Reg. No	2		

B.Tech DEGREE EXAMINATION, DECEMBER 2023

Seventh Semester

18GEO101T - BEHAVIORAL BIOLOGY

(For the candidates admitted during the academic year 2020 - 2021 & 2021 - 2022)

Note:

i. Part - A should be answered in OMR sheet within first 40 minutes and OMR sheet should be handed over to hall invigilator at the end of 40th minute.

ii. Part - B and Part - C should be answered in answer booklet.

Time: 3 Hours			Max. Marks: 100			
PART - A (20 × 1 = 20 Marks) Answer all Questions		Marks BL	CO			
1.	A(n) signal is fast and requires dayl on the sense of sight.	light with no obstructions because it relies (B) auditory	1 = 1	1		
	(A) visual (C) acoustic	(D) reflexive				
2.	2. Loss of responsiveness to stimuli that convey little or no new information is called			1		
	(A) habituation (C) impregnation	(B) saturation (D) engorgement				
3.	enhance an organism's fitness. (A) Evolution (C) Learning	ing behaviour by selecting for traits that (B) Practice (D) Enhancement	1 1	1		
4.	The presence of altruistic behaviour in anim (A) kin selection (C) intraspecific competition	nal kingdom is due to (B) sib-sib rivalry (D) cannibalism	1 1	1		
5.	A chemical produced by an animal that ser of the same species is called a(A) pheromone (C) hormone	ves as a communication to another animal (B) morphogen (D) signal protein	1 1	2		
6.	Kinesis is a type of movement response influenced by intensity of the(A) stimulus (C) individual	where the speed or rate of movement is (B) signal (D) competition	1 1	2		
7.	Sparrows are receptive to learning songs behaviour is known as(A) imprinting (C) juvenile response	only during a sensitive period and this (B) nativity (D) enhancement	1 1	2		
8.	The behaviour wherein a female mates wit for the offspring	th multiple males and leaves males to care (B) polygyny	1 1	2		
	(C) polygamous	(D) oligandry		_		
9.	The type of conditioning that involves ei known as conditioning (A) operand (C) non-classical	ther positive or negative consequences is (B) classical (D) selective	1 1			

10.	An animal will exhibit behaviour that maximal (A) reproductive (C) genetic	misesfitness. (B) survival (D) physiological	1	1	3
11.	The final song that the song bird members produce is known as asong.			1	3
	(A) crystallised (C) mature	(B) mating (D) juvenile	1		
12.	The cockroach's movement towards dark hi (A) negative phototaxis (C) negative geotaxis	ding places indicates (B) positive phototaxis (D) positive geotaxis	1	1	3
13.	signal is long-lasting and works (A) Olfactory (C) Light	s at night. (B) Auditory (D) Kinetic	1	1	4
14.	4. The type of training that causes specifically trained dogs to salivate when they hear bells is conditioning.				- 4
	(A) classical (C) operand	(B) non-classical (D) appetite			
15.	Feeding behaviour with a high energy intak (A) optimal foraging (C) supra-optimal foraging	e-to-expenditure ratio is called (B) sub-optimal foraging (D) efficient foraging	1	1	4
16.	16. In the territorial behaviour of stickleback fish, the red belly of one male elicits attack from another male by functioning as a			1	4
	(A) sign stimulus(C) threatening object	(B) bait(D) intimidating object			
17.	Which is one way an endothermic animal ca (A) Shivering (C) Sweating	an respond to being cold? (B) Panting (D) Shedding	1	1	5
18.	Which of the following is a learned behavio (A) Dog sitting when told to (C) Whale migrating	ur ? (B) Turtle hatchling crawling (D) Peacock courting	1	2	5
19.	The behaviour of young ducks following the (A) imprinting (C) imitation	eir mother is known as (B) mimicking (D) parental behaviour	1.	1	5
20.	The daily cycle of activity that occurs in 24-(A) circadian rhythm (C) solar rhythm	hour period is (B) lunar rhythm (D) quarterly rhythm	1	, I	5
	PART - B $(5 \times 4 = 20 \text{ Marks})$ Answer any 5 Questions			s BL	CO
21.	1. Write a note on "individual learning" with a suitable example.		4	2	1
22.	2. Define the term "local enhancement" with an appropriate example.		4	2	1
23.	3. Write a short note on the phenomenon of social facilitation.		4	2	2
24.	4. Write a note on oblique transmission with a suitable example.		4	2	2
25.	25. Define the term social grooming.			2	3
26.	6. Write a brief account on migration in monarch butterflies.			2	4
27.	7. Write a note on fight or flight response.		4	2	5

	PART - C (5 × 12 = 60 Marks) Answer all Questions		Marks BL	
28.	 (a) Write a detailed account on Pavlovian conditioning with suitable examples. (OR) (b) Write an essay on different types of learning behaviour in animals. 	12	2	1
29.	 (a) Write a detailed account on Grant's finches and bird-song evolution. (OR) (b) Write an essay on imitation and copying behaviour in animals. 	12	2	2
30.	(a) Write a detailed account on family dynamics with the concept of inclusive fitness. (OR)	12	2	3
	(b) Write an essay on kinship, kin selection and kin recognition.			
31.	(a) Write a detailed account on different types of communication observed in animals.	12	2	4
	(OR)			
	(b) Write an essay on cooperative behaviour and coalition behaviour.			_
32.	(a) Write a detailed account on play behaviour with suitable examples. (OR)	12	2	5
	(b) Write a detailed essay on aggression and aggressive interactions.			
