B.Sc. DEGREE EXAMINATION – DECEMBER 2019.

Second Year

Zoology

VERTEBRATE ZOOLOGY

Time: 3 hours Maximum marks: 75

PART A — $(5 \times 5 = 25 \text{ marks})$

Answer any THREE questions.

- 1. Enumerate the general characteristic features of prochordata.
- 2. Comment on affinities and systematic position of Balonoglossus.
- 3. What are the physical constrains of cutaneous respiration? comment them.
- 4. Give an account on poison apparatus of snakes.
- 5. Give an account on evolutionary significance of archeopteryx.

- 6. Write about the dentition in mammals.
- 7. Comment on the exoskeleton of pigeon.
- 8. Write about the adaptive feature of anura and urodela?

PART B —
$$(5 \times 10 = 50 \text{ marks})$$

Answer any FIVE questions.

- 9. Discuss in detail about origin of chordata.
- 10. Explain the scientific classification, characteristic features and reproduction of urodela.
- 11. Describe in detail the circulatory system of calotes.
- 12. Write detailed notes on flight adaptations of birds.
- 13. Elaborate aquatic mammals and their adaptations to suit in the aquatic environment.
- 14. Explain the digestive system of rabbit.
- 15. Detail account of the parental care of fishes.
- 16. Explain the reproductive system of shark.

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B.Sc. DEGREE EXAMINATION – DECEMBER, 2019.

Second Year

Zoology

GENERAL CHEMISTRY

Time: 3 hours Maximum marks: 75

PART A — $(5 \times 5 = 25 \text{ marks})$

Answer any FIVE questions out of Eight questions.

1.	(a) (b)	Define: Weight percentage. Discuss the coordinate-covalent bond example.	(2) with (3)
2.	(a)	What is Polymerisation reaction? example.	Give
	(b)	What is RF value?	(2)
3.	(a)	What is Buna-S rubber?	(2)
	(b)	Define: Autocatalysis with example.	(3)
4.	(a)	What is a monomer?	(2)
	(b)	Give the preparation of polythene.	(3)

5.	(a)	What is disaccharides? Give an example. (3)		
	(b)	Point out the uses of Chloramine-T.	2)		
6.	(a)	What are water soluble vitamins?	2)		
	(b)	Discuss the diseases caused by the deficient of vitamin A.	су 3)		
7.	(a)	What is greenhouse effect?	3)		
	(b)	How would you handle the easily vaporisab chemicals.	le 2)		
8.	(a)	Discuss the effect of air pollution. (3)		
	(b)	Give any two laboratory safety rules.	2)		
		PART B — $(5 \times 10 = 50 \text{ marks})$			
Answer any FIVE questions out of Eight questions.					
9.	(a)	Discuss about inter and intra molecula hydrogen bond with suitable example.	ar 6)		
	(b)	Write a short note on primary and secondar standard solution?	ry 4)		
10.	(a)	Write a note on ionic bond.	4)		
	(b)	Elaborate on molarity, molality are normality with example.	nd 6)		

11.	(a)	Write a note on elimination reactions with suitable example. (5)
	(b)	Elaborate on fractional crystallisation. (5)
12.	(a)	Compare the principle and applications of thin layer and paper chromatography. (6)
	(b)	Write a note on fractional distillation method. (4)
13.	(a)	Discuss the preparation and applications of Teflon. (4)
	(b)	Write a note on Michaelis Menton equation (6)
14.	(a)	Write a note on Analgesic and anti-inflammatory drugs. (4)
	(b)	Discuss about vitamin B and C. (6)
15.	(a)	Discuss the use of penicillin, chloromycetin and tetracycline. (6)
	(b)	Define the terms : Antibiotics and anaesthetics. (4)
16.	(a)	Write a note on radioactive pollution. (5)
	(b)	Discuss about first aid techniques. (5)

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B.Com./B.B.A. DEGREE EXAMINATION — DECEMBER, 2019.

ENVIRONMENTAL STUDIES

Time: 3 hours Maximum marks: 75

PART A — $(3 \times 5 = 15 \text{ marks})$

Answer any THREE questions.

All questions carry equal marks.

1. Write about the importance of environmental studies.

சுற்றுச்சூழலியலின் முக்கியத்துவத்தைப் பற்றி எழுதுக.

2. Discuss the over-exploitation of natural resources.

இயற்கை வளங்களை அதிகமாக சுரண்டுவதைப் பற்றி விவாதி.

3. Write about the eco system.

சுற்றுச்சூழல் பற்றி எழுதுக.

- 4. Give an account on conservation of biodiversity. பல்லுயிர் பாதுகாப்பு பற்றி எழுதுக.
- 5. Write about the land resources.

நில வளங்களை பற்றி எழுதுக.

PART B —
$$(4 \times 15 = 60 \text{ marks})$$

Answer any FOUR questions.

All questions carry equal marks.

- Describe the food resources.
 உணவு வளங்களை பற்றி எழுதுக.
- 7. Describe the structure and function of ecosystem. சுற்றுச்சூழலின் கட்டமைப்பு மற்றும் செயல்பாட்டை பற்றி விவரி.
- Explain the energy flow in the ecosystem.
 சுற்றுச்சூழலில் ஆற்றல் ஓட்டத்தைப் பற்றி விளக்குக.
- 9. Give brief account on India as a mega diversity nation.

இந்தியாவைப் பொறுத்தவரையில் ஒரு மிகப்பெரிய பன்முகத் தன்மை கொண்ட நாடு எனக் குறிப்பிடுக.

10. Discuss the types and effects of air pollution.

காற்று மாசுபாட்டின் வகைகள் மற்றும் விளைவுகளை பற்றி விவாதி.

11. Discuss any five legal provisions to protect the environment.

சுற்றுச்சூழலைப் பாதுகாப்பதற்கான ஏதேனும் ஐந்து சட்ட விதிகளைப் பற்றி விவாதி.

12. Discuss the role of information technology in environment and human health.

சுற்றுச்சூழலுக்கும் மனித ஆரோக்கியத்திற்கும் உள்ள தகவல் தொழில் நுட்ப பங்கு பற்றி விவாதி.

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