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SCIENCE (Theory) — Paper II (Botany and Zoology)

Time Allowed : $2\frac{1}{2}$ Hours]

i Maximum Marks : 100

Instruction: Check the question paper for fairness of printing. If there is any lack of fairness, inform the Hall Supervisor immediately.

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			SECT	rion – A			
			ВС	TANY			
			(Mar	rks:50)			
1.	Cho	Choose and write the correct answer:					
	1.	1. The fungal disease on rice plant is					
		a)	tikka disease	b)	canker		
		c)	wilt	d)	blast disease.		
	2.	The	e edible part in jackfruit rep	resents			
		a)	Ovule	b)	Pericarp		
	*	c)	Perianth	d)	Ovary.		
	3. ,	Wh	o coined the term 'vaccine'	?			
		a)	Alexander Flemming	b)	Woodruff		
		c)	William Kuhne	d)	Edward Jenner.		
	4.	The	air pollutant photochemic	al smog is	due to		
		a)	Sulphur dioxide	b)	Carbon monoxide		
		c)	Nitrogen oxides	d)	Lead.		
	5.	5. The water that is available to the plant is					
		a)	Capillary water	b)	Hygroscopic water		
		c)	Dew	d)	Gravitational water.		

II.	Fill	in the blanks with suitable terms: $5 \times 1 = 5$
	6.	The oxides of nitrogen, sulphur and carbon produce
	7.	The collection of findings of Samuel Hahnemann is called
	8.	forms different forms of dal.
	9.	The process of separation of fibres is called
	10.	help in the joining of the new strands of DNA during replication.
III.	Ans	wer any five of the following questions in one or two sentences each:
		$5 \times 2 = 10$
	11.	Define eutrophication.
	12.	How is Neem used traditionally?
	13.	Define eco-friendly agriculture.
	14.	What are lenticels?
	15.	Draw a labelled diagram of Stoma in open condition.
	16.	Represent the anaerobic breakdown of glucose in an equation.
	17.	Draw a labelled diagram of capsule.
	18.	What is senescence?
	19.	What is a drupe ? Give an example.
	20.	What is the role of yeast in baking and brewing industry?
IV.		te short answers for any <i>four</i> of the following questions in 100 words each. w diagrams wherever necessary. Question No. 22 is compulsory.
		$4 \times 5 = 20$
	21.	Distinguish between DNA and RNA.
	22.	Draw the schematic representation of Calvin's cycle.
	23.	Explain Hydrochory with examples.
	24.	Write a note on the role of bacteria in industry.
	25.	What are the effects of noise pollution?
	26.	Describe the methods of cultivation.
	27.	Write a note on applications of Biotechnology.
V.	Writ	e a detailed answer for any one of the following questions in about

 $1 \times 10 = 10$

200 words. Draw diagrams wherever necessary.

28. What are Phytohormones? Write a note on auxins.

29. Describe Hypogeal Germination with an example.

SECTION - B

ZOOLOGY

(Marks : 50)

VI.	Cho	ose a	nd write the correct answer :			$5 \times 1 = 5$	
	30.	The posterior thick walled chamber of a frog's heart is the					
		a)	Auricle	b)	Ventricle		
		c)	Conus arteriosus	d)	Sinus venosus.		
	31.	Thro	ombus leads to		Sypamic Rich.	45	
		a)	Cirrhosis	b)	Obesity	39 k	
		c)	Pleurisy	d)	Heart attack.	VI	
	32.		sperm produces a substance of nmals it is called	enzy	matic nature called sperr	n lysin. In	
		a)	Hyaluronic acid	b)	Hyaluronidase		
		c)	Oestrogen	d)	Androgen.		
	33. Glandular stem cells from pancreas give rise to						
		a)	Erythrocytes	b)	Leucocytes	.03	
		c)	Thrombocytes	d)	Beta cells.		
	34.	At the	he age of 15 days the vaccine gi	ven a	as per the schedule of imn	nunization	
		a)	MMR AND SEE SEE	b)	Measles	387	
		c)	Polio	d)	BCG. Stand House Shill		
VII.	Fill	in the	e blanks with suitable terms:			$5 \times 1 = 5$	
	35. Teeth embedded in sockets is termed						
WEX	36.	[.]	is the first Nation	al Pa	rk in India.	X Wrete	
	37.	77. In the embryonic stem cell culture, the mouse embryonic skin					
		calle	ed layer.				
	38.		is the study of in	nmu	nity.		
	39.		is an instrume	nt us	sed to measure blood press	sure.	

VIII. Answer any five of the following questions in one or two sentences each:

 $5 \times 2 = 10$

- 40. Define the term 'assimilation'.
- 41. Draw a labelled diagram of artery.
- 42. What is bronchitis?
- 43. Define Telolecithal egg.
- 44. List the organs derived form Mesoderm.
- 45. Expand IUCN.
- 46. Name the few fauna found in the Thar desert.
- 47. Define hypertension.
- 48. What is meant by Polyurea?
- 49. Define Dialysis.
- IX. Write short answers for any *four* of the following questions in 100 words each. Draw diagrams wherever necessary. Question No. 53 is compulsory.

 $4 \times 5 = 20$

- 50. Write short notes on the Urinogenital system of female frog.
- 51. Write short notes on the head of frog.
- 52. Explain the hormones secreted by Neurohypophysis.
- 53. Draw a labelled sketch of human ovum.
- 54. Write short notes on Man in Biosphere.
- 55. Write a short note on CHD.
- 56. Give an account of organ transplantation.
- X. Write detailed answer for any *one* of the following questions in 200 words. Draw diagrams wherever necessary. $1 \times 10 = 10$
 - 57. Describe the steps involved in tissue culture in animals.
 - 58. Explain the composition of blood.