

UG/3rd Sem/H/20(CBCS)

2020

ZOOLOGY (Honours)

Paper : ZOOL-H-DC-7-T

(Developmental Biology and Reproductive Biology)
(CBCS)

Full Marks : 25

Time : Two Hours

The figures in the margin indicate full marks.

*Candidates are required to give their answers
in their own words as far as practicable.*

1. Answer any *eight* questions : $\frac{1}{2} \times 8 = 4$

- (a) Nervous system develops from embryonic ectoderm. (True/False)
- (b) End product of Spermatogenesis is _____. (Fill in the blank)
- (c) Name the enzyme which helps dissolve the egg membrane at the time of fertilization.
- (d) Eggs of mammals are centrolecithal. (True/False)
- (e) A solid ball of cell produced in cleavage is known as _____. (Fill in the blank)
- (f) Define cleavage.
- (g) Testosterone, the male sex hormone, is synthesized in the Vas-deference. (True/False)
- (h) Write the name of “father of modern embryology”.
- (i) Write one example of teratogen.
- (j) Give an example of hormone which binds to the intracellular receptor.
- (k) Write down the full form of SRY.
- (l) Give one example of Glycoprotein hormone.

2. Answer any *two* questions : 2½×2=5
- (a) Differentiate Spermatogenesis and Oogenesis.
 - (b) Classify eggs with examples on the basis of distribution of yolk.
 - (c) Briefly mention the two commonly used reproductive technologies for sex selection.
 - (d) Elucidate the positive and negative aspects of amniocentesis.
3. Answer any *four* questions : 4×4=16
- (a) Describe the process of spermatogenesis with suitable diagram.
 - (b) Describe the process of Oogenesis.
 - (c) Give an account of extra-embryonic membranes of chick.
 - (d) Define placenta. Mention the types of placenta in mammals on the basis of histological tissue/layers and its significance. 1+2+1=4
 - (e) Define primitive streak. Draw a labelled diagram showing primitive streak in chick embryo. Mention its significance. 1+2+1=4
 - (f) Define 'Modern Contraceptive Method'. Describe the modern contraceptive technologies. 1+3=4
 - (g) What is embryo transfer? Mention the different steps involved in "*in vitro* fertilization". 1+3=4
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