

K23U 2387

Reg. No. :

Name :

V Semester B.Sc. Degree (CBCSS – O.B.E. – Regular/Supplementary/ Improvement) Examination, November 2023 (2019 – 2021 Admissions) CORE COURSE IN ZOOLOGY 5B06ZLG : Animal Physiology

Time : 3 Hours

Max. Marks : 40

Instruction : Give illustrations and figures wherever necessary.

- I. Essay questions. Each question carries 8 marks. Answer any two. (2×8=16)
 - 1) Elaborate the ultrastructure of skeletal muscle. Describe the events associated with muscle contraction.
 - 2) Elaborate the process of urine formation.
 - 3) Write an essay on the major endocrine glands in man and their associated hormones.

4) Explain how a nerve impulse is conducted along a nerve fibre.

II. Short Essay. Each question carries 4 marks. Answer any two.

- 5) Explain sliding filament theory.
- 6) Explain oestrus cycle.
- 7) Explain how carbon dioxide is transported in human body.

III. Short answer questions. Each question carries 2 marks. Answer any six. (6×2=12)

- 8) Define ossification. Which are the types of ossification ?
- 9) Differentiate between uniport and symport system.
- 10) Write a note on placental hormone.
- 11) Which are the functions of connective tissue ? \triangle
- 12) What is the peculiarity of SA node ?
- 13) Define summation of action potential.
- 14) Write a short note on cholecystokinin.
- 15) Define osmoconformers.

 $(2 \times 4 = 8)$

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IV. Mul	tiple choice questions. Each question car	ries	0.5 marks. Answ	er all .	(8×0.5=4)
16)	During which phase of the menstrual c in preparation for potential embryo imp A) Menstrual phase	ycle lant B)	e does the uterine ation ? Follicular phase	e lining thi	icken
	C) Ovulatory phase	D)	Luteal phase		
17)	Which of the following endocrine glands is responsible for regulating calcium levels in the body ?				
	A) Pituitary gland	B)	Thyroid gland		
	C) Parathyroid glands	D)	Adrenal glands		
18)	What is the main driving force for glom	erul	ar filtration in the	e kidneys	?
	A) Blood pressure in the glomerulus				
	 B) Concentration of electrolytes in the glomerulus 				
	C) Hormones produced by the adrenal	gla	nd		
	D) Blood pH in the renal arteries				
19)	Hemoglobin is composed of four pro subunits contain heme groups for oxyg	tein Ien I	subunits. How binding ?	many of	these
	A) One B) Two	C)	Three	D) Four	7
20)	Which neurotransmitter is associated with the brain and is often linked to addic	pleasure and re and mood regul	ward path ation ?	hways	
	A) Serotonin B) Dopamine	C)	Acetylcholine	D) Gluta	mate
21)	What is the primary function of the enz	yme	e pepsin in the d	igestive sy	ystem?
	A) Breaking down carbohydrates into s	suga	ars		
	 B) Breaking down fats into fatty acids and glycerol 				
	C) Breaking down proteins into smaller	r pe	ptides		
	D) Emulsifying lipids in the stomach		22		
22)	What is the name of the neurotransmitteneuromuscular junction to signal musc A) Dopamine	er re le c	eleased by moto ontraction ?	r neurons	at the
	B) Serotonin	_			
	C) Acetylcholine				
	D) GABA (Gamma-Aminobutyric Acid)	16	RRARV		
23)	What effect does a decrease in pH (inc	reas	sed acidity) have	on the ox	kygen-
	binding capacity of hemoglobin in the Bohr effect ?				
	A) It increases hemoglobin's attinity for	rox	ygen		
	B) It decreases hemoglobin's affinity for	or ox	kygen		
	C) It has no effect on nemoglobin's affi	nity	ior oxygen		