

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)**

**BSc DEGREE EXAMINATION MAY 2024
(Second Semester)**

Branch – ZOOLOGY

DEVELOPMENTAL BIOLOGY / EMBRYOLOGY

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Acrosome of sperm contains the following acid for the penetration of egg a) Hyaluronic acid b) HCL c) H ₂ SO ₄ d) Amino acids	K1	CO1
	2	The process of forming an egg from the follicle is known as a) Follicular phase b) Luteal phase c) Oogenesis d) Spermatogenesis	K2	CO2
2	3	Frogs egg is an _____ egg. a) Alecithal b) Mesolecithal c) Oligolecithal d) Microlecithal	K1	CO1
	4	Wather Vogt (1925) used which staining method for the constructions of fate map of amphibians ? a) Vital staining b) Janes blue c) Giemsa staining d) Methylene blue	K2	CO2
3	5	Chick egg is, which of the following type ? a) Cleidoic egg b) Non- Cleidoic egg c) Alecithal egg d) Fluid mosaic egg	K1	CO1
	6	During chick egg development, the egg undergo which type of cleavage? a) Alecithal b) Meroblastic c) Oligolecithal d) Meridional	K2	CO2
4	7	The size of rabbit egg is _____. a) 0.1 mm b) 0.1 cm c) 0.1 nm d) 0.1 μm	K1	CO1
	8	Rabbit possess the placenta which falls on ? a) Discoidal b) Zonary c) Monodiscoidal d) Bidiscoidal	K2	CO2
5	9	IUI stands for a) Interuterine insemination b) Intrauterine insemination c) Intratubal insemination d) Intrauterine tuboperitoneal insemination	K1	CO1
	10	Chimeric mouse production involves the injection of ES cells into _____. a) Blastocoel b) Archenteron c) Micromere d) Macromere	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 structure of a mammalian sperm.	K4	CO4
	(OR)			
	11.b.	Give an account on egg membranes.		
2	12.a.	Examine the fate map of <i>Amphioxus</i> .	K3	CO3
	(OR)			
	12.b.	What is cleavage? What happens after the cleavage?		
3	13.a.	Compile the extra embryonic membranes in chick.	K5	CO5
	(OR)			
	13.b.	Discuss the structure of chick's egg with neat sketch.		
4	14.a.	Analyze the development of extra-embryonic membrane in Rabbit.	K3	CO3
	(OR)			
	14.b.	Explain the hormones with their role and origin.		
5	15.a.	What do you know about embryo cloning?	K4	CO4
	(OR)			
	15.b.	Discuss the types of AI.		

SECTION -C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks

(3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Analyze the importance of parthenogenesis with its types.	K4	CO4
2	17	Explain the development process of eye in frog.	K5	CO5
3	18	How the embryonic induction happens? Explain it as narrated by Spemann and Mangold.	K5	CO5
4	19	Criticize the different types of placenta in mammals.	K4	CO4
5	20	Discuss about IVF.	K4	CO4

Z-Z-Z

END