

[Total Marks: 70

Instructions: (1) Draw neat and labeled diagram wherever necessary.

> (2) Figures to the right side indicate full marks for the question.

Seat No. _____

- (3) Attend all five questions. 1 Answer the following questions in short: 4 (a) **(1)** Electric ray fish is belongs to class of pisces. **(2)** ____ is commonly called flying dragon. Approximately how many gonads are present on (3) each side in Amphioxus.
 - In amphioxus the fertilization is external. (true **(4)** or false)
 - 2 Answer any one of the following question: (b)
 - Explain unfertilized ovum of Amphioxus. **(1)**
 - Write any two characters of Gnathostomata.
 - (c) Answer any one of the following question. 3
 - (1) Write any four characters of protochordata.
 - (2) Explain gonads of Amphioxus.
 - (d) Answer any one of the following question: 5
 - Write characters of Reptiles. (1)
 - Explain: holoblatic cleavage of Amphioxus. (2)

2	(a)	Answer the following questions in short:			
		(1)	Which type of Antigen and Antibody is present in 'A' blood group.		
		(2)	Who gave the theory of natural selection ?		
		(3)	In rabbits the pigments are completely absent.		
		(4)	injection is used for the preventing of Erythroblastosis foetalis.		
	(b)	Answer any one of the following question:			
		(1)	Write reasons for incompleteness of fossils.		
		(2)	What is Rh factor ?		
	(c)	Answer any one of the following question:			
		(1)	Explain: Types of fossils.		
		(2)	Write characters of multiple allels.		
	(d) Answer any one of the following question:				
		(1)	Explain: ABO blood group.		
		(2)	Explain: Phylogeny of horse.		
3	(a)	Answer the following questions in short:			
		(1)	Spermatogenesis occurs in the tubules of the male testes.		
		(2)	In blood, a fluid component is called as		
		(3)	The erythrocytes develop from the of vertebrates.		
		(4)	Which enzyme is involved in lipid digestion ?		
	(b)	Answer any one of the following question:			
		(1)	Write a note on Neutrophiles.		
		(2)	What is Gametogenesis?		
	(c)	Answer any one of the following question:			
		(1)	Explain: Absorption of protein.		
		(2)	Explain: Blood platelets.		

	(d)	Ans	Answer any one of the following question: 5				
		(1)	Describe blood components in brief.				
		(2)	Describe Oogenesis in brief.				
4	(a)	Answer the following questions in short:					
		(1)	Emoibiasis is caused by				
		(2)	Name the hosts in which Trypanosoma compits life cycle.	letes			
		(3)	Which harmful parasite having juping move?	ment			
		(4)	are used to provide food.				
	(b)	Ans	swer any one of the following question:	2			
		(1)	Explain: Brooders.				
		(2)	Write the symptoms of filariasis.				
	(c)	Answer any one of the following question:					
		(1)	Write the prevention of Gambia fever.				
		(2)	Explain: multiple deck method of poultry	house.			
	(d)	Answer any one of the following question:					
		(1)	Describe fresh water aquarium in brief.				
		(2)	Describe life cycle of Trypanosoma.				
5	(a)	Answer the following questions in short:					
		(1)	What is the average age of Menopause?				
		(2)	Name the animals having Hooves.				
		(3)	In which phase woman's ovaries become inact	tive?			
		(4)	There is chambered heart in the Amphib	ians.			
	(b)	Answer any one of the following question.					
		(1)	Write the cause of Menopause.				
		(2)	Explain: Epidermal derivatives.				
DB	X-003	-1012	020] 3	[Contd			

- (c) Answer any one of the following question: 3
 - (1) Explain: Origin of heart.
 - (2) Explain: Hooves with example.
- (d) Answer any one of the following question: 5
 - (1) Describe comparison of heart between Amphioxus and Aves.
 - (2) Describe: Evolution of heart.

DBX-003-1012020]