryotes?
(a) Fungi and Protists
(b) Fungi and Monera
(c) Only Protista
(d) Only Fungi

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16. In binomial nomenclature, the first letter of the _____ name is capitalized.
- (a) Family (b) Class
(c) Species (d) Genus
17. Which one of the following sequences shows the correct hierarchy of classification, going from the smaller to the bigger group?
- (a) Kingdom, Phylum, Order, Class, Family, Genus, Species
(b) Kingdom, Phylum, Class, Order, Family, Genus, Species
(c) Genus, Species, Kingdom, Phylum, Order, Class, Family
(d) Species, Genus, Family, Order, Class Phylum, Kingdom.
18. Which of the following may be the correct way of writing the scientific name of an organism?
- (a) *Canis lupis* (b) *Saccharum*
(c) Grant's gazelle (d) *E. Coli*
19. A certain organism is multicellular, adapted for photosynthesis and has multicellular sex organs. To which kingdom does it belong?
- (a) Animalia (b) Fungi
(c) Plantae (d) Protista
20. Species that are in same _____ are more closely related than species that are in the same _____.
- (a) Phylum....Class
(b) Family.....Order
(c) Class.....Order
(d) Family....Genus
21. When a last member of a particular species dies, the species is said to be _____.
- (a) Established (b) Extinct
(c) Threatened (d) Endangered
(Lahore board 2011 G I)
22. In which season Houbara bustard migrates to Pakistan and settles here?
- (a) Summer (b) Spring
(c) Autumn (d) Winter
23. Who published important work on plants classification?
- (a) John Ray
(b) Andrea Caesalpino
(c) Tournefort
(d) Augustus Rivinus
24. What is the greatest threat to biodiversity on this planet?
- (a) Habitat loss (b) deforestation
(c) overpopulation (d) b and c
25. Who divided living organisms into three kingdom Classification System?
- (a) Linnaeus (b) Aristotle
(c) John Ray (d) Hackel
26. How many children born in each minute in the world?
- (a) 100 (b) 150
(c) 180 (d) 200
27. How many kinds of organisms inhabit the earth?
- (a) 1 million (b) 5 million
(c) 10 million (d) 10 billion
28. Biodiversity means:
- (a) Variety within a species
(b) Variety among the species
(c) Variety within a species and among the species

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- (d) None of these
29. The bio diversity of any region depends on:
- (a) Climate
 - (b) Altitude
 - (c) Soil and other species
 - (d) All of these
30. Biodiversity is richer in:
- (a) Tropics
 - (b) Temperate regions
 - (c) Polar regions
 - (d) Desert
31. Biodiversity is the source of:
- (a) Food
 - (b) Fibres
 - (c) Rubber and oil
 - (d) All of these
32. The kinds of animals found on Earth:
- (a) 0.5 million
 - (b) 1.0 million
 - (c) 1.5 million
 - (d) 2 million
33. The kinds of plants found on Earth:
- (a) 0.1 million
 - (b) 0.3 million
 - (c) 0.5 million
 - (d) 1.0 million
34. The branch of biology which deals with classification is?
- (a) Taxonomy
 - (b) Systematic
 - (c) Botany
 - (d) Genetics
35. On what basis, organisms have been classified by biologists?
- (a) Similarities
 - (b) differences
 - (c) both a and b
 - (d) Randomly
36. It is a group of related phyla:
- (a) Kingdom
 - (b) Class
 - (c) Order
 - (d) Family
37. It is a group of related classes:
- (a) Phylum
 - (b) Class
 - (c) Family
 - (d) Species
38. It is a group of related orders:
- (a) Genus
 - (b) Family
 - (c) Species
 - (d) Class
39. It is a group of related genera:
- (a) Species
 - (b) Family
 - (c) Order
 - (d) Class
40. Which one is the lowest taxon of classification?
- (a) Genus
 - (b) Order
 - (c) Species
 - (d) Phylum
41. The scientific name of human being is:
- (a) *Homo sapiens*
 - (b) *Pisum sativum*
 - (c) *Amanita muscaria*
 - (d) *E. coli*
42. The class of man is:
- (a) Insecta
 - (b) Mammalia
 - (c) Magnoliopsida
 - (d) Proteobacteria
43. The kingdom of bacteria is.
- (a) Fungi
 - (b) Monera
 - (c) Protista
 - (d) Plantae
44. Who suggested the first system of classification of organisms?
- (a) Al-Jahiz
 - (b) Aristotle
 - (c) John Ray
 - (d) Averroes
45. In which language, Ibn-Rushd translated the Aristotle's book "de Anima"?
- (a) Ibrani
 - (b) Arabic
 - (c) Hindi
 - (d) Persian
46. Who introduced Taxon of 'order' in classification?
- (a) Caesalpino
 - (b) John Ray
 - (c) Tournefort
 - (d) Rivinus
47. Modern classification (binomial nomenclature) is based on the work of:
- (a) Caesalpino
 - (b) John Ray

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- (c) Tournefort
(d) Carolous Linnaeus
48. Who proposed the kingdom protista?
(a) Ernst Hackel (b) Robert Whittaker
(c) Margulis (d) Schwartz
49. The terms "procariotique" and "eucariotique" were introduced by E. Chatton in:
(a) 1866 (b) 1937
(c) 1988 (d) 1990
50. Five kingdom classification system was first introduced by:
(a) Margulis (b) Hackel
(c) Whittaker (d) Linnaeus
51. All prokaryotic organisms are included in kingdom:
(a) Protista (b) Monera
(c) Fungi (d) Plantae
52. Which one is not related to protista?
(a) Algae (b) Protozoans
(c) Bacteria
(d) Fungi like organisms
53. Which kingdom includes eukaryotic, multicellular and absorptive heterotrophs?
(a) Monera (b) Protista
(c) Fungi (d) Plantae
54. Which of the following character is not related to Animalia?
(a) Eukaryotic (b) Multicellular
(c) Heterotrophs (d) Autotrophs
55. Which one of the following is without nuclear membrane?
(a) Animalia (b) Plantae
(c) Monera (d) Protista
56. Cellular organization is absent in:
(a) Viruses (b) Bacteria
(c) Algae (d) Protozoans
57. The body of which organism consists only of RNA?
(a) Prions (b) Viroids
(c) Viruses (d) Algae
58. The species which will become extinct in future:
(a) Threatened (b) Endangered
(c) Extinct (d) All of these
59. How many people live on earth today?
(a) 100 million (b) 300 million
(c) 400 million (d) 600 million
60. It is the national animal of Pakistan.
(a) Dolphin (b) Ibex
(c) Markhor (d) Camel
61. The large omnivorous bird that flies to Pakistan in winter from former Soviet territory is:
(a) Chakor (b) Houbara bustard
(c) Kiwi (d) Ostrich
62. Forests are the source of:
(a) Drugs (b) Fuel
(c) Timber (d) All of these
63. Deforestation results in.
(a) Soil erosions
(b) Increased water storage capacity of dams
(c) More humidity
(d) More clouds
64. The lowest taxon among the following is:
(a) Genera (b) Class
(c) Order (d) Families
65. Euglena is included in kingdom:
(a) Monera (b) Protista
(c) Fungi (d) Plantae

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66. A species is a group of natural population which can:
 (a) Interbreed and produce offsprings
 (b) Interbreed in nature and produce offspring
 (c) Interbreed and produce fertile offspring
 (d) Interbreed in nature and produce fertile offsprings
67. The need of third kingdom protista raised due to:
 (a) presence of certain unicellular organisms
 (b) presence of plant like character
 (c) presence of animal like characters
 (d) presence of both animal and plant like characters
68. Fungi cannot be placed in plantae kingdom because:
 (a) Fungi lack cell wall
 (b) fungi lack root, stem and leave
 (c) Fungi lack chlorophyll
 (d) Fungi do not store food
69. Robert Whittaker selected which one of the following as principle for the

formation of five kingdom classification system?

- (a) Mode of locomotion
 (b) Mode of nutrition
 (c) Mode of reproduction
 (d) Mode of respiration
70. The five kingdom classification system is not based on:
 (a) Mode of nutrition (b) Cytology
 (c) Genetics (d) Morphology
71. It is at the risk of becoming extinct because few members are left:
 (a) Extinct (b) Threatened
 (c) Vulnerable (d) Endangered
72. Marco polo Sheep is found in:
 (a) Khunjerab National Park
 (b) plains
 (c) India
 (d) Indus Valley
73. Members of the same species living in the same place is called:
 (a) Habitat (b) Biosphere
 (c) Community (d) Population
 (Lahore board 2011 G I)

Answers

1.	d	11.	a	21.	b	31.	d	41.	a	51.	b	61.	B	71.	d
2.	a	12.	d	22.	d	32.	c	42.	b	52.	c	62.	D	72.	a
3.	b	13.	d	23.	a	33.	c	43.	b	53.	c	63.	A	73.	d
4.	a	14.	b	24.	a	34.	a	44.	b	54.	d	64.	A		
5.	d	15.	c	25.	d	35.	c	45.	b	55.	c	65.	B		
6.	b	16.	d	26.	c	36.	a	46.	d	56.	a	66.	D		
7.	d	17.	d	27.	c	37.	a	47.	d	57.	b	67.	D		

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8.	c	18.	a	28.	c	38.	d	48.	a	58.	b	68.	C		
9.	d	19.	c	29.	d	39.	b	49.	b	59.	d	69.	B		
10.	b	20.	b	30.	a	40.	c	50.	c	60.	c	70.	D		



Multiple Choice Questions

- Which of these clues would tell you whether a cell is prokaryotic or eukaryotic?
 - The presence or absence of a cell wall.
 - Whether or not the cell is partitioned by internal membranes.
 - The presence or absence of ribosomes.
 - Whether or not the cell contains DNA
- There are _____ micrometers (μm) in one millimeter (mm).
 - 10
 - 100
 - 1000
 - $\frac{1}{1000000}$
- The plasma membrane does all of these except _____.
 - Contains the hereditary material.
 - Acts as a boundary or border for the cytoplasm.
 - Regulates passage of material in and out of the cell.
 - Functions in the recognition of cell.
- Which of these material is not a component of the plasma membrane?

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- (a) Lipids (b) Carbohydrates
(c) Proteins (d) DNA
5. Cell walls are found in these organisms, except for _____.
(a) Plants (b) Animals
(c) Bacteria (d) Fungi
6. The _____ is a major component of plant cell walls.
(a) Chitin (b) Peptidoglycan
(c) Cellulose (d) Cholesterol
7. Plant cells have _____ and _____ which are not present in animal cells.
(a) Mitochondria, Chloroplasts
(b) Cell membranes, cell walls
(c) Chloroplasts, nucleus
(d) Chloroplasts, cell wall
8. The _____ is the membrane-enclosed structure in eukaryotic cells that contains the DNA of the cell.
(a) Mitochondrion (b) Chloroplast
(c) Nucleolus (d) Nucleus
9. Ribosomes are constructed in the _____.
(a) Endoplasmic reticulum
(b) Nucleoid
(c) Nucleolus (d) Nuclear Pore
10. Rough endoplasmic reticulum is the area in a cell where _____ are synthesized.
(a) Polysaccharides (b) Proteins
(c) Lipids (d) DNA
11. Smooth endoplasmic reticulum is the area in a cell where _____ are synthesized.
(a) Polysaccharides (b) Proteins
(c) Lipids (d) DNA
12. The mitochondrion function in
(a) Lipid storage (b) Protein synthesis
(c) Photosynthesis
(d) Cellular respiration
13. The thin extensions of the inner mitochondrial membrane are known as _____.
(a) Cristae (b) Matrix
(c) Thylakoids (d) Stroma
14. The chloroplast functions in _____.
(a) ATP synthesis (b) Protein synthesis
(c) Photosynthesis
(d) DNA replication
15. Which of these cellular organelles have their own DNA?
(a) Chloroplast (b) Nucleus
(c) Mitochondrion (d) All of these
16. Who described cells first?
(a) Robert Hooke (b) Leeuwenhook
(c) Robert Brown
(d) Schleiden & Schwann
17. Which one are the sites of protein synthesis?
(a) Nucleus (b) Mitochondria
(c) Endoplasmic Reticulum
(d) Ribosomes
18. The smallest cells of bacteria are called:
(a) Plasmodesmata
(b) Plasma membrane
(c) Mycoplasmas (d) Plasmolysis
19. Xylem and phloem tissues are examples of:

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- (a) Simple Tissues
(b) Compound tissues
(c) Meristematic Tissues
(d) None
20. Cellular eating is called:
(a) Pinocytosis (b) Endocytosis
(c) Phagocytosis (d) None
21. Which of the following movement requires energy in the form of ATP?
(a) Diffusion (b) Osmosis
(c) Active transport
(d) Facilitated diffusion
(Lahore board 2011 G II)
22. The example of bulkiest cells are:
(a) Bacteria (b) Bird eggs
(c) Muscle cells (d) Nerve cells
23. The example of long cells are:
(a) Bird eggs (b) Muscle cells
(c) Nerve cells
(d) Muscle cells & nerve cells
24. Human body is made up of how many types of cells?
(a) 200 (b) 300
(c) 400 (d) 500
25. Who reported that all animal tissues are also composed of individual cells?
(a) Robert Hooke
(b) Lorenz Oken (c) Robert Brown
(d) Schwann
26. Nucleus in the cell was discovered by:
(a) Robert Hooke (b) Lorenz Oken
(c) Robert Brown (d) Schwann
27. Cell theory was proposed by:
(a) Robert Hooke (b) Schwann
(c) Schleiden (d) Both a and b
28. Concept of "Omnis cellula e cellula" was given by:
(a) Robert Hooke (b) Lorenz Oken
(c) Robert Brown (d) Virchow
29. The cells used for transport of impulses are:
(a) muscle cells (b) nerve cells
(c) gland cells (d) RBC
30. The cells used for secretion of hormones are:
(a) muscle cells (b) nerve cells
(c) gland cells (d) RBCs
31. The cells used for support in plants are:
(a) Sclerenchymatous cells
(b) Collenchymatous cells
(c) Parenchymatous cells
(d) Both a and b
32. The cells used for photosynthesis in plants are:
(a) Sclerenchymatous cells
(b) Ground tissues
(c) Phloem tissues
(d) Meristematic cells
33. The cells used for storage in plants are:
(a) Sclerenchymatous cells
(b) xylem tissues
(c) Parenchymatous cells
(d) Meristematic cells
34. The cells which can divide in plants are:
(a) Sclerenchymatous cells
(b) Collenchymatous cells
(c) Parenchymatous cells
(d) Meristematic cells
35. The resolution of human eye is:
(a) 1.0 (b) 2.0
(c) 0.1 (d) 0.2

CHAPTER # 4 - MCQS



Chapter Biology 9th

36. Magnification of electron microscope is:
(a) 2500 x (b) 25000 x
(c) 250000 x (d) None
37. The movement of molecules against the concentration gradient is called:
(a) Diffusion
(b) Passive transport
(c) active transport
(d) Endocytosis
38. Cellulose is present in:
(a) Primary wall
(b) Secondary wall
(c) Middle lamella
(d) None of the above
39. Lignin is present in:
(a) Primary wall
(b) Secondary wall
(c) Middle lamella
(d) None of the above
40. Lysosomes were discovered by:
(a) Sanger (b) Palade
(c) De Duve (d) Brown
41. The inner chamber of the mitochondria contains a fluid is called:
(a) Cristae (b) Matirx
(c) F₁ particles (d) None of the above
42. Which of the following are colourless and store starch, proteins and lipids?
(a) Chloroplasts
(b) Chromoplasts
(c) Leucoplasts
(d) None
43. The stacked membranous structure in the chloroplast is
(a) Thylakoids (b) Stroma
(c) Grana (d) Intergranum
44. The membranous structure in the chloroplast is:
(a) Thylakoids (b) Stroma
(c) Grana (d) Intergranum
45. The fluid within the chloroplast is:
(a) Thylakoids (b) Stroma
(c) Grana (d) Intergranum
46. The plastids present in fruits are:
(a) chloroplasts (b) Chromoplasts
(c) Leucoplasts (d) All of the above
47. The plastids present in roots are:
(a) chloroplasts (b) Chromoplasts
(c) Leucoplasts (d) All of the above
48. The structure present in the prokaryotes is:
(a) Mithochoridria (b) Ribosomes
(c) ER (d) Golgi bodies
49. Responsibility of protein synthesis is:
(a) Plastids (b) Ribosomes
(c) Golgi apparatus (d) Lysosomes
(Lahore board 2011 G II)
50. Polymer of amino acid and sugar is:
(a) Peptidoglycan (b) Glycolipids
(c) Phospholipids (d) Glycogen
(Lahore board 2011 G II)
51. Xylem tissues consist of vessel elements and:
(a) Sieve tube (b) Tracheids
(c) Mesophyll (d) Fibre cell
(Lahore board 2011 G I)
52. Primary cell wall of plants has a chemical:
(a) Cellulose (b) Peptidoglycan
(c) Glycolipids (d) Proteins
(Lahore board 2011 G I)

CHAPTER # 4 - MCQS

Chapter Biology 9th



Answers

1.	b	4.	d	7.	d	10.	b	13.	a	16.	a	19.	B	22.	B
2.	c	5.	b	8.	d	11.	c	14.	c	17.	d	20.	C	23.	D
3.	a	6.	c	9.	c	12.	d	15.	c	18.	c	21.	C	24.	A
25	d	26	c	27	d	28	d	29	b	30	c	31	d	32	B
33	c	34	d	35	c	36	c	37	c	38	a	39	b	40	C
41	b	42	c	43	c	44	a	45	b	46	b	47	c	48	B
49	b	50	a	51	b	52	a								



Multiple Choice Questions

1. In which stage of the cell cycle each chromosome is duplicated and so it consists of two chromatids?
(a) G1 (b) S
(c) M (d) G2
2. During which phase of mitosis spindles are formed?
(a) G2 (b) Interphase
(c) Prophase (d) Metaphase
3. In which stage of the cell cycle, the cell is preparing enzyme for chromosome replication?
(a) G1 (b) G2
(c) S (d) M
4. Which of the following stage of cell division is very different for animal and plant cells?
(a) Telophase (b) Metaphase
(c) Anaphase (d) Cytokinesis
5. Prior to cell division, each chromosome replicates or duplicates its genetic material, the products are connected by a centromere and are called;
(a) Sister chromosomes
(b) Homologous chromosomes
(c) Non-sister chromatids
(d) Sister chromatids
6. The process of mitosis ensures that:



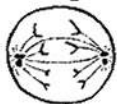
- (a) Each new cell is genetically different from its parent.
 (b) Each new cell receives the proper number of chromosomes.
 (c) Cells will divide at the appropriate time
 (d) Chromosomes replicate without errors.
7. Cytokinesis in a plant cell is characterized by;
 (a) The equal division of homologous chromosomes.
 (b) A pinching off of the cell membrane to divide the cell.
 (c) The formation of a cell plate in the cytoplasm
 (d) The movement of the chromosomes from the metaphase plate.
8. Which of the following is unique to mitosis and not a part of meiosis?
 (a) Homologous chromosomes pair forming bivalents.
 (b) Homologous chromosomes cross over.
 (c) Chromosome pairs are broken during anaphase
 (d) Chromatids separate during anaphase
9. Which event distinguishes meiosis from mitosis?
 (a) Condensation of chromosomes
 (b) Loss of the nuclear membrane
 (c) Formation of metaphase plate.
 (d) Pairing of homologous chromosomes.
10. In which stage of the cell cycle most cells spend their lives?
 (a) Prophase (b) Metaphase (c) Interphase (d) Telophase
11. Which of the following distinguishes meiosis from mitosis?
 (a) The chromosome number is reduced.
 (b) Chromosomes undergo crossing over.
 (c) Daughter cells are genetically different from the parent cell.
 (d) All of the above.
12. For mitosis, the chromosomes of the cells is duplicated during interphase. When do the chromosomes duplicated for meiosis?
 (a) Before meiosis I
 (b) Before meiosis II
 (c) During Meiosis-I
 (d) Do not duplicate
13. Find the correct statement.
 (a) Homologous chromosomes form pairs during mitosis.
 (b) Chromosomes do not duplicate in the interphase preceding meiosis-I.
 (c) Homologous chromosomes form pairs during meiosis but not mitosis.
 (d) Spindles are not required during meiosis.
14. What reason would you suggest for the fact that the total DNA content of each daughter cell is reduced during meiosis?
 (a) Chromosomes do not replicate during the interphase before meiosis I.
 (b) Chromosomes do not duplicate between meiosis I and II.
 (c) Half of the chromosomes from each gamete are broken.
 (d) Sister chromatids separate during anaphase of meiosis I.

CHAPTER # 5 - MCQS

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15. If you observe a cell like this one, what phase of mitosis is it?



- (a) Anaphase (b) Telophase
(c) Metaphase (d) Prophase
16. Specific enzymes are synthesized by:
(a) G_0 (b) G_2
(c) S phase (d) G_1
17. The phase which can exist for life is:
(a) G_0 (b) G_2
(c) S phase (d) G_1
18. Chromosomes become double during:
(a) G_2 (b) G_0
(c) G_1 (d) S phase
19. The longest phase is:
(a) Mitotic phase (b) Meiosis
(c) Cell cycle (d) Interphase
20. Type of spindle fibre which attaches the chromosomes is called:
(a) Kinetochore (b) Non kinetochore
(c) Both a and b (d) Centromere
21. The chromosomes are attached in the equator of spindle in:
(a) Prophase (b) Telophase
(c) Anaphase (d) Metaphase
22. Chromatids get separated from each other during:
(a) Telophase (b) Prophase
(c) Anaphase (d) Metaphase
23. Chromatids are condensed during:
(a) Anaphase (b) Telophase
(c) Prophase (d) Metaphase
24. Uncoiling of chromosomes take place during:
(a) Prophase (b) Telophase
(c) Anaphase (d) Metaphase
25. The division of nucleus is:

- (a) Mitosis (b) Karyokinesis
(c) Cytokinesis (d) Meiosis
26. Chromosomes are not visible during:
(a) Prophase (b) Interphase
(c) Anaphase (d) Metaphase
27. The condensation of chromosomes is completed during:
(a) Telophase (b) Prophase
(c) Anaphase (d) Metaphase
28. Cytokinesis in animals take place by
(a) Furrow (b) Phragmoplast
(c) Telophase (d) None of the above
29. Which of the following structure is absent in animals?
(a) spindle (b) centrioles
(c) Chromatids (d) Phragmoplast
30. Cells of which of the followings are called cancer cells?
(a) Malignant tumor (b) Benign tumor
(c) both a and b (d) None of the above
31. Which of the followings stage is similar in mitosis and meiosis ?
(a) Prophase (b) Anaphase
(c) Metaphase (d) Telophase
32. The exchange of part of chromatids is:
(a) Chiasmata (b) Linkage
(c) crossing over
(d) None of the above
33. The cell death due to tissue damage is:
(a) Apoptosis (b) Necrosis
(c) Metastasis (d) Synapsis
34. Necrosis is:
(a) Division of cells
(b) Suicide of cells
(c) Cell death by tissue damage
(d) Weakness of cells
35. Meiosis discovered in: (Lahore board 2011 G II)
(a) 1876 (b) 1879
(c) 1960 (d) 1850

CHAPTER # 5 - MCQS

Chapter Biology 9th



36. Hydra reproduces asexually by:

- (a) Cutting (b) Grafting
(c) Budding (d) Binary fission
(Lahore board 2011 G I)

37. In which phase, cell increases the number of its many organelles and grows in size:

- (a) G1 (b) S phase
(c) G2 (d) G0
(Lahore board 2011 G I)

Answers

1.	b	11.	d	21.	d	31.	d	
2.	c	12.	a	22.	c	32.	c	
3.	a	13.	c	23.	c	33.	b	
4.	d	14.	b	24.	b	34.	c	
5.	d	15.	a	25.	b	35.	a	
6.	b	16.	d	26.	b	36.	c	
7.	c	17.	a	27.	b	37.	a	
8.	d	18.	d	28.	a			
9.	d	19.	d	29.	d			
10.	c	20.	a	30.	A			



Multiple Choice Questions

1. What is TRUE about enzymes?
 - (a) They make biochemical reactions to proceed spontaneously
 - (b) They lower the activation energy of a reaction
 - (c) They are not very specific in their choice of substrates
 - (d) They are needed in large quantities
2. To what category of molecules do enzymes belong?
 - (a) Carbohydrates
 - (b) Lipids
 - (c) Nucleic acids
 - (d) Proteins

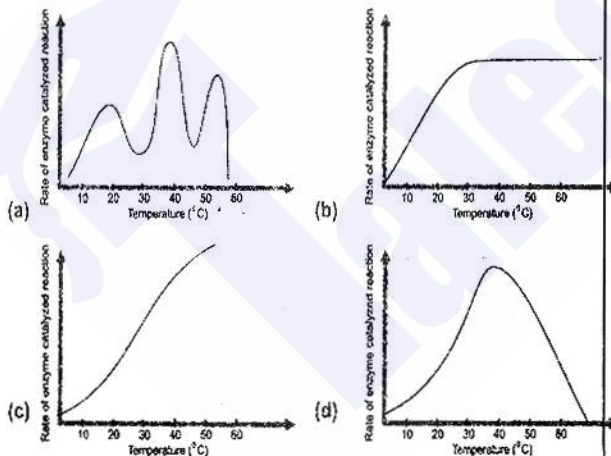
(Lahore board 2011 G D)
3. What is true about cofactors?
 - a) Break hydrogen bonds in proteins
 - b) Help facilitate enzyme activity
 - c) Increase activation energy

CHAPTER # 6 - MCQS



Chapter Biology 9th

- d) Are composed of proteins
4. Prosthetic groups are;
- (a) Required by all enzymes
 - (b) Loosely attached with enzymes
 - (c) Proteins in nature
 - (d) Tightly bound to enzyme
5. When we add more substrate to an already occurring enzymatic reaction and there is no increase in the rate of reaction, what would you predict?
- (a) All active sites have been occupied by substrate molecules
 - (b) The enzyme molecules have denatured
 - (c) More substrate acted as inhibitor
 - (d) More substrate has disturbed the pH of the medium
6. Which of these graphs correctly shows the effect of temperature on the rate of an enzyme-controlled reaction?



7. The substance on which an enzyme act is called :
- (a) Cofactor (b) Inhibitor
 - (c) Coenzyme (d) Substrate
8. Non- protein part of enzymes are:
- (a) Inhibitors (b) Substrate
 - (c) Cofactors (d) Coenzymes
9. Optimum temperature for enzymes of human body is:
- (a) 86°C (b) 37°C
 - (c) 38°C (d) 39°C
10. Activation energy is required to:
- (a) activate enzyme
 - (b) start a reaction
 - (c) speed up a reaction (d) None
11. Lock and key Model was proposed by:
- (a) Emil Fischer (b) Melcher
 - (c) Koshland (d) Saugeo
12. Induced Fit model was proposed by:
- (a) Emil Fischer (b) Koshland
 - (c) Meicher (d) Saqr
13. Which enzyme breaks the peptide bonds:
- a) Amylase (b) Protease
 - (c) Lipase (d) None
14. Which enzyme converts lipids into fattyacid and glycerol?
- (a) Lipase (b) Amylase
 - (c) Pepsin (d) Trypsin
15. Number of discovered enzymes are :
- (a) 200 (b) 2000
 - (c) 3000 (d) 3500

(Lahore board 2011 G II)

CHAPTER # 6 - MCQS

Chapter Biology 9th



Answers

1.	b	6.	D	11.	a
2.	d	7.	D	12.	b
3.	b	8.	C	13.	b
4.	d	9.	B	14.	a
5.	a	10.	B	15.	b



Multiple Choice Questions

- In which of the following steps of respiration, CO_2 is produced?
(a) Glycolysis (b) Krebs cycle
(c) electron transport
(d) All of these
- Oxygen takes part in aerobic respiration in
(a) Glycolysis
(b) link step between Glycolysis and krebs cycle
(c) Krebs cycle
(d) electron transport chain
- When a plant was kept in darkness for many days, its leaves turned yellow. Why?
(a) Leaves could not get oxygen and so there was no photosynthesis
(b) Leaves could not get light and so there was no respiration
(c) Leaves could not get oxygen and so there was no respiration
(d) Leaves could not get light and so there was no photosynthesis.
- From which bonds of ATP molecule, energy is taken?
(a) P-P bonds (b) C-H bonds
(c) C-N bonds (d) C-O bonds
- In which component of the leaf cells, chlorophyll is present?
(a) stroma (b) Thylakoids
(c) Plasma membrane (d) Cytoplasm
- Which of these can enter into krebs cycle?
(a) Glucose (b) Pyruvic acid
(c) citric acid (d) Acetyl Co - A
- When we work hard we suffer from muscle fatigue because muscle cells
(a) Carry out aerobic respiration at faster rate and so are tired
(b) Carry out anaerobic respiration and so accumulate more CO_2
(c) Carry out anaerobic respiration and so accumulate lactic acid
(d) Carry out aerobic respiration at faster rate and so accumulate lactic acid
- How many molecules of CO_2 are produced when krebs cycle operates once?
(a) 01 (b) 02
(c) 03 (d) 06
- The potential energy is stored in chemical bonds and is released as _____ energy when these bonds break.
(a) Heat (b) Light
(c) Kinetic (d) Solar
- Fungi and _____ bacteria get the prepared food.
(a) Motile (b) Non-motile
(c) Photosynthetic
(d) Non-photosynthetic
- _____ reactions are the direct source of energy.
(a) Oxidation (b) Redox
(c) Reduction (d) None
- Redox reactions involve exchange of _____.
(a) Electrons (b) Protons
(c) Neutrons (d) Atoms

CHAPTER # 7 - MCQS



Chapter Biology 9th

13. In living organisms, redox reactions involve the loss and gain of _____ atom.
(a) Oxygen (b) Carbon
(c) Nitrogen (d) Hydrogen
14. The major energy currency of all cells is:
(a) ADP (b) ATP
(c) AMP (d) P-bonds
15. Ribose is a _____ carbon sugar.
(a) Two (b) Three
(c) Five (d) Ten
(Lahore board 2011 G I)
16. There are _____ P-bonds in an ATP molecule.
(a) Two (b) Nine
(c) Six (d) Four
17. The breaking of one phosphate bond releases ____ kcal/mole of ATP.
(a) 7.9 (b) 7.5
(c) 7.1 (d) 7.3
18. Photosynthesis is a /an _____ process.
(a) Metabolic (b) Catabolic
(c) Anabolic (d) Chemical
19. _____ is an inorganic compound of carbon which have poor energy value.
(a) Glucose (b) CO₂
(c) ATP (d) NADPH
20. _____ is a co-enzyme.
(a) NAD⁺ (b) NADH
(c) AMP (d) None
21. The raw materials in photosynthesis are
(a) Water, Oxygen (b) CO₂, O₂
(c) Water, CO₂ (d) Glucose, Water
22. The water from the soil enters into the root hairs by the process of

- (a) Photosynthesis (b) Osmosis
(c) Diffusion (d) Respiration
23. The air enters the leaf through _____.
(a) Pits (b) Stomata
(c) Mesophyll (d) Xylem vessels
24. The light reactions of photosynthesis take place on the _____ of chloroplasts.
(a) Stroma
(b) Thylakoid membrane
(c) Lumen (d) Sacs
25. The reactions which do not require light during photosynthesis are called _____ reactions.
(a) Chemical (b) Redox
(c) Dark (d) Light
26. Electrons are passed to ETC to produce:
(a) AMP (b) ATP
(c) ADP (d) NAD⁺
27. The 6-carbon compounds during the dark reactions of photosynthesis split into _____ carbon compound.
(a) 5 (b) 3
(c) 7 (d) 4
28. How many percent of the light falling on the leaf surface is absorbed;
(a) 5% (b) 6%
(c) 7% (d) 1%
29. Exchange of water vapours and gases occurs in leaf through;
(a) Stomata (b) Epidermis
(c) Xylem (d) Phloem
30. Any environmental factor, the absence or deficiency of which can decrease the rate of a metabolic relations known as;

CHAPTER # 7 - MCQS

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- (a) Unlimited factor
(b) Limiting factor
(c) Both (d) None
- 31.** Vessels, which transport water and salts to the plant are the components of:-
(a) Xylem (b) Phloem
(c) Vascular tissues (d) All
- 32.** Photosynthesis takes place in:
(a) Chloroplasts (b) Cytoplasm
(c) mitochondria (d) All
- 33.** Final products of anaerobic respiration is:
(a) Lactic acid (b) Ethanol
(c) CO_2 (d) All
- 34.** Glycolysis occurs in:
(a) Cytoplasm (b) Stroma
(c) Nucleus (d) All
- 35.** Fungi *Aspergillus* is used for making:
(a) Yogurt (b) Cheese
(c) Soy Sauce (d) Baking

36. Pyruvic acid is a _____ Carbon compound.

- (a) 5 (b) 4
(c) 3 (d) 2

37. In which of the following metabolic process, oxidation as well as reduction of molecules occur?

- (a) Photosynthesis (b) Respiration
(c) Both (d) None of these

38. Chlorophyllous pigment absorbs maximum light in wavelengths of:

- (a) Green and blue
(b) Green and red
(b) Green only
(d) Red and blue (Lahore board 2011 G I)

39. ATP was discovered by:

- (a) Schwann (b) J.Purkinji
(c) Darwin (d) Karl Lohmann
(Lahore board 2011 G II)

Answers

1. b	6. d	11. a	16. a	21. c	26. b	31. a	36. C
2. c	7. c	12. a	17. d	22. b	27. b	32. a	37. c
3. d	8. b	13. d	18. c	23. b	28. d	33. d	38. d
4. a	9. c	14. b	19. b	24. b	29. a	34. a	39. d
5. b	10. d	15. c	20. a	25. c	30. b	35. c	



Multiple Choice Questions

- What is the primary nutrient that provides quick useable energy for the body?
(a) Carbohydrates (b) Proteins
(c) Lipids (d) Nucleic acids
- The wavelike movement of muscle that pushes food through the digestive system is called;
(a) Chemical digestion
(b) Emulsification
(c) Absorption
(d) Peristalsis
- Micronutrients of plants are;
(a) Available in the soil in small amounts
(b) Required by plants in small amounts
(c) Small molecules required by plants
(d) Useful, but not required by plants
- Which of the following does not occur in the oral cavity?
(a) Lubrication of the food
(b) Beginning of protein digestion
(c) Breaking the food into small fragments
(d) All of the above do occur in the oral cavity
- Where are the villi found?
(a) Esophagus
(b) Stomach
(c) Small intestine
(d) Large intestine
- Ulcers occur in the;
(a) Stomach (b) Duodenum
(c) Esophagus (d) All
- Which group of enzymes breaks up starches and other carbohydrates?
(a) Proteases (b) Lipases
(c) Amylases (d) Duodenum
- The pancreas produces digestive enzymes and releases them into the;
(a) Colon (b) Gallbladder
(c) Liver (d) Duodenum
- In the stomach, pepsinogen is converted into;
(a) Pepsin (b) Bicarbonate
(c) HCl (d) Gastrin
- The hepatic portal vein carries blood from the _____ to the _____.
(a) Small intestines, liver
(b) Small intestines, heart
(c) Liver, heart
(d) Small intestines, colon
- Which of the following is not a function of the liver?
(a) Converts glucose to glycogen
(b) Converts glycogen to glucose
(c) Detoxifies poisonous substances
(d) Produces digestive enzymes
- The diseases of Kwashiorkor and marasmus may be due to;
(a) Mineral deficiency
(b) Over-intake of nutrients
(c) Protein-energy malnutrition
(d) Milk and cheese
- Which food group is our body's best source of energy?
(a) Meat Group
(b) Fats, oils and sweets
(c) Breads and cereals
(d) Milk and cheese

CHAPTER # 8 - MCQS



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14. What may be the reason that children need more calcium and iron?
(a) Both calcium and iron for bones
(b) Both calcium and iron for blood
(c) Calcium for blood and iron for bones
(d) Calcium for bones and iron for blood
15. The process of breaking down large droplets of fat into small droplets of fat is called:
(a) Emulsification (b) Absorption
(c) peristalsis (d) Digestion
16. Which one of the following macro nutrient is the part of chlorophyll?
(a) Calcium (b) Magnesium
(c) Sulphur (d) Iron
17. Which of the following is not a macronutrient ?
(a) Nitrogen (b) Oxygen
(c) Carbon (d) Nickel
18. Chemically synthesized urea is a _____ fertilizer.
(a) Organic (b) Inorganic
(c) Both (d) None
19. Good calcium along with low salt and high potassium intake prevents from:
(a) Hypertension (b) Kidney stone
(c) a and b (d) None
20. According to (UNICEF), how many children of under age five died by malnutrition?
(a) 4 million (b) 5 million
(c) 6 million (d) None
21. In adult human, the esophagus is about _____ long.
(a) 25 cm (b) 25 mm
(c) 25 m (d) 25 ft
22. Inactive pepsinogen in gastric juice require _____ for its activated form (pepsin).
(a) H_2SO_4 (b) HCl
(c) HNO_3 (d) Saliva
23. Many bacteria in colon produce vitamin _____ necessary for coagulation of blood.
(a) A (b) K
(c) C (d) D
24. The secretion of liver is:
(a) Pepsin (b) Bile
(c) Rennin (d) Lipase
25. Breaking of large molecules of fats into small droplets is called:
(a) Emulsification (b) Digestion
(c) Assimilation (d) Egestion
26. Following are not fat-soluble vitamins.
(a) A and D (b) E and K
(c) B and C (d) D and E
27. Rickets develops due to deficiency of _____ vitamin.
(a) B (b) A
(c) D (d) C
- (Lahore board 2011 G I)
28. Saliva is alkaline and contains an enzyme:
(a) Pepsin (b) Rennin
(c) Ptyalin (d) Amylase
29. Nitrogen is present in:
(a) Carbohydrates (b) Protein
(c) Nucleic acid (d) Lipids
30. In which group of the following is present Mg?
(a) Chlorophyll (b) Cytochrome
(c) Haemoglobin
(d) None of the above
31. which of the following is not the process included in the digestion?



- (a) conversion of amino acid into protein
(b) Conversion of protein into amino acid
(c) Conversion of glucose into starch
(d) Conversion of fatty acid into lipids
- 32.** The reason why digestion take place is?
(a) Animals need food particles in the form of smaller molecules
(b) The large food molecule cannot pass through their membrane
(c) The small food molecules increase their efficiency
(d) None of the above
- 33.** The function of the mucous of the salivary gland is to:
(a) Digest the food
(b) Make the food chew efficient
(c) Transport the food
(d) Break the food
- 34.** Which of the following is not the function of saliva?
(a) Digestion of food
(b) Lubrication of food
(c) Stabilization of PH
(d) Absorption of food
- 35.** The Amylase acts on:
(a) Protein (b) Starch
(c) glucose (d) Lipids
- 36.** Which of the following steps does not take place during act of swallowing?
(a) Moving of tongue up and down
(b) Upward movement of the larynx
(c) Opening of the glottis
(d) the movement of epiglottis in horizontal direction
- 37.** The function of the pepsin to convert the protein into:
(a) Amino acid (b) Peptones
(c) Dipeptides
(d) None of the above
- 38.** Gastrin is an:
(a) Enzyme of gastric juice
(b) It is a part of the stomach
(c) It stimulate the secretion of gastric juice
(d) It promotes the digestion of proteins
- 39.** The length of duodenum is:
(a) 15 - 20 cm (b) 20 - 25 cm
(c) 25 - 35 cm
(d) None of the above
- 40.** Which of the following enzymes act on fats:
(a) Amylase (b) Lipase
(c) Trypsin (d) None of these
- 41.** Most of the fatty acids are absorbed by:
(a) Epithelium of the villi
(b) Lacteal of the villi
(c) Blood capillaries of the villi
(d) None of the above
- 42.** Most of the water is absorbed by:
(a) Oral cavity (b) Stomach
(c) Small intestine
(d) Large intestine
- 43.** The largest gland of human body is:
(a) Pancreas (b) Thyroid
(c) Liver (d) Parathyroid
(Lahore board 2011 G II)
- 44.** Bread contains amount of carbohydrates:
(a) 40% (b) 30%
(c) 52% (d) 70%
(Lahore board 2011 G II)

CHAPTER # 8 - MCQS

Chapter Biology 9th



Answers

1.	a	11.	d	21.	a	31.	b	41.	b		
2.	d	12.	c	22.	b	32.	b	42.	d		
3.	b	13.	c	23.	b	33.	b	43.	c		
4.	b	14.	d	24.	b	34.	d	44.	c		
5.	c	15.	a	25.	a	35.	b				
6.	d	16.	b	26.	c	36.	c				
7.	c	17.	d	27.	c	37.	b				
8.	d	18.	b	28.	d	38.	c				
9.	a	19.	c	29.	b	39.	b				
10.	a	20.	c	30.	a	40.	b				



Multiple Choice Questions

- In most plants, the food is transported in the form of;
(a) Glucose (b) Sucrose
(c) Starch (d) Proteins
- Stomata close when the guard cells;
(a) Lose water
(b) Gain chloride ions
(c) Become turgid
(d) Gain potassium ions
- Trace the pathway of water from the soil through the plant to the atmosphere.
(a) Endodermis, cortex, epidermis, xylem, intercellular spaces in mesophyll, stomata
(b) Epidermis, endodermis, phloem, cortex of leaf, intercellular spaces of mesophyll, stomata
(c) Root hairs, epidermis, Cortex, xylem, endodermis, intercellular spaces in mesophyll, stomata
(d) Root hairs, cortex, endodermis, xylem, intercellular spaces in mesophyll, stomata
- When fibrinogen makes blood clot, it separates from blood and the remainder is called;
(a) Plasma (b) Lymph
(c) Serum (d) Puss
- What is correct about human red blood cells?
(a) Have limited life span
(b) Are capable of phagocytosis
(c) Produce antibodies
(d) Are multinucleate
- Which of the following tissue layer is found in all blood vessels?
(a) Smooth muscle
(b) Endothelium
(c) Skeletal muscle
(d) Connective tissue
- When do the atria contract?
(a) Before diastole
(b) after systole
(c) During diastole
(d) during systole
- Which of following contains deoxygenated blood in an adult human?
(a) Left atrium.
(b) pulmonary artery
(c) Pulmonary vein
(d) All of the above
- Which of the following chambers has the thickest walls in human heart?
(a) Right atrium (b) Left atrium

- (c) Left ventricle (d) Right ventricle
10. Which of these statements is correct about the circulatory system?
- (a) It transports hormones
(b) Capillaries have thicker walls than veins
(c) Systemic circulation carries blood to and from the lungs
(d) All are true
11. The exchange of materials between the blood and the surrounding tissues occurs in;
- (a) Arteries (b) Veins
(c) Capillaries (d) All of the above
12. Which of the following is a type of leukocyte?
- (a) Lymphocytes (b) Eosinophil
(c) Monocyte (d) All of the above
13. Which of the following is a function of human blood?
- (a) It regulates body temperature
(b) It transports wastes
(c) It provides defense
(d) All of the above
14. Valves to prevent the backflow of blood are found in;
- (a) Arteries (b) Veins
(c) Capillaries (d) All of the above
15. Plasma is made up of water and _____.
- (a) Metabolites and wastes
(b) Salts and ions
(c) Proteins
(d) All of the above
16. Which of these are responsible for blood clotting?
- (a) Platelets (b) Erythrocytes
(c) Neutrophils (d) Basophils
17. Find the correct path of blood circulation.
- (a) Left atrium, left ventricle, lungs, right atrium, right ventricle, body
(b) Right atrium, right ventricle, lungs, left atrium, left ventricle, body
(c) Left atrium, left ventricle, right atrium, right ventricle, lungs, body
(d) Right atrium, lungs, right ventricle, left atrium, body, left ventricle
18. A patient with blood group A can be given the blood of donor who has;
- (a) Blood group A or AB
(b) Blood group A or O
(c) Blood group A only
(d) Blood group O only
19. The death of the heart tissue is called;
- (a) Arteriosclerosis
(b) Atherosclerosis
(c) Myocardial infarction
(d) Thalassaemia
20. What happens when a mismatched blood group is injected in recipient?
- (a) Antibodies of the recipient's blood destroy donor's RBCs
(b) Antibodies of the donor's blood breakdown recipient's RBCs
(c) Both of these can happen
(d) None of these happens and such transfusion can be safe
21. Which of the followings is not true about the opening and Closing of Stomata?
- (a) Light helps in the opening and closing of stomata

- (b) K^+ ions are responsible for the opening and closing of stomata
(c) The osmosis of water is responsible for the opening and closing of stomata
(d) None of these
22. The rate of transpiration is increased when:
(a) Low light
(b) Temperature decrease
(c) Humidity increased
(d) none of these
23. Which of the followings is area of supply of food in plants?
(a) Leaf (b) Stem
(c) Fruit (d) All
24. There is separation of oxygenated and deoxygenated blood in birds and mammals because:
(a) The ventricles are completely divided
(b) The ventral aorta is divided into aortic and pulmonary trunk.
(c) The aortic arch is divided into two systemic arches.
(d) None of above
25. Which of the following blood vessels have oxygenated blood?
(a) Pulmonary artery
(b) pulmonary vein
(c) Superior vena cave
(d) inferior vena cave
26. The amount of plasma in blood is:
(a) 35% (b) 45%
(c) 55% (d) 65%
27. The percentage of inorganic salts and ions in the plasma is.:
(a) 0.6 (b) 0.7
(c) 0.8 (d) 0.9
28. The normal pH of the human blood is:
(a) 6.4 (b) 7.4
(c) 8.4 (d) 9.4
29. The percentage of the plasma protein in the blood is:
(a) 4 – 5 (b) 5 – 6
(c) 7 – 8 (d) 7 – 9
30. Which of the following proteins is not present in the plasma of the blood?
(a) Immunoglobulin or antibodies
(b) Prothrombin
(c) Haemoglobin
(d) Fibrinogen
31. Which of the following cells is most abundant in the blood?
(a) Red blood cells
(b) White blood cells
(c) Platelets
(d) None of the above
32. A cubic millimeter blood of male contains RBC:
(a) 5 – 5.5 million
(b) 4 – 4.5 million
(c) 3 – 4 million
(d) none of the above
33. Which of the followings are not Granulocytes?
(a) Neutrophils (b) eosinophils
(c) Monocytes (d) basophils
34. Pus is formed from which of the following dead white blood cells?
(a) Lymphocytes (b) eosinophils



- (c) Monocytes (d) basophils
35. Which of the following structure are not cells.
(a) Lymphocytes (b) eosinophils
(c) Monocytes (d) platelets
36. Which of the following process is a homeostasis?
(a) To maintain the amount of water constant in the blood
(b) To maintain the functioning of the body
(c) To maintain the process of respiration
(d) To maintain the muscular activity
37. Which of the following is not the function of blood?
(a) It transport gases in the body
(b) It transports reproductive cells in the body
(c) It transport food within the body
(d) It transport waste material in body
38. Which of the followings is Leukaemia?
(a) Uncontrolled production of RBC
(b) Uncontrolled production of WBC
(c) Uncontrolled production of Platelets
(d) All of the above
39. Thalassaemia is an abnormality of:
(a) RBC (b) WBC
(c) Platelets (d) None of these
40. The valve present between right atrium and right ventricle is called:
(a) Tricuspid valve
(b) Bicuspid valve
(c) Semilunar valve
(d) none of the above
41. The valve present between left atrium and left ventricle is called:
(a) Tricuspid valve
(b) Bicuspid valve
(c) Semilunar valve
(d) none of the above
42. The valve present at the base of aorta is called:
(a) Tricuspid valve
(b) Bicuspid valve
(c) Semilunar valve
(d) none of the above
43. Which of the following arteries supply blood to legs?
(a) Femoral artery
(b) Renal artery
(c) Coronary artery
(d) pulmonary artery
44. Which of the following veins does collect blood from the digestive system and supply blood to liver?
(a) Hepatic vein
(b) Hepatic portal vein
(c) Renal veins
(d) none of the above
45. The voice of lubb is produced during the contraction of heart when:
(a) Tricuspid valve is closed
(b) Bicuspid valve is closed
(c) Both tricuspid and bicuspid valves are closed
(d) Semilunar valves are closed
46. The voice of dub is produced during the contraction of heart when:
(a) Tricuspid valve is closed
(b) Bicuspid valve is closed



- (c) Both tricuspid and bicuspid are closed
(d) Semilunar valves are closed
47. Which of these layers is present in the arteries?
(a) Connective tissues and elastic fibres
(b) Smooth and circular muscles
(c) Connective tissues
(d) All of the above
48. Which of the followings is Atherosclerosis?
(a) The breaking of the wall of the artery
(b) The narrowness of the wall of the artery
(c) The deposition of fats in the wall of the artery
(d) None of the above
49. Which of the followings is the characteristic of capillary?
(a) It has three layers of endothelium
(b) It has one layer of endothelium
(c) It has one layer of connective tissues
(d) It has one layer of elastic tissues
50. Which of followings is the main function of capillaries?
(a) Supply blood to tissues
(b) Exchange of materials
(c) Bring blood from tissues
(d) Transport of materials
51. Which of the following layers is thin in veins?
(a) Connective tissues and elastic fibres
(b) Smooth and elastic tissues.
(c) Connective tissues
(d) All of the above
52. Which of following veins has oxygenated blood?
(a) Renal vein
(b) Hepatic vein
(c) Pulmonary vein
(d) Coronary vein
53. In which of the following blood vessels has high blood pressure?
(a) Artery (b) Vein
(c) Capillary (d) non of the above
54. In which of the following blood vessels, pulse is felt?
(a) Artery (b) Vein
(c) Capillary (d) non of the above
55. Which of the followings are blood vessels responsible for exchange of material?
(a) Artery (b) Vein
(c) Capillary (d) none of the above
56. Which of followings is the cause of hypertension?
(a) Low blood pressure
(b) High blood pressure
(c) Cholesterol level
(d) All of the above
57. Which of the followings is thrombus?
(a) A blockage of blood vessel
(b) A clot in the vessel
(c) A moving clot in vessel
(d) None of the above
58. Which of the following is embolus?
(a) A blockage of blood vessel
(b) A clot in the vessel
(c) A moving clot in vessel
(d) None of the above

CHAPTER # 9 - MCQS



Chapter Biology 9th

59. Which of the following condition is helpful in the prevention of heart attack?

- (a) Avoid too much fatty food rich in cholesterol.
- (b) Maintain normal body weight
- (c) Control the blood pressure by regular walk and exercises.
- (d) All of the above

60. Tricuspid valve contains no. of flaps:

- (a) Four
 - (b) Five
 - (c) Three
 - (d) Two
- (Lahore board 2011 G II)

Answers

1. b	12. d	23. d	34. a	45. c	56. b
2. a	13. d	24. a	35. d	46. d	57. b
3. d	14. b	25. b	36. a	47. d	58. c
4. c	15. d	26. c	37. b	48. b	59. d
5. a	16. a	27. d	38. b	49. b	60. c
6. b	17. b	28. b	39. a	50. b	
7. d	18. b	29. d	40. a	51. b	
8. b	19. c	30. c	41. b	52. c	
9. c	20. c	31. a	42. c	53. a	
10. a	21. d	32. a	43. a	54. a	
11. c	22. d	33. c	44. b	55. c	