

Exam. Code : 103205

Subject Code : 1408

B.A./B.Sc. Semester—V

ZOOLOGY

(Developmental Biology)

Paper—Zoo-V A

Time Allowed—3 Hours]

[Maximum Marks—35

Note :— In all, **FIVE** questions are to be attempted. Question No. 1 is compulsory. The remaining **FOUR** questions are to be attempted from Sections I, II, III and IV selecting at least **ONE** from each Section.

I. Give short answers for the following :—

- (a) Egg membranes.
- (b) Parthenogenesis.
- (c) Fate maps.
- (d) Cleavage.
- (e) Types of mammalian placenta.
- (f) Organizers and Inductors.
- (g) Determination and Differentiation. 1×7

SECTION—I

II. Give an account of egg membranes and polarity of egg.

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(Contd.)

- III. Describe female gametogenesis with particular reference to vitellogenesis and role of follicle cells in gametogenesis. 7

SECTION—II

- IV. Describe the development of three germinal layers and their fate in *Herdmania*. 7
- V. What is Fertilization ? Discuss the process in detail. 7

SECTION—III

- VI. Give a comparative account of development of three germinal layers and their fate in chick and rabbit. 7
- VII. Give an account of foetal membranes, their formation and role. 7

SECTION—IV

- VIII. Describe the process of metamorphosis in frog. 7
- IX. Give in detail the structure of mammalian placenta, its formation and functions. 7