PSG COLLEGE OF ARTS & SCIENCE (AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2025

(Second Semester)

Branch - ZOOLOGY

DEVELOPMENTAL BIOLOGY

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

 $(10 \times 1 = 10)$

Module No.	Question No.	Question	K Level	СО
1	1	The onset of spermatogenesis starts at a) Puberty b) Birth c)Adulthood d) Intercourse	K1	CO1
	2	The parthenogenesis is also called as a) Syngamy b) Fusion c) Fertilization d) Virgin birth	K2	CO2
2	3	In the gastrulation process of amphioxus, which organogenesis occurs from the following? a) Neuralization b) Notogenesis c) Mesogenesis d) All of the above	K1	CO1
	4	What lies between the medulla oblongata and spinal cord in frogs a) Foramen lacerum b) Foramen magnum c) Foramen ovale d) Foramen of monro	K2	CO2
3	5	The process which begins after the fertilization is known as a) Embryogenesis b) Cleavage c) Organogenesis d) Spermatogenesis	K1	CO1
	6	How much pairs of somites found in 24 hours of chick development? a) 1 b) 3 c)4 d) 5	К2	CO2
	7	Portion of placenta contributed by the embryo is a) Chorion b) Yolk sac c)Amnion d) Allantois	K1	CO1
4	8	The follicular phase in the menstrual cycle is called as a) Menstrual phase b) Luteal phase c) Proliferative phase d) Secretory phase	K2	CO2
5	9	In transgenic animals, what is a faster mother? a) From which embryo is derived b) Into which embryo is implanted c) Whose genes are used d) From which embryonic stem cells are derived	K1	CO1
	10	Semen is preserved in the liquid nitrogen which temperature is a) 20° C b) - 20°C c)196°C d) 4° C	K2	CO2

Cont...

SECTION - B (35 Marks)

Answer ALL questions

		ALL questions carry EQUAL Marks	(5×7)	= 35)
Module No.	Question No.	Question	K Level	co
1	11.a.	Analyze the process of Oogensis.	K4	CO4
	(OR)			
	11.b.	List out the function of egg membranes.		
	12.a.	What do you know about gene differentiation?		
2	(OR)			CO3
	12.b.	Examine the cleavage types with neat sketch.		
	13.a.	Explain about the gastrulation.		
3	(OR)		K5	CO5
	13.b.	Compile the induction of embryo development in vertebrates.		
	14.a.	Survey the types of placenta.	К3	CO3
4		(OR)		
	14.b.	Illustrate the structure of an egg with reference of rabbit.		
	15.a.	What is embryo transfer?	-	
. 5		(OR)	K4	CO4
	15.b.	Explain the process of AI.		1

SECTION -C (30 Marks) Answer ANY THREE questions ALL questions carry EQUAL Marks $(3 \times 10 = 30)$

Module No.	Question No.	Question	K Level	СО
1	16	Analyze the events takes place during spermatogenesis.	K4	CO4
2	17	Explain the organogenesis with reference to brain in frog.	K5	CO5
3	18	Compile the extra embryonic membranes in chick.	K5	CO5
4	19	What is sexual cycle? Explain its in detail with sketch.	K4	CO4
5	20	Design the steps in the production of chimeric mouse.	K4	CO4