

Reg.No. _____



Karunya UNIVERSITY

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

End Semester Examination – Nov/Dec – 2016

Code : 15BT2003

Sub. Name : Human Physiology and Anatomy

Semester : 2016-17 ODD

Duration : 3hrs

Max. marks : 100

Q. No.	Questions	Course outcome	Marks
PART-A (40X1=40 MULTIPLE CHOICE QUESTIONS)			
1.	The structure that separates the right and left nasal cavities is	CO 1	
	a. Intercostals b. Hilum c. Septum d. Epiglottis		(1)
2.	What is the physiological state resulting from abnormally high plasma pH?	CO 1	
	a. Acidosis b. Alkalosis c. Ketosis d. Lactosis		(1)
3.	The renal artery enters the kidney through the-----	CO 1	
	a. Septum b. Hilum c. Glomerulus d. Henle's loop		(1)
4.	Which of the following is not included in the Peripheral Nervous System?	CO 1	
	a. Cranial nerves b. Brain c. Spinal nerves d. Somatic nerves		(1)
5.	There are _____ pairs of sacral spinal nerves.	CO 1	
	a. 12 b. 4 c. 5 d. 8		(1)
6.	The resting potential of a neuronal cell membrane is -----	CO 1	
	a. 30 mV b. 70 mV c. -70 mV d. -30 mV		(1)
7.	The nuclear membrane is made up of ----	CO 1	
	a. proteins b. lipid bilayer c. carbohydrates d. Fats		(1)
8.	The Endoplasmic membrane is made up of -----	CO 2	
	a. Fats b. Cisternae c. chisma d. ribosomes		(1)
9.	The maximum of the energy is produced and released by which of the following organelle?	CO 2	
	a. Nucleus b. DNA c. Golgi apparatus d. Mitochondrion		(1)
10.	The mRNA's in the cells are converted into -----	CO 2	
	a. cytosol b. matrix c. gryana d. cistol		(1)
11.	What is the pH of blood?	CO 2	
	a. 7.2 b. 8.4 c. 7.4 d. 6.2		(1)
12.	The platelets mainly help in -----		
	a. immune defence b. blood clotting c. oxygen transport d. genetic information	CO 2	(1)
13.	----- is the net diffusion of water across a selectively permeable membrane from a region of high water concentration to one that has a lower water concentration.	CO 2	
	a. osmosis b. dialysis c. ionic exchange d. reverse osmosis		(1)
14.	The most important function of the neutrophils and macrophages is -----	CO 2	
	a. engulfment b. phagocytosis c. endocytosis d. exocytosis		(1)
15.	The distal ends of the capillaries of each glomerulus coalesce to form the _____ arteriole.	CO 2	
	a. efferent b. tubules c. proximals d. posterior		(1)
16.	Expand GFR	CO 2	
	a. Glomerular fit rate b. Glomerular filtration rate c. Glomerular flow rate d. Glomerular filling rate		(1)
17.	The signals from peripheral receptors to the CNS are transferred by -----	CO 2	
	a. Afferent neurons b. Efferent neurons c. Interneurons d. neuroglia		(1)
18.	The grey matter of the brain contains ----- axons	CO 2	
	a. Myelinated b. unmyelinated c. Fatty wrapped d. dentrite		(1)

19.	The somatosensory is projected on the front of -----				CO 2	
	a. Temporal lobe	b. frontal lobe	c. parietal lobe	d. ear lobe		(1)
20.	Inside the spinal cord ----- sends signals to the cells.				CO 3	
	a. Reflex arc	b. neurons	c. motor signals	d. synaptic arc		(1)
21.	Which enzyme in the cell dissolves the bacterial cell membrane?				CO 3	
	a. Lysosome	b. lysozyme	c. lytic acid	d. Lactic acid		(1)
22.	Ribosome helps in the synthesis of -----				CO 3	
	a. RNA	b. mRNA	c. proteins	d. DNA		(1)
23.	----- controls much of the fluidity of the membrane as well.				CO 3	
	a. Proteins	b. lipids	c. cholesterol	d. fatty acids		(1)
24.	Many of the ----- provide structural channels for diffuse between the extracellular and intracellular fluids.				CO 3	
	a. Integral protein	b. External proteins	c. membrane proteins	d. structural proteins		(1)
25.	Which is the largest organelle of the cell?				CO 3	
	a. Nucleus	b. Endoplasmic reticulum	c. Mitochondria	d. Golgi apparatus		(1)
26.	Give the site of platelet production in the human body.				CO 3	
	a. Bone marrow	b. Thymus	c. spleen	d. Liver		(1)
27.	The entire outside surface of the cell often has a loose carbohydrate coat called the -----.				CO 3	
	a. Glycolipid	b. Glycocalyx	c. Proteocalyx	d. Proteosome		(1)
28.	----- are the main mediators of bacterial defence and inflammation.				CO 3	
	a. Monocytes	b. Basophiles	c. Eosinophiles	d. Granulocytes		(1)
29.	How many classes of WBC are there -----				CO 3	
	a. 5	b. 9	c. 3	d. 4		(1)
30.	Which among the following cells lacks a nucleus?				CO 3	
	a. Eosinophils	b. Neutrophils	c. Erythrocytes	d. Monocytes		(1)
31.	What is the functional unit of a kidney?				CO 3	
	a. Neuron	b. Nephron	c. Neuroglia	d. Necron		(1)
32.	There are ----- pairs of cervical spinal nerves				CO 3	
	a. 6	b. 8	c. 5	d. 12		(1)
33.	----- is a recording of electrical activity of heart conducted through ions in body to surface				CO 3	
	a. ECG	b. EGG	c. EPG	d. EFG		(1)
34.	Depolarization of both atria in heart denotes the -----				CO 3	
	a. R wave	b. S wave	c. Q wave	d. P wave		(1)
35.	Hemoglobin is made up of four subunits and can bind up to four----- molecules				CO 3	
	a. nitrogen	b. Oxygen	c. Hydrogen	d. Carbon		(1)
36.	As the level of carbon dioxide in the blood increases, more ----- is produced				CO 3	
	a. Fe +	b. H+	c. CHO-	d. OH-		(1)
37.	----- is the transparent, colorless gelatinous mass that fills rear two-thirds of the eyeball				CO 3	
	a. Retina	b. Vitreous Humour	c. Ciliary Body	d. Iris		(1)
38.	The elongated cells of the sensory layer of the retina are -----				CO 3	
	a. Rods and cones	b. Cones and cylinders	c. Pupil and cones	d. retina		(1)
39.	The tympanic membrane is also known as the -----				CO 3	
	a. Middle ear	b. ear drum	c. Outer ear	d. Eustachian tube		(1)

40.	----- is a device or system that converts one form of energy to another in the ear.			CO 3	
	a. Auditory periphery	b. Tonotopic	c. Cochlea	d. Transducer	(1)

PART B(8 X 5 = 40 MARKS) (ANSWER ANY EIGHT)

41.	List out the cell organelles and write the function of any two organelle.	CO 1	(5)
42.	Discuss about the various transports through cell membrane	CO 1	(5)
43.	Blood components - Explain	CO 1	(5)
44.	Draw the structure of kidney and write short notes on dialysis	CO 2	(5)
45.	Describe the role of nephron in urine formation	CO 2	(5)
46.	Elucidate the importance of respiratory system by its function	CO 2	(5)
47.	What is ECG? Explain briefly about the cardiac cycle	CO 3	(5)
48.	Illustrate the structure of Heart and write the function of any two major parts.	CO 3	(5)
49.	Classify the nervous system with subclasses	CO 3	(5)
50.	Explain the structure of eye with visual pathways	CO 3	(5)

PART C(2 X 10 = 20 MARKS) (ANSWER ANY TWO)

51.	Draw the structure of animal cell and discuss in details about blood grouping	CO 1	(10)
52.	What are all the components of respiratory system? Discuss briefly about cardiac cycle	CO 2	(10)
53.	Describe the structure of neuron and write short notes on EEG	CO 3	(10)

ALL THE BEST