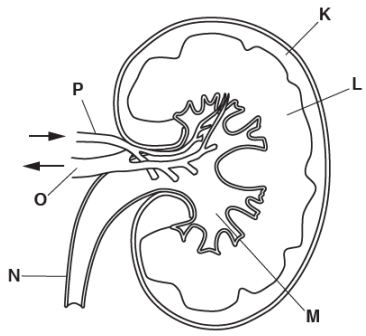
Name: **Enrolment No:**	UPES UNIVERSITY WITH A PURPOSE

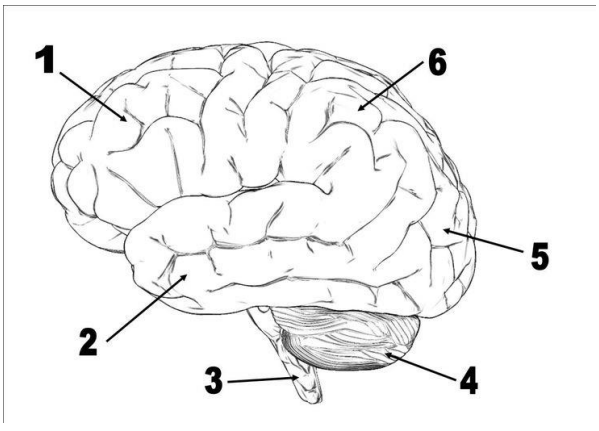
UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Theory Examination, May 2023

Course: Human Anatomy and Physiology-II **Semester: II**
Program: B. Pharm **Time 03 hrs.**
Course Code: BP201T **Max. Marks: 75**
Instructions: Read the Question Paper Carefully.

SECTION A

S. No.	CO	Multiple Choice Questions (20X1)/Fill in the blanks/True or False	Marks
Q1			**20**
1	CO1	During internal and external respiration, gases move by the process of a. osmosis b. active transport c. diffusion d. endocytosis	1
2	CO2	The hormone secreted from anterior pituitary gland is…… a. Oxytocin b. Vasopressin c. Renin d. Cortisone	1
3	CO3	Impulse conduction is fastest in neurons that are: a. Myelinated b. unmyelinated c. sensory d. motor	1
4	CO4	In the diagram given below L and M represent  Fig. 4.1	1
5	CO5	In adrenal gland, Zona glomerulosa releases ……hormone a. cortisone b. aldosterone c. Adrenaline d. Dehydroepiandrosterone	1

6	CO1	Spermatogonia are the least mature cells line the basement membrane inside the tubule. a. True b. False	1
7	CO2	Which portion of stomach opens into small intestine? a) Cardiac portion b) Fundic portion c) Pyloric portion d) Body portion	1
8	CO3	Thyroxine is the hormone secreted from thyroid gland, is important for the metabolism of carbohydrates and fats. Iron is essential for the synthesis of thyroxine. a. True b. False	1
9	CO4	Karyotypes are abbreviated by the total number of chromosomes, a comma, and the sex chromosomes of an individual. For example The notation 46,XX denotes a normal female; 46,XY, a normal male; and 45,X (or sometimes 25,XO) an individual who has only one X chromosome, a condition that produces Turner's syndrome. a. True b. False	1
10	CO5	Which lobe of the cerebrum performs the function of planning and execution of any movements such as eye movements? a. Frontal Lobe b. Parietal Lobe c. Temporal Lobe d. Occipital Lobe	1
11	CO1	The mammalian thymus is located in the……, anterior to the major vessels of the heart, and ventral to the base of the heart and aortic arch	1
12	CO2	Name any two methods used for the measurement of BMR.	1
13	CO3	In digestive system, HCl is secreted from a. Mucous cells b. Parietal cells c. Chief cells d. None of the above	1
14	CO4	Surface tension of the alveolar fluid is reduced by the presence of a. mucus b. sebum c. surfactant d. water	1
15	CO5	The beta cells in the pancreas secretes insulin, ……..is secreted from alpha cells. a. Glucagon b. Vasopressin c. Thyroxine d. Somatostatin	1

16	CO1	Which structure predominates in the white matter of the brain? a. myelinated axons b. neuronal cell bodies c. ganglia of the parasympathetic nerves d. bundles of dendrites from the enteric nervous system	1
17	CO2	……. is the volume of air moved between one normal inhalation and one normal exhalation. a. Tidal volume b. Vital capacity c. Inspiratory reserve volume d. Expiratory reserve volume	1
18	CO3	Cushing's disease is a disorder caused by _____. a. abnormally low levels of cortisol b. abnormally high levels of cortisol c. abnormally low levels of aldosterone d. abnormally high levels of aldosterone	1
19	CO4	Name the terminator stop codons involved in protein synthesis.	1
20	CO5	What is "Translation"? (one line answer)	1
SECTION B			
Long Answers (Answer two out of 3) 2X10			
Q2			**20**
1	CO4	Define 'Spermatogenesis'. Discuss in detail about spermatogenesis and male sex hormones.	2+8
2	CO5	Draw a neat, labelled diagram of the Digestive System. Explain the anatomy and functions of accessory organs involved in the process of digestion.	3+7
3	CO4	Label the given diagram.  Discuss the functions of cerebellum and cerebrum.	3+7
SECTION C			

Short Answers (Answer 7 out of 9) 7X5 word limit not more than 200 words			
Q3			**35**
1	CO1	Differentiate myelinated and unmyelinated nerve fibres.	5
2	CO2	Discuss about the functions of hormones secreted from posterior pituitary gland.	2.5+2.5
3	CO3	Explain how gaseous exchange takes place during the respiration process.	5
4	CO1	Discuss about the events occurring during menstrual cycle phase in females.	5
5	CO2	Explain the functions of oxyntic cells, zymogen cells and mucous cells in digestion process.	5
6	CO3	What is “Expiratory Reserve Volume” and “Inspiratory Reserve Volume” in Respiration?	2.5+2.5
7	CO1	Discuss the process of thyroid hormone secretions and their functions (T3, T4 and Calcitonin).	5
8	CO2	What is the glomerular filtration rate (GFR)? How kidney helps in regulating blood pressure?	5
9	CO3	Discuss in detail about the functions of female sex hormones.	5
		Total	**75**