

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

**M.Sc., ZOOLOGY SEMESTER III
P15MZL302 – DEVELOPMENTAL BIOLOGY**

Time: Three Hours

Maximum: 75 Marks

SECTION - A (5 X 6 = 30 Marks)

Answer ALL Questions.

1. a) Give a brief account of sperm structure in a mammal.

(Or)

b) Describe briefly about the fate maps in Chordates and their embryological significance.

2. a) Give an account of the Mammalian pattern of sex determination.

(Or)

b) Give an account of the formation of eye in a vertebrate.

3. a) Write a short essay on the nuclear transplantation experiments.

(Or)

b) Give an account of cell death and aging.

4. a) Give an account of the molecules involved in cell adhesion during development.

(Or)

b) Comment on the role of extracellular matrix.

5. a) Highlight any two genetic disorders during human development.

(Or)

b) Write a short note on stem cell regeneration.

SECTION - B (3 X 15 = 45 Marks)

Answer ANY THREE Questions.

6. Give a detailed account of fertilization mechanism in sea urchin.

7. Discuss the origin and development of Heart in a model Vertebrate.

8. Give a detailed account of regeneration in a Mammalian liver.

9. Write an essay on cell-cell signaling during development.

10. Discuss about cancer as a developmental disease.
