



A Charutar Vidya Mandal's Institution
VP & RPTP SCIENCE COLLEGE
(AUTONOMOUS) (Grant-in-Aid)
Affiliated to Sardar Patel University
VALLABH VIDYANAGAR-388120



B.Sc. SEMESTER-VI INTERNAL EXAMINATION-2026
US06MAZOO01 (DEVELOPMENTAL BIOLOGY)

DATE: 06/03/2026 Friday

TIME: 10:45 AM TO 12:15 AM

MARKS: 30

Question 1: Multiple-choice Questions.

06 Marks

1. In fishes & insects the sperm penetrate the egg through a special canal, _____.
A. Macropyle
B. Micropyle
C. Prosopyle
D. Both A & B
2. The outermost layer of a mature graafian follicle is called, _____.
A. Zona pellucida
B. Theca Interna
C. Theca externa
D. Zona radiata
3. The blastocoel is filled with a gelatinous substance called, _____.
A. Gray crescent
B. Mesodermal crescent
C. Blastomeres
D. Blastocoel jelly
4. According to their development definition, somites are fundamentally, _____.
A. Paired segments
B. Unpaired blocks
C. Continuous plates
D. Neural derivatives
5. Which hormone has the highest biological activity in the frog metamorphosis?
A. Thyroxine
B. Tri-iodothyronine
C. Thyrotropic hormone
D. Tyrosine
6. From which layer do migrating cells move towards the midline to form the streak?
A. Hypoblast
B. Endoderm
C. Epiblast
D. Mesoderm



Question 2: Explain the Acrosomal reaction in fertilization in details.

06 Marks

OR

Question 2: Write a short note on Haploid parthenogenesis in Rotifers.

06 Marks

Question 3: Explain the process of cleavage in Amphioxus in details.

06 Marks

OR

Question 3: Write a short note on Physiology of Placenta.

06 Marks

Question 4: Explain the organization of the unfertilized egg in details. *frog*

06 Marks

OR

Question 4: Write a short note on the formation of neural tube in frog.

06 Marks

Question 5: Write a short note on Formation of the primitive streak in chick.

06 Marks

OR

Question 5: Write a short note on 48 hours chick embryo.

06 Marks



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**B.Sc. SEMESTER-VI Quiz - 2026****US06MAZOO01 (DEVELOPMENTAL BIOLOGY)**

DATE: 06/03/2026 Friday

TIME: 20 Minutes

MARKS: 15

1. _____ egg membrane are produced by the follicle cells immediately surrounding the developing oocyte. [Primary / Secondary]
2. _____ cleavage occurs when the entire egg divides completely by each cleavage furrow. [Holoblastic / Meroblastic]
3. The primordial gastric cavity formed during gastrulation is known as the, _____. [Gastrocoel / Archenteron]
4. The _____ is the opening leading from the archenteron to the exterior. [Blastopore / Blastocoel]
5. The brown & black pigment of an amphibian egg is concentrated in the _____ hemisphere. [Animal / Vegetal]
6. The process by which a tadpole changes into an adult frog is called _____. [Metamorphosis / Incubation]
7. The developing chick gets food from the _____. [Yolk / Shell]
8. The egg takes about _____ to hatch. [21 days / 40 days]
9. In a Mermaid's purse, the shell is secreted by the follicle cells. [True / False]
10. Thelytoky is a type of parthenogenesis where only males are produced. [True / False]
11. In amphioxus, gastrulation is initiated by invagination at the vegetal pole. [True / False]
12. Differentiation can be morphological, behavioural or chemical. [True / False]
13. Tadpoles have lungs for breathing. [True / False]
14. Adult frogs have four chambers in their heart. [True / False]
15. The amnion contains fluid that cushions the embryo. [True / False]

