

This question paper contains 3 printed pages]

BF—104—2016

FACULTY OF SCIENCE

B.Sc. (First Year) (Second Semester) EXAMINATION

NOVEMBER/DECEMBER, 2016

ZOOLOGY

Paper IV

(Developmental Biology)

(MCQ+Theory)

(Friday, 9-12-2016)

Time : 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

- N.B. :—*
- (i) Use separate answer-sheet (OMR) for Question No. 1.
 - (ii) One mark to each correctly answered of MCQ.
 - (iii) Negative marking system is applicable.
 - (iv) Use black ball point pen to darken the circle of correct choice in OMR answer-sheet.
 - (v) Darken only one circle for the answer of an MCQ.
 - (vi) Draw a well labelled diagram, wherever necessary for Q. Nos. 2, 3 and 4.

(MCQ)

1. Select the *correct* answer for each of the following MCQs : 10
- (i) Spermiogenesis is the process in which
 - (a) Spermatids changes into spermatozoa
 - (b) Spermatogonia produces spermatid
 - (c) Spermatocytes give rise to spermatozoa
 - (d) Spermatozoa multiply by meiotically
 - (ii) The sertoli cells nourish the developing
 - (a) Ovum
 - (b) Sperm and ovum
 - (c) Spermatozoa
 - (d) None of these
 - (iii) When the egg contains small amount of yolk it is said to be egg.
 - (a) Teleolecithal
 - (b) Microlecithal
 - (c) Megalecithal
 - (d) Alecithal

P.T.O.

- (iv) The egg of frog is
- (a) Diploid (b) Both (a) and (c)
(c) Polyploidy (d) Haploid
- (v) In frog fertilization is
- (a) Monospermy (b) Biospermy
(c) Triospermy (d) Tetraspermy
- (vi) First cleavage plane in frog is
- (a) Vertical (b) Meriodinal
(c) Equatorial (d) Transverse
- (vii) In chick embryo the main function of chorion is
- (a) Excretion and respiration
(b) Digestion and respiration
(c) Respiration and protection
(d) Digestion and excretion
- (viii) Cotyledonary type of placenta is found in
- (a) Cow (b) Pig
(c) Camel (d) Dog
- (ix) The maintenance and repair of tissue is a function of
- (a) Stem cells (b) Embryonic stem cells
(c) Adult stem cells (d) Nervous stem cells
- (x) In bees types of parthenogenesis is occur.
- (a) Artificial (b) Obligatory
(c) Haploid (d) Natural

(Theory)

2. Describe the process of spermatogenesis.

10

Or

Write notes on :

- (a) Types of egg on the basis of amount of yolk.
(b) Test tube baby.

3. Describe the process of fertilization in frog.

10

Or

Write notes on :

(a) Blastula of frog.

(b) Causes of infertility in male.

4. Describe the structure of yolk sac and allantois and add a note on its function.

10

Or

Write notes on :

(a) Metadiscoidal placenta

(b) GIFT technique.