

**C. ABDUL HAKEEM COLLEGE (AUTONOMOUS),
MELVISHARAM - 632 509.
SEMESTER EXAMINATIONS, NOVEMBER - 2018**

**B.Sc., ZOOLOGY SEMESTER V
U15MZL502 – DEVELOPMENTAL BIOLOGY AND IMMUNOLOGY**

Time: Three Hours

Maximum: 75 Marks

SECTION - A (10 X 2 = 20 Marks)

Answer **ALL** Questions.

1. Leydig's cells.
2. Oviducts.
3. Spiral cleavage.
4. Infundibulum.
5. LH.
6. IVF.
7. Primary antibody.
8. Thymus.
9. B-cell.
10. Immunogen.

SECTION - B (5 X 5 = 25 Marks)

Answer **ALL** Questions.

11. a) Describe the process of Spermatogenesis.
(Or)
b) Briefly describe the events of fertilization.
12. a) Describe the patterns of cleavage in *Amphioxus*.

(Or)

- b) Describe the process of gastrulation in Frog.
13. a) Write a brief account on placentation in Mammals.

(Or)

b) Describe artificial insemination.

14. a) Briefly describe about Secondary Lymphoid Organs.

(Or)

b) Write a short note on the lymphatic role of Bone Marrow.

15. a) Describe the structure of immunoglobulin with illustration.

(Or)

b) Give an account of primary immunodeficiency diseases.

SECTION - C (3 X10 = 30 Marks)

Answer **ANY THREE** Questions.

16. Classify the types of Parthenogenesis.
17. Describe the fate map of Frog and Chick.
18. Write an essay on the Test tube babies.
19. Write an essay on various types of immunity.
20. What is autoimmunity? Discuss the non-organ-specific autoimmune diseases.
