

ATKT (sem I)

18/8/2025

Time:3 Hrs.

Marks:75

Q. 1 Attempt all multiple-choice questions (MCQ)

20M

Sr No	Questions	Options	
1	_____ involves the movement of water molecules across the cell membrane.	a.	Osmosis
		b.	Diffusion
		c.	Active transport
		d.	Facilitated diffusion
2	The primary function of the sarcoplasmic reticulum in muscle cells is _____.	a.	To contract the muscle
		b.	To relax the muscle
		c.	To store and release calcium ions
		d.	To synthesize proteins
3	.....is the primary purpose of cell division.	a.	To increase cell size
		b.	To repair damaged cells
		c.	To increase cell number
		d.	To decrease cell number
4	Lymphatic tissue is a specialized form of ---- -----that contains large numbers of lymphocytes	a.	Dense connective tissue
		b.	Loose connective tissue
		c.	Reticular connective tissue
		d.	Areolar connective Tissue
5	.....cells causes liberation of histamine and allergic reactions	a.	RBC's
		b.	Platelets
		c.	WBC's
		d.	Epithelial cells

6	.....of the following is a characteristic of smooth muscle.	a.	Striated appearance
		b.	Voluntary control
		c.	Involuntary control
		d.	Multinucleated cells
7	People with blood group ----- have red blood cells that do not contain either A or B antigen on their surface.	a.	A
		b.	B
		c.	AB
		d.	O
8	The fluid that passes through the lymphatic vessels _____.	a.	Passes from the lymphatic vessels into the arteries
		b.	Enters the left ventricle of the heart through the right thoracic duct
		c.	Moves in a single direction toward the heart
		d.	Flows toward the lungs
9	..... of the following are located in the spleen's white pulp.	a.	Capsules
		b.	T cells
		c.	Sinusoids
		d.	Blood Vessels
10	.....of the following is an example of a joint.	a.	Bone and muscle
		b.	Bone and tendon
		c.	Femur and pelvis
		d.	Skin and muscle
11	The outer covering of peripheral nerve is called _____.	a.	Epineurium
		b.	Perineurium
		c.	Endoneurium
		d.	Neurilemma
12	..... is the outermost layer of the skin.	a.	Dermis
		b.	Hypodermis
		c.	Subcutaneous
		d.	Epidermis

13	The femur bones of the human body are also known as.....	a.	Thigh bones
		b.	Wrist bones
		c.	Shoulder bones
		d.	Collar bones
14	_____ type of joint allows movement in all directions.	a.	Ball and Socket Joint
		b.	Pivot Joint
		c.	Saddle Joint
		d.	Hinge Joint
15	.....part of the eye is responsible for regulating the amount of light entering it.	a.	Cornea
		b.	Iris
		c.	Lens
		d.	Retina
16	..... is the primary function of the cochlea in the ear.	a.	Balance maintenance
		b.	Sound amplification
		c.	Detection of sound vibrations
		d.	Equalizing air pressure
17	Which of the following is responsible for detecting taste sensations?	a.	Olfactory receptors
		b.	Taste buds
		c.	Papillae
		d.	Tympanic membrane

18	..... is the primary function of capillaries.	a.	Pump blood to the heart
		b.	Transport oxygen to tissues
		c.	Exchange nutrients and waste
		d.	Maintain blood pressure
19	..... is a characteristic of smooth muscle	a.	Multinucleated cells
		b.	Striated appearance
		c.	Voluntary control
		d.	Involuntary control
20	Heartbeat originates from the.....	a.	Papillary muscles
		b.	SA node
		c.	AV node
		d.	Purkinje fibres

Q 2. A. Attempt ANY TWO questions of the followings

10×2= 20M

- i. With the help of diagram explain the lifecycle of RBC.
- ii. Draw a neat and labelled diagram of lymph node. Explain the formation, composition and flow of lymph.
- iii. Describe the structure and function of the human eye.

Q 2.B. Attempt ANY SEVEN questions of the followings

5×7= 35M

- i. Explain the passive transport of substances across the plasma membrane.
- ii. Write structural classification of joints.
- iii. Discuss role of platelets in hemostasis & explain extrinsic pathway of coagulation.
- iv. With the help of diagram explain haemopoiesis.
- v. Discuss the effect of sympathetic and parasympathetic nervous system.
- vi. Explain the structure and functions of the tongue.
- vii. Define and explain cardiac output.
- viii. Write brief note on physiology of hearing.
- ix. Explain the structure of heart.
