MOCK PAPER IN ANIMAL ORGANIZATION

01. Which epithelial tissue exists in the walls of blood vessels, and sacs of lungs?

a) Cuboidal b) Columnar

c) Squamous d) Ciliated columnar

02. Which of the following epithelium lines the moist surface of the buccal cavity?

a) Stratified keratinized squamous b) Stratified non-keratinized squamous

c) Cuboidal d) Stratified columnar

03. Which epithelium lines the inner surface of the urinary bladder and ureters?

a) Cuboidal b) Transitional c) Compound d) Stratified

04. Which cell junctions facilitate the cells to communicate with each other by connecting the cytoplasm of adjoining cells for rapid transfer of ions and molecules?

a) Tight junctions b) Adhering junctions

c) Gap junctions d) Desmosome

05. Mark the tissue which is most primitive, omnipresent and called as wear and tear tissue, with little or no intercellular matrix

a) Epithelial tissue b) Connective tissue c) Muscular tissue d) Nervous tissue

06. Cells of germinal epithelium are:

a) Cuboidal b) Columnar c) Squamous d) Ciliated

07. Ependyma forms the lining of

a) Ventricles of brain b) Ventricles of heart c) Intestine d) Buccal cavity

08. Which one of the following statements is false?

a) The body cells of eumetazoans form tissues

b) Animals get carbon and energy by ingesting other organisms

c) Animals are motile; possess active movement during some stage in their life cycle

d) Meiotic cell divisions transform the animal zygote into a multicellular embryo

09. Cell aggregate body plan is exhibited by:

a) Sponges b) Flatworms c) Cnidarians d) Round worms

10. The blind sac body plan is shown by:

a) Sponges b) Cnidarians and flatworms

c) Flatworms and roundworms d) Roundworms and earth worms

11. Which of the following is a rare type of symmetry in animals?

a) Radial b) Bilateral c) Biradial d) Spherical

12. Bilateral symmetry is accompanied by:

a) Neoteny b) Metamerism c) Metamorphosis d) Cephalization

13. Germ layers in sponges are

a) One b) Two c) Three d) Absent

14. Besides Annelida and Arthropoda, metamerism is found in:

a) Cestoda b) Mollusca c) Chordata d) Acanthocephala

15. Development of mesoderm in the form of muscles in body wall, leaving alimentary canal non-muscular is the feature of:

a) Acoelomates b)Pseudocoelomates

c) Enterocoelomates d) Schizocoelomates

16. Which one of the following is not a deuterostome?

a) Cuttle fish b) Hag fish c) Star fish d) Cat fish

17. In understanding different types of symmetry, the term used as principal axis means:

a) A flat area that runs through any axis

b) An imaginary straight line joining two opposite points at the ends

c) An imaginary straight line joining the midpoint at one end and the midpoint at the opposite end

d) An imaginary line passing through focus.

18. Which of the following option is correct?

A) If a bone is kept in Hcl for some time, its inorganic part is dissolved and organic part is left behind

B) If a bone is burnt, its inorganic matter is destroyed and organic part is left behind

a) A is correct, B is incorrect b) B is correct, A is incorrect

c) Both A & B are correct d) Both A & B are incorrect

19. Which of the following is not correct w.r.t cartilage?

a) Intercellular material of cartilage is solid and pliable

b) It resists compression

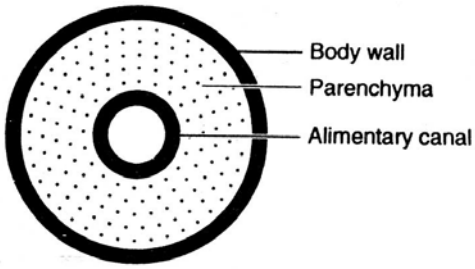
c) All the cartilages in vertebrate embryo are replaced by bones in adult

d) Chondrocytes are cells of cartilage

20. Which of the following forms the inter nasal septum

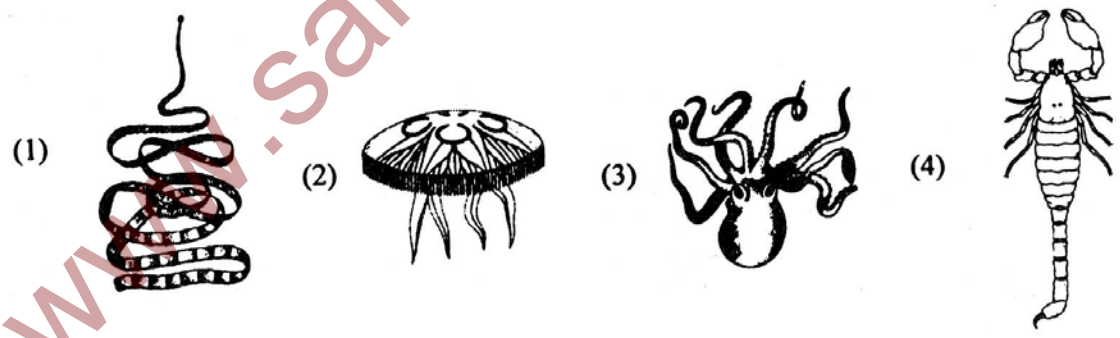
a) Fibrous cartilage b) Hyaline cartilage c) Elastic cartilage d) Calcified cartilage

21. The cross section of the body of an invertebrate is given below. Identify the animal which has this body plan



a) Planaria b) Earthworm c) Cockroach d) Roundworm

22. The figure shows four animals (1), (2), (3) and (4). Select the correct answer with respect to common characteristics of two of these animals



a)(3) and (4) have a true coelom b) (1) and (4) respire mainly through body wall

c) (2) and (3) show radial symmetry d) (1) and (2) have cnidoblasts for self-defence

23. The percentage of total volume occupied by RBCs is

a) Haematuria b) Haemolysis c) Hematocrit d) Haemophilia

24. Study the following and identify the set of correct statement(s) pertaining to mature mammalian RBCs.

i. They are circular, biconcave and enucleate in all mammals.

ii. They are elliptical in shape in camels and Llamas.

iii. The total RBCs count in a woman is more than that of a man.

iv. Erythropoietin stimulates spleen to enhance the production of RBCs at very high altitudes.

a) I & IV b) II & IV c) II only d) III only

25. Identify the pair of vitamins which are essential for the maturation of RBC in man.

a. Pyridoxine & pantothenic acid b. Cyanocobalamine & riboflavin

c. Pantothenic acid & ascorbic acid d. Cyanocobalamine & folic acid.

26. The WBCs that remove antigen and antibody complexes are those with

a. Fewer and irregular granules in cytoplasm.

b. A nucleus which is divided in to irregular lobes.

c. A nucleus which is distinctly bilobed

d. Specific, small and abundant granules.

27. Arrange the following in the descending order based on their % in total leukocyte count:

I. Monocytes II.Neutrophils III.Basophils IV. Lymphocytes V. Eosinophils

a. I-II-III-IV-V b. II-IV-I-V-III c. II-IV-III-V-I d. II-IV-I-III-V

28. Identify the correct statements.

I. Lymph is blood without RBCs, large plasma proteins and platelets.

II. Lymph has more nutrients than blood.

III. Interstitial fluid is returned directly to blood due to hydrostatic pressure at the arteriolar end.

IV. Most of the intestinal fluid is returned at the venule end directly due to Osmotic pressure.

a. I&IV b. II&III c. I&III d. I&II

29. Study the statements given below.

I.ECF contains relatively more nutrients and oxygen than lymph.

II.ECF contains water, solutes, proteins of low molecular weight and WBC.

III. Lymph capillaries of intestinal villi are lacteals.

IV. ECF is considered as Middleman between blood and tissues.

a. I&II are incorrect b. I, II, III & IV are correct

c. IV only is correct d. III only is correct

30. Study the following with reference to cardiac muscle and choose the correct set of statements.

I. Myocardial cells are short, cylindrical and branched at the ends.

II. Myocardial cells are uninucleate or binucleate.

III. The adjacent myocardial cells are joined by gap junctions/electrical synapses.

IV. Intercalated discs are characteristic of cardiac muscle.

a. Only I&II b. Only II & III c. Except I d. I, II, III and IV

31. Due to the presence of multinucleate condition, the skeletal muscle fibre is described as:

a. Polyploidy b. Polykaryon c. Syncytial d. Coenocytic.

32. The largest muscle in human body is:

a. Quadriceps b. Stapedius c. Gluteus maximus d. Gastrocnemius.

33. Which of the one of the following tissues in man shows the least capacity for regeneration?

a. Epithelium of skin b. Endothelium of blood vessels

c. Skeletal tissue of long bones d. Nervous tissue of brain

34. Bipolar neurons are found in:

a. Sensory cells of the internal ear b. Retina of eye

c. Olfactory sensory epithelium d. All the above

35. Identify the correct statement with regard to the node of Ranvier:

a. It is covered by myelin sheath

b. Axolemma is discontinuous at nodes of Ranvier.

c. Myelin sheath is discontinuous at the nodes of Ranvier.

d. Both neurilemma and myelin sheath are discontinuous at nodes of Ranvier

36. **Assertion (A):** Mammary gland is an example of apocrine gland

Reason (R): Mammary gland releases secretion by pinching the apical portions of the cells

a) If both A & R are true and the reason is the correct explanation of the A

b) If both A & R are true, but the reason is not the correct explanation of the A

c) If A is true statement, Reason is false

d) If both A and R are false statements

37. **Assertion (A):** RBC of mammals are enucleated

Reason (R): The absence of nucleus in mammalian RBC helps to accommodate maximum amount of haemoglobin

a) If both A & R are true and the reason is the correct explanation of the A

b) If both A & R are true, but the reason is not the correct explanation of the A

c) If A is true statement, Reason is false

d) If both A and R are false statements

38. **Assertion (A):** Visceral muscles are smooth muscles.

Reason(R): The myofibrils of smooth muscle fibres do not show cross bands due to regular arrangement of Thin and thick myofilaments.

a) If both A & R are true and the reason is the correct explanation of the A

b) If both A & R are true, but the reason is not the correct explanation of the A

c) If A is true statement, Reason is false

d) If both A and R are false statements

39. **Smooth muscle fibres**

I. Are fusiform & uninucleated cells

II. Are involuntary in function

III. Do not perform slow and sustained contractions

IV. Do not show striations due to regular arrangement of actin and myosin filaments.

Choose the incorrect set of statements.

a. I & II b. III & IV c. II & III d. I & IV

40. **The 3rd key transition in the evolution of animal body plan is**

a. Cellular level b. Tissues c. Bilateral symmetry d.*Body cavity.

41. Study the following table.

S.No	Epithelium	Feature	Location
A	Stratified & cuboidal	Cells in apical layer are cube shaped.	Ducts of sweat glands.
B	Stratified & columnar	Cells in the apical layer are columnar.	Conjunctiva of eye
C	Transitional	Superficial cells are squamous in undescended state.	Urinary bladder
D	Pseudo-stratified &ciliated columnar	Mucus traps foreign particles	Trachea

a. Only A&B are correct b. A&B is incorrect

c. A,B and D are incorrect d. Except C others are correct

42. Most of the neurons of our body are:

a. Bipolar b. Unipolar c. Multipolar d. Pseudo-unipolar

43. Nissl's granules are made up of:

a. Fat granules b. Ribosomes c. Mitochondria d. Lysosomes.

44. The products of cellular wear and tear accumulating in lysosomes with age are

a. Nissl granules b. Lipofuscin granules c. Boutons d. Chromatoid bodies

45. The soma of a sensory or pseudo unipolar neuron is located in:

a. Ventral root of a spinal nerve b. Dorsal root ganglion of a spinal nerve

c. Dorsal funiculus of a spinal cord d. Ventral funiculus of a spinal cord.

KEY FOR MOCK TEST PAPER ON ANIMAL ORGANISATION

1) c	2) b	3) b	4) c	5) a	6) a	7) a	8) d	9) a	10) b
11) d	12) d	13) d	14) c	15) b	16) a	17) c	18) a	19) c	20) b
21) a	22) a	23) c	24) c	25) d	26) c	27) b	28) a	29) b	30) d
31) c	32) c	33) d	34) d	35) c	36) a	37) a	38) c	39) b	40) d
41) d	42) c	43) b	44) b	45) b					

Animal Organization

QUESTION BANK EXERCISE—3

NOTE: Follow the options given below to mark your response

A. If assertion and reason are correct and assertion is the proper explanation.

B. If A and R is correct and R is not an explanation to A.

C. If A is and R is false D. If both A&R are false

1. The grade of organization in sponges is

a) Cellular grade b) Cell-tissue grade

c) Protoplasmic grade d) Organ-System grade

2. Metazoans without tissue grade organization are called

a) Parazoans b) Protozoans c) Deuterostomians d) Eumetazoans

3. Cell-tissue grade of organization occurs in

a) Hydra b) Sponge c) Starfish d) Liver fluke

4. Which level of organization is found in majority of animals?

a) Cellular grade b) Cell-tissue grade

c) Tissue-organ grade d) Organ system grade

5. Match the phyla listed under column-I with the level of organization given under column-II. Choose the answer which given the correct combination of the alphabets of the two columns

Column-I (Phylum)	**Column-II (Level of Organization)**
A) Porifera	P) Cell-tissue
B) Protozoa	Q) Protoplasmic
C) Cnidaria	R) Organ-system
D) Chordata	S) Cellular

a) A = S, B = Q, C = P, D = R b) A = Q, B = R, C = S, D = P

c) A = S, B = R, C = Q, D = P d) A = R, B = Q, C = S, D = P

6. An animal without anus is

a) Unio b) Pheretima c) Fasciola d) Periplaneta

7. Which of the body plan is found in nematodes?

a) Blind sac c) Cell aggregate

c) Tube-within-a-tube d) None of these

8. Majority of adult sponges show

a) Asymmetry b) Radial symmetry

c) Bilateral symmetry d) Biradial symmetry

9. Radial symmetry occurs in

a) Porifera and Coelenterata b) Arthropoda and Mollusca

c) Coelenterata and Echinodermata d) Mollusca and Echinodermata

10. Which of the following metazoan phyla are grouped under the Radiata?

a) Arthropoda and Porifera b) Cnidaria and Ctenophora

c) Mollusca and Coelenterata d) Mollusca and Echinodermata

11. Which symmetry is exhibited by sea walnuts?

a) Bilateral b) Radial c) Spherical d) Biradial

12. Which of the following is strongly associated with cephalization?

a) Asymmetry b) Radial symmetry

c) Bilateral symmetry d) Biradial symmetry

13. Bilateral symmetry is absent in

a) Frog b) Obelia c) Octopus d) Mammal

14. The number of lateral oesophageal hearts in Pheretima is:

a) 2 b) 4 c) 4pairs d) 8pairs

15. Which symmetry is found in a sea anemone?

a) Biradial b) Asymmetry c) Spherical d) Pentamerous

16. A fixed animal generally possesses

a) No symmetry b) Radial symmetry

c) Bilateral symmetry d) All of the above

17. Radial symmetry is often exhibited by animal having

a) Ciliary mode of feeding b) Aquatic mode of living

c) Benthos / sedentary nature d) One opening of alimentary canal

18. Animals with radial symmetry in adult and bilateral symmetry in larva are

a) Annelids b) Echinoderms c) Coelenterates d) Platy helminthes

19. All diploblastic animals are

a) Eucoelomates b) Enterocoelomates

c) Radially symmetrical d) Bilaterally symmetrical

20. All triploblastic animals are

a) Eucoelomates b) Schizoelomates

c) Radially symmetrical d) Bilaterally symmetrical

21. An animal without segmentation is

a) Shipworm b) Tapeworm c) Earthworm d) Glowworm

22. Metamerism is characteristic of

a) Porifera b) Mollusca c) Annelida d) Echinodermata

23. What is common among an earthworm, a cockroach and a centipede?

a) Haemocoel b) Metamerism

c) Sexual dimorphism d) Chitinous exoskeleton

24. A coelom (body cavity) derived from blastocoel is known as

a) Schizocoel b) Enterocoel c) Haemocoel d) Pseudocoel

25. The animals with pseudocoel are

a) Amia and leech b) Lepisma and liverfluke

c) Aurelia and dragonfly d) Wuchereria and hookworm

26. Development of mesoderm in the form of muscles in body wall, leaving alimentary canal non-muscular is the feature of

a) Acoelomates b) Pseudocoelomates

c) Enterocoelomates d) Schizocoelomates

27. An eucoleomate phylum is

a) Porifera b) Cnidaria c) Arthropoda d) Aschelminthes

28. M-cells (Mesoblast cells) play an important role in the development of which body cavity?

a) Schizocoelomate b) Pseudocoelom c) Enterocoelomate d) Coelenteron

29. Protostomes and deuterostomes differ in

a) Type of cleavage b) Origin of mouth and anus

c) Mode of coelom formation d) All of the above

30. The following animal phylum belongs to Deuterostomia

a) Echinodermata b) Mollusca c) Arthropoda d) Annelida

31. Identify the group in the following having all animals belonging to the same class

a) Dog fish, sliver fish, crayfish, and flatfish

b) Glowworm, silkworm, housefly, bedbug

c) Sea urchin, sea cucumber, sea fan, sea lion

d) Centipede, earthworm, caterpillar, ship worm

32. In which of the following groups, all animals are hermaphrodites?

a) Tapeworm, Toad, Starfish b) Hydra, Leech, Tapeworm

c) Hydra, Ascaris, Pheretima d) Hydra, Homo sapiens, Leech

33. Gorilla, chimpanzee, monkey and man belong to the same

a) Family b) Species c) Genus d) Order

34. Venus's girdle belongs to the phylum

a) Cnidaria b) Porifera c) Ctenophora d) Chordate

35. Schizocoelomates and enterocoelomates are

a) Acoelomates b) Invertebrates

c) True coelomates d) Echinoderms only

36. Haversian systems are characteristic of the long bones of?

a. Reptiles b. Birds c. Mammals d. Amniotes

37. Deuterostome condition and indeterminate, radial cleavage are characteristics of

a) Chordates, arthropods and annelids

b) Arthropods and echinoderms

c) Chordates and echinoderms

d) Chordates and arthropods

38. The plane that divides the body into right and left halves

a) Sagittal b) Radial c) Transverse d) Frontal

39. The weakest of all cartilages is:

a. Hyaline b. Fibrous c. Calcified d. Elastic

40. Irregular dense fibrous tissue is found in;

a. Perichondrium b. Periosteum c. Periodontal membrane d. a,b,&c

41. If, RBCs are removed, the remaining part of a sample of blood is called

A. Serum B. Plasma C. Lymph D. Buffi coat

42. If, all the formed elements are removed from a sample of blood the remaining part of it is to be referred to as

A. Serum B. Plasma C. Lymph D. Puss

43. A tissue with a matrix which is not secreted by its living components is

A. Blood B. Cartilage C. Bone D. Adipose

44. The pH of blood under normal conditions in humans is

A.7.8 B.7.4 C.6.7 D.6.4

45. The percentage of fluid matrix and formed elements of blood is respectively:

A.45&55 B.55&45 C.60&40 D.40&60

46. The total volume of blood in a healthy man weighing 60kgs is

A.4lts B.5to6lts C.8lts D.10lts

47. The percentage of all types of dissolved solutes in plasma of blood is

A.92 B.55 C.45 D.8

48. The most abundant serum protein among the following is

A. Fibrinogen B. Prothrombin C. Globulin D. Albumin

49. The plasma protein which is mainly responsible for maintaining colloidal osmotic pressure of blood is

A. Globulin B. Albumin C. Fibrinogen D. Prothrombin

50. Assertion: A fall in the level of albumins in blood plasma causes edema.

Reason: Albumins mainly maintain blood colloidal osmotic pressure and fall in the albumin level lowers osmotic pressure of blood.

Answer _____

51. Which constituents of blood plasma act as "acid base buffers?"

A. Chlorides B. Sulphates C.Proteins D. Lipids

52. The blood cells in the earliest stages of embryogenesis are formed from

A. Liver B. Spleen

C. Red bone marrow D. Yolk sac mesoderm

53. Which one of the following is the primary site of haemopoiesis in the final stages of embryonic development and after birth?

A. Spleen B. Liver

C. Red bone marrow D. Yolk sac mesoderm

54. The shortage of O_2 in the atmosphere at very high altitudes stimulates the secretion of which one of the following hormones by kidneys in the people living in those areas.

A. Renin B. Angiotensin C.Erythropoietin D.Aldosterone

55. An abnormal rise and fall in RBC count are respectively referred to as:

A. Polycythaemia and erythroclasia B. Erythropoiesis and erythroclasis

C. Polycythemia and erythrocytopenia D. Polycythemia and anemia

56. The state of RBC in the course of its development in which the nucleus and other organelles are lost is

A. Reticulocyte B. Reticulate cell C. Proerythroblast D. Haemocytoblast

57. Identify the incorrect statements with reference to a haemoglobin molecule in the RBC of man under normal conditions

i. Each haemoglobin molecule contains four polysaccharide chains and four heme molecules.

ii. Each heme molecule contains one Fe^{2+}

iii. Haemoglobin is a conjugated protein.

iv. Each haemoglobin molecule can carry one oxygen molecule

A. ii & iii B. i & IV C. i & iii D. ii & iv

58. The life span of RBC in humans is (days)

A. 100 B.120 C. 90 D. 12

59. Study the following statements and choose the correct statements pertaining to WBCs

i. A slight increase in WBC count and fall in WBC count respectively are referred to as leukaemia and leukocytopenia.

ii. WBCs perform diapedesis to reach extra cellular areas.

iii. The total leukocyte count under normal conditions in a human being is 60,000 – 1, 00,000/Cmm.

iv. WBC exhibit leukocytosis during parasitic infections and allergy

A. i & iii B. ii & iii C. ii & iv D. iv only

60. The blood cells that supplement the function of mast cells by producing heparin and histamine whenever they are required.

A. Neutrophils B. Monocytes C. Basophils D. Acidophils

61. Which of the following are described as microscopic police men?

A. Monocytes B. Neutrophils C. Eosinophils D.Basophils

62. In female mammals which of the following WBCs have a drumstick body attached to their nucleus.

A. Cells in which the nucleus is divided in to 2to 5 lobes.

B. Cells which play a role in allergic reactions.

C. Cells that play a role in immunological reactions.

D. Cells that differentiate into macrophages in connective tissues.

63. The largest, motile phagocytes are WBC with a

A. Large spherical nucleus B. Reniform nucleus

C. Multi lobed nucleus D. Irregularly lobed nucleus

64. The WBCs that perform 'reverse diapedesis and reach blood vessels are

A. Monocytes B. Neutrophils C. Lymphocytes D. Eosinophils

65. A clotting factor secreted by platelets of blood is:

A. Thrombin B. Thrombokinase C. Thromboplastin D. Fibrinogen

66. Platelets are formed by the fragmentation of which cells in red bone marrow

A. Megakaryoblasts B. Megakaryocytes

C.Thromboblasts D. Thrombocytes

67. The formed elements of blood that play an important role in the process of clotting of blood are

A.RBCs B. Granulocytes C. Agranulocytes D. Platelets

68. Lymph finally reaches blood through:

A. Jugular veins B. Subclavian veins

C. Carotid veins D. Hepatic veins

69. Which one of the following is considered as the most important function of lymph?

A. Transport of oxygen to tissues B. Transport of nutrients to tissues

C. To return interstitial fluid to blood D. To return CO_2 to lungs

70. Lymphoid tissue is found in:

A. Tonsils B. Thymus

C. Lymph nodes D. Tonsils, thymus & lymph nodes

71. Which of the following is a tissue?

A. Liver B. Pancreas C. Gut D. Lymph

72. Identify the main difference between blood and lymph.

A. Blood has RBCs while lymph has WBCs.

B. Blood has less nutrients while lymph has relatively more nutrients.

C. Blood has all formed elements while lymph has all except RBCs

D. Blood has less fibrinogen while lymph has more fibrinogen.

73. The most important centre for the production of lymph is:

A. Liver B. Spleen C. Interstitial space D. Kidney

MUSCULAR TISSUES

74. I. All muscular tissues are derived from mesoderm.

II. Muscles of iris and ciliary body are derived from ectoderm.

III. Excitability, conductivity and contractility are the essential properties of muscles.

IV. All striated muscles undergo fatigue. Choose the incorrect statements.

A. II & III B.II & IV C. I & IV D. I & III]

75. Muscle fibers are called

A. Sarcocytes B. Myocytes C. A & B D. Sarcosomes

76. Study the statements pertaining to a skeletal muscle fibre and choose the correct statements.

I. The power houses of a sarcocyte are called sarcosomes

II. A skeletal muscle fibre has many myofibrils.

III. A myofibril has thick and thin filaments.

IV. The thick and thin filaments of a myofibril in a skeletal muscle fibre show irregular arrangement.

A. Except IV B. Only I & II C. Only III & IV D. II & III

77. The outermost connective tissue sheath enclosing a group of fascicles is .

A. Endomysium B. Epimysium C. Perimysium D. Sarcolemma

78. A sheet like connective tissue layer formed by the extension of connective tissue beyond the muscle is called

A. Tendon B. Aponeurosis C. Ligament D. Syndesmosis

79. Study the following and identify the false statement.

A. A skeletal muscle fibre is a long cylindrical multinucleate cell.

B. Skeletal muscle contracts quickly and Undergoes fatigue slowly.

C. Satellite cells help in the regeneration of skeletal muscle fibre.

D. All striated muscles are voluntary muscles.

80. Assertion (A): Visceral muscles are smooth muscles.

Reason(R): The myofibrils of smooth muscle fibres do not show cross bands due to regular arrangement of Thin and thick myofilaments.

Answer _____

I. Are fusiform, uninucleated cells

II. Are involuntary in function

III. Do not perform slow and sustained contractions

IV. Do not show striations due to regular arrangement of actin and myosin filaments.

Choose the incorrect set of statements.

A. I & II B. III & IV C. II & III D. I & IV

81. Which of the following are not smooth muscles?

A. Muscles of ciliary body of an eye B. Muscles of iris

C. Arrector pili muscles D. Intrinsic muscles of human tongue.

82. Smooth muscle fibres

I. Are fusiform, uninucleated cells

II. Are involuntary in function

III. Do not perform slow and sustained contractions

IV. Do not show striations due to regular arrangement of actin and myosin filaments.

Choose the incorrect set of statements.

A. I & II B. III & IV C. II & III D. I & IV

83. Assertion: Cardiac muscle is highly resistant to fatigue.

Reason: In a cardiac muscle continuous aerobic respiration is facilitated by a relatively large number of sarcosomes, myoglobin molecules and copious supply of blood.

I. Are fusiform, uninucleated cells

II. Are involuntary in function

III. Do not perform slow and sustained contractions

IV. Do not show striations due to regular arrangement of actin and myosin filaments.

Choose the incorrect set of statements.

A. I & II B. III & IV C. II & III D. I & IV

-84. Assertion: Cardiac muscle acts as a functional syncytium.

Reason: The gap junctions facilitate the conduction of electrical impulses all along the cardiac muscle fibres so that a whole hearted contraction of the entire muscle as a single unit occurs.

I. Are fusiform, uninucleated cells

II. Are involuntary in function

III. Do not perform slow and sustained contractions

IV. Do not show striations due to regular arrangement of actin and myosin filaments.

Choose the incorrect set of statements.

A. I & II B. III & IV C. II & III D. I & IV

85. The oxygen dissociation curve of oxyhaemoglobin is

A. Linear B. Sigmoid C. Parabolic D. Hyperbolic

86. The fine connective tissue layer enveloping an individual muscle fibre is:

A. Epimysium B. Perimysium C. Endomysium D.Sarcolemma

87. A muscle is relatively rich in:

A. Glycogen B. Proteins C. Lipids D. Vitamins

88. Contractile tissues have the following features:

I. They are mesodermal in origin.

II. They contain stretch receptors.

III. They perform rhythmic contractions.

IV. They do not undergo fatigue.

Which of the above are characteristics of sphincters?

A. I, II, III & IV B. only I, II & IV C. only I, III & IV D. I, II & III

89. The repeating unit of a skeletal myofibril is :

A. Sarcomere B. Myomere C. Actomyosin D. Motor unit

90. Myofibrils are made up of:

A. Actin and myosin B. Troponin and tropomyosin

C. Both A & B D. Myosin only

91. Identify the set of proteins that are present in the thin filaments of a myofibril.

A. Actin,troponin & tropomyosin B. Trypsin & actin

C. Troponin &myosin D. Myosin & tropomyosin

92. Skeletal muscles are attached to bones except in:

A. Pinna &nose B. Jaw &nose

C. Tongue & oesophagus D. Pinna& skull

93. Smooth muscles are not found in:

A. Fallopian tube B. Blood vessel C. Wall of intestine D. Eyeball muscle

94. Smooth muscles occur in the wall of:

A. An artery B. Vein C. Uterus D. An artery, vein &uterus

95. Which one of the following is a feature of cardiac muscle?

A. They are branched and enucleate.

B. They contract quickly and do not get fatigued quickly.

C. They contract slowly and do not get fatigued.

D. They contract quickly and soon get fatigued.

96. Cardiac muscles are:

A. Striated and voluntary B. Striated and involuntary

C. Smooth and involuntary D. Smooth and voluntary

97. The muscles surrounding the pupil of the eye of a man are:

A. Striated and voluntary B. Striated and Involuntary

C. Smooth and involuntary D. Smooth and voluntary

98. In the wall of stomach the layer of muscles nearest to peritoneum is

A. Circular B. Oblique C. Longitudinal D. Dorsoventral

99. Ciliary muscles are found in:

A. Diaphragm of man B. Vertebrate eye C. Uterus D. Trachea of man

NERVOUS TISSUE

100. The functional unit of nervous system is:

A. Axon B. Cyton C. Dendrite D. Neuron

101. Neurons

A. Divide by amitosis B. Divide by mitosis

C. Divides by meiosis D. Do not divide

102. The longest cell in the human body is :

A. Myocyte B.Neuron C. Osteocyte D. Fibrocytes

103. Which one of the following is absent in a neuron:

A. Nucleus B. Centrosome C. Golgi complex D. Mitochondrion

104. The areas where the medullary sheath is absent in the nerve fibre are called

A. Schwann cells B. Nodes of Ranvier C. Schwann node D. Nissl bodies

105. The afferent and efferent processes of a neuron are respectively called:

A. Axon & cyton B. Cyton &dendrite C. Dendrite & axon D. Axon &dendrite

106. A group of cell bodies in CNS and PNS are respectively called:

A. Nucleus and ganglion B. Ganglion and nucleus

C. Tract and ganglion D. Nucleus and tract

107. Study the following and identify the incorrect statement:

A. Dendrites and cyton contain Nissl bodies and neurofibrils

B. Dendrites conduct impulses towards the cyton whereas the axon conducts impulses away from the soma.

C. Nissl bodies are absent in an axon.

D. The axoplasm of an axon does not contain neurofibrils

108. Identify the wrong statement.

A. Distally an axon branches into many fine filaments called telodendria.

B. The axon terminals end in terminal boutons

C. The synaptic knobs possess synaptic vesicles that store neurotransmitters.

D. Myelinated axons are found in the grey matter.

109. The axons in the CNS and PNS are called respectively:

A. Nerve and tract B. Tract and nerve

C. Synapse and nucleus D. Tract and nucleus

110. The most abundant neurons in the human body are:

A. Bipolar B. Unipolar C. Multipolar D. Pseudo unipolar

111. The soma of a sensory or pseudo unipolar neuron is located in:

A. Ventral root of a spinal nerve B. Dorsal root ganglion of a spinal nerve

C. Dorsal funiculus of a spinal cord D. Ventral funiculus of a spinal cord

112. Identify the correct statements pertaining to pseudo unipolar neurons.

A. They are afferent neurons. B. They are efferent neurons

C. They are mixed type D. Internuncial

113. The glial cells of peripheral nervous system are:

A. Astroglia B.Oligodendroglia

C.Satellite cells schwann cells D.Microglia

114. Motor and interneurons are:

A. Unipolar B. Multipolar C. Bipolar D.Afferent

115. Multipolar neurons have:

A. One axon and two or more dendrites

B. Many axons and one afferent process

C. A single efferent process and only two afferent processes

D. Many efferent processes.

116. Bipolar neurons are found in:

A. Sensory cells of the internal ear B. Retina of eye

C. Olfactory sensory epithelium D. All the above

117. Study and identify the set of true statements pertaining to myelinated axons.

i. Internodes contain Schwann cells.

ii. The outermost layer of Schwann cell contains only lipids.

iii. In CNS a single oligodendrocytes can myelinate many axons.

iv. The portions of a myelinated axon without myelin sheath are internodes.

A. I & ii B. i, ii& iii C. I & Iii D. iii & iv

118. Identify the set of mismatches

Type of axon	**Occurrence**
I. Myelinated axons	**Grey matter of CNS and ANS**
II. Myelinated axons	**White matter of CNS and most peripheral nerves**
III. Non-myelinated axons	**Grey matter of CNS and ANS**
IV. Non-myelinated axons	**White matter of CNS and most peripheral nerves**

A. ii & iii B. I & ii C.iii & iv D. I & iv

119. Arrange the following in the correct sequence from the myelinated part of an axon to the nerve.

A. Fascicle B. Endoneurium

C. Axolemma D. Epineurium

E. Neurilemma F. Perineurium

G. Myelin sheath

A.C-G-E-B-A-F-D B. C-G-B-E-A-F-D C.C-G-F-B-A-D D. C.G-E-F-B-A-D

120. The cells that provide microenvironment suitable for neuronal activity are:

A. Neuroglia

B. Non-conducting cells of nervous tissue

C. Cytons

D. A& B

121. Study and identify wrong statement from those given below.

A. Neuroglia are cells that continue to divide throughout life.

B. Astrocytes help in providing blood brain barrier.

C. Ependymal cells are non-ciliated cells that line the ventricles of brain and central canal of spinal cord.

D. Satellite cells and Schwann cells are Neuroglial cells of PNS.

122. Neuroglial cells derived from mesoderm are:

A. Oligodendroglia B. Astrocytes

C. Microglia D. Ependymal cells

123. The cells that surround the cytons in ganglia are:

A. Schwann cells B. Astrocytes C. Satellite cells D. Ependymal cells.

124. Identify the correct statement with regard to the node of Ranvier

A. It is covered by myelin sheath

B. Axolemma is discontinuous at nodes of Ranvier.

C. Myelin sheath is discontinuous at the nodes of Ranvier.

D. Both neurilemma and myelin sheath are discontinuous at nodes of Ranvier

125. Phagocytic cells present in brain are:

A. Astrocytes B. Ependymal cells.

C. Microglia D. Oligodendroglia

EXERCISE – 3

1) a	2) a	3) a	4) d	5) a	6) c	7) c	8) a	9) c	10) b
11) d	12) c	13) b	14) b	15) a	16) b	17) c	18) b	19) c	20) d
21) a	22) c	23) b	24) d	25) d	26) b	27) c	28) a	29) d	30) a
31) b	32) b	33) d	34) c	35) c	36) c	37) c	38) a	39) a	40) d
41) C	42) B	43) A	44) B	45) B	46) B	47) D	48) D	49) B	50) A
51) C	52) D	53) C	54) C	55) C	56) A	57) B	58) B	59) C	60) C
61) A	62) A	63) B	64) C	65) C	66) B	67) D	68) B	69) C	70) D
71) D	72) A	73) C	74) C	75) C	76) B	77) D	78) B	79) C	80) D
81) D	82) B	83) A	84) A	85) B	86) C	87) B	88) D	89) A	90) C
91) A	92) C	93) D	94) D	95) C	96) B	97) C	98) C	99) B	100) D
101) D	102) B	103) B	104) B	105) C	106) A	107) D	108) D	109) B	110) C
111) B	112) A	113) C	114) B	115) A	116) D	117) C	118) D	119) A	120) A
121) C	122) C	123) C	124) C	125) C					