Time: 3 Hours **Marks: 75**

Q. 1 Attempt all multiple-choice questions (MCQ) **20M**

Sr No	QUESTIONS		OPTIONS
1	The site where most of the ATP is generated in a cell is the _____	a	Nucleus
		b	Mitochondria
		c	Golgi apparatus
		d	Endoplasmic reticulum
2	Nervous tissue is not found in……	a	Brain
		b	Tendons
		c	Nerves
		d	Spinal Cord
3	Cytoplasm of a muscle fibre is called as ……	a	Sarcolemma
		b	Sarcomere
		c	Sarcoplasmic reticulum
		d	Sarcoplasm
4	…… is the smallest bone of the body	a	Incus
		b	Femur
		c	Stapes
		d	Radius
5	Fibroblasts are present in .....tissue	a	Epithelial
		b	Nervous
		c	Connective
		d	Muscular

6	Autonomic nervous system affects _____	a	Reflex actions
		b	Sensory organs
		c	Visceral organs
		d	Blood haemostasis
7	The thymus secretes_____	a	Antibodies
		b	Hormones that mature the red blood cells
		c	Lymph and is the main lymph factory
		d	Thymosin, a hormone thought to aid in the maturation of T lymphocytes
8	_____ is an example of liquid connective tissue	a	Adipose tissue
		b	Elastic connective tissue
		c	Bone
		d	Blood
9	The fluid that passes through the lymphatic vessels_____	a	Moves in a single direction toward the heart
		b	Passes from the lymphatic vessels into the arteries
		c	Enters the left ventricle of the heart through the right thoracic duct
		d	Flows toward the lungs
10	There are _____ pairs of cranial nerves.	a	14
		b	12
		c	18
		d	31

11	For blood coagulation which of the following plasma protein is important _____	a	Globulin
		b	Fibrinogen
		c	Serum amylase
		d	Albumin
12	_____ cells are found in peripheral nervous system.	a	Schwann cells
		b	Microglia
		c	Astrocytes
		d	Oligodendrocytes
13	Cornea is.....	a	Anterior portion of choroid
		b	Anterior portion of sclera
		c	Posterior portion of sclera
		d	Anterior portion of retina
14	_____ is the flight or fight response regulated by sympathetic nervous system.	a	Digesting food
		b	Mobilizing fat reserves
		c	Excreting waste
		d	Inducing sleep
15	This is the reason why the SA node acts as heart's pacemaker.	a	Because it has a poor cholinergic innervations
		b	Because it has a rich sympathetic innervations
		c	Because of its capability of generating impulses
		d	Because it generates impulses at the highest rate
16	..... organ contains the 'Bundle of His'	a	Pancreas
		b	Brain
		c	Kidney
		d	Heart

17	P wave indicates.....	a	Depolarization of right ventricle
		b	Depolarization of left ventricle
		c	Depolarization of both atria
		d	Atria to ventricular conduction time
18	Human heart is covered by a double membrane sac called _____	a	Plura
		b	Kura
		c	Epicardium
		d	Pericardium
19	.....is the largest artery in the body.	a	Aorta
		b	Pulmonary Artery
		c	Coronary arteries
		d	Pulmonary veins
20	The mechanism of coagulation involves following sequence of steps_____	a	Adhesion, aggregation & activation
		b	Activation, aggregation & adhesion
		c	Aggregation. activation & adhesion
		d	Activation, adhesion & aggregation

Q 2. Attempt <u>ANY ONE</u> of the followings **<u>20 M</u>**

I. **a**. Draw a neat labelled diagram of spleen. Discuss the functions of spleen. **5M**

b. Classify peripheral nervous system with the help of schematic representation. Give the effect of sympathetic and parasympathetic nervous system on eye, heart, and GIT. **5M**

II.	**a**. Explain the structure of Cardiac Muscle.	**5M**
	b. Explain the conduction system of the heart.	**5M**
III.	**a.** Give the composition of blood. Add a note on functions of blood cells.	**5M**
	b. Write a note on coagulation of blood.	**5M**

Q 3. Attempt <u>ANY SEVEN</u> of the followings **<u>35 M</u>**

I.	Define tissue. Give location and functions of different epithelial tissues.	**5M**
II.	Define and classify joints.	**5M**
III.	With the help of diagram explain the structure of Synovial joint**.**	**5M**
IV.	Explain the Stroke Volume with its three variables called preload, contractility and afterload.	**5M**
V.	Explain the physiology of muscle contraction.	**5M**
VI.	Explain the physiology of hearing.	**5M**
VII.	Write a note on ABO & Rh system of blood grouping.	**5M**
VIII.	Compare and contrast sympathetic and parasympathetic nervous system.	**5M**
IX.	Explain the Electrocardiogram of normal heart.	**5M**
