

## **M-6532**

**M.Sc. (III<sup>rd</sup> Semester) Examination, 2020**

### **ZOOLOGY**

**(Developmental Biology)**

***Time Allowed : Three Hours***

***Maximum Marks : 70***

***Minimum Pass Marks : 28***

**Note :** Attempt any five questions, selecting one question from each unit.

#### **Unit - I**

**Q. 1.** Describe the mutation & identification of developmental genes. **14**

**Or**

**Q. 2.** Describe the mitosis cell division. Write the importance of crossing over. **14**

#### **Unit - II**

**Q. 3.** What is morphogenesis ? Explain the process of morphogenesis. **14**

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**P.T.O.**

**(2)**

**Or**

**Q. 4.** Write note on any two of the following : **7+7=14**

- (i) Formation of blastula
- (ii) Segment polarity genes

#### **Unit - III**

**Q. 5.** What is organogenesis ? Explain the development of proximal distal & dorso-ventral axis formation. **14**

**Or**

**Q. 6.** Write notes on : **7+7=14**

- (i) Insect compound eye,
- (ii) Development of butterfly wing

#### **Unit - IV**

**Q. 7.** What is regeneration ? Explain the regeneration of salamander limb. **14**

**Or**

**Q. 8.** Describe the growth hormones. **14**

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**(3)**

**Unit - V**

**Q. 9.** Explain the gene expression and human disease. **14**

**Or**

**Q. 10.** Write short note : **7+7=14**

- (i) Teratogenic agents like alcohol
- (ii) Phenotypic variability

