

2017

(6th Semester)

ZOOLOGY

Paper : ZL-X

(**Developmental Biology**)*Full Marks : 55**Time : 2½ hours*

(PART : B—DESCRIPTIVE)

(Marks : 35)

*The figures in the margin indicate full marks
for the questions*

1. What do you mean by parthenogenesis?
Describe the different processes of
parthenogenesis giving suitable examples. 1+6

Or

Mention the different types of egg with
labelled diagrams. 7

2. Write down the gastrulation process in
Amphioxus. 7

Or

What are the functions of placenta? Describe
the classifications of mammalian placenta. 3+4

3. Explain the gradient theory with experimental
evidences. 7

Or

Discuss the concept of embryonic induction
giving examples. 7

4. Write about the metamorphosis of insect and
its hormonal regulation. 7

Or

Describe the process of regeneration in
invertebrates. 7

5. Explain the developmental defects. 7

Or

Write an account on IVF. 7

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Subject Code : ZOO/VI/10

Booklet No. A

Date Stamp

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To be filled in by the Candidate

DEGREE 6th Semester
(Arts / Science / Commerce /
.....) Exam., **2017**

Subject

Paper

INSTRUCTIONS TO CANDIDATES

- 1. The Booklet No. of this script should be quoted in the answer script meant for descriptive type questions and vice versa.**
- 2. This paper should be ANSWERED FIRST and submitted within 45 minutes of the commencement of the Examination.**
- 3. While answering the questions of this booklet, any cutting, erasing, over-writing or furnishing more than one answer is prohibited. Any rough work, if required, should be done only on the main Answer Book. Instructions given in each question should be followed for answering that question only.**

To be filled in by the Candidate

DEGREE 6th Semester
(Arts / Science / Commerce /
.....) Exam., **2017**

Roll No.

Regn. No.

Subject

Paper

Descriptive Type

Booklet No. B

*Signature of
Scrutiniser(s)*

*Signature of
Examiner(s)*

*Signature of
Invigilator(s)*

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(6th Semester)

ZOOLOGY

Paper : ZL-X

(Developmental Biology)

(PART : A—OBJECTIVE)

(Marks : 20)

The figures in the margin indicate full marks for the questions

SECTION—A

(Marks : 5)

Put a Tick (✓) mark against the correct answer in the
brackets provided : 1×5=5

1. Thelytoky refers to

(a) complete parthenogenesis ()

(b) incomplete parthenogenesis ()

(c) haploid parthenogenesis ()

(d) diploid parthenogenesis ()

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(2)

2. The developed chick embryo which has an F-shaped is

(a) 24 hours ()

(b) 33 hours ()

(c) 48 hours ()

(d) 72 hours ()

3. On reaching the blastopore lips, the cells migrate inwards by rolling over the lateral and ventral lips of blastopore in the process of

(a) invagination ()

(b) involution ()

(c) ingression ()

(d) None of the above ()

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(3)

4. Among vertebrates, the regeneration process is most astonishing in

(a) amphibian ()

(b) reptilian ()

(c) avian ()

(d) mammalian ()

5. The hormone which helps in maintenance of pregnancy and prevents premature parturition is

(a) oestrogen ()

(b) progesterone ()

(c) relaxin ()

(d) None of the above ()

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(4)

SECTION—B

(Marks : 15)

Write short notes on the following in not more than
5 to 8 sentences each : 3×5=15

1. Cleavage

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(5)

2. Invagination

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(6)

3. Morphogenetic fields

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(7)

4. Thyroxine

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(8)

5. Pluripotent stem cell

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