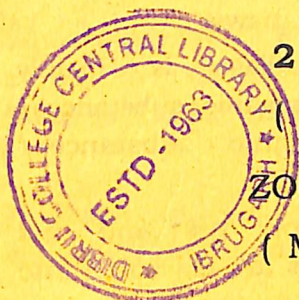


Total No. of Printed Pages—5

4 SEM TDC ZOO M 1 (N/O)



2016

(May)

ZOOLOGY

(Major)

94P 1187 S (152)
04/08/16

Course : 401

(Cell Biology, Histology and Histochemistry)

Full Marks : 48

Pass Marks : 19/14

Time : 2 hours

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

(New Course)

Answer Question No. 1 and **any three** from the rest

1. (a) Fill in the blanks : 1×4=4

- (i) Ribosomes are absent in mature mammalian _____.
- (ii) Nucleosome is the octamer of _____ protein.
- (iii) Combination of dye and mordant is termed as _____.
- (iv) Mammary gland is modified _____ cells.

(2)

(b) Choose the correct answer : $1 \times 2 = 2$

(i) Matrix of cartilage is mainly composed of inorganic substances/ canaliculi/ organic substances/ Harversian canal.

(ii) Depending upon pH and net charge, the dyes are classified into 2/3/4/5 types.

(c) Write short notes on any two of the following : $3 \times 2 = 6$

(i) Receptor-mediated endocytosis

(ii) Metachromatic stain

(iii) Heterochromatin

(d) Differentiate between any two of the following : $3 \times 2 = 6$

(i) Simple epithelium and stratified epithelium

(ii) Active and passive transports

(iii) DNA packaging in prokaryotes and eukaryotes

2. Define cell signalling. Explain endocrine signalling. How does it differ from autocrine signalling? $2+6+2=10$

3. What are the different types of ribosome? Explain the structure and function of 80S ribosome. $2+4+4=10$

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(Continued) P16/751

(3)

4. What is cell cycle? Write about the molecular events in different phases of interphase. What is the significance of G_0 ? $2+6+2=10$

Or

Describe the histological structure of muscle with suitable diagram. 10

5. Write on/Answer either a and b or c and d : $5 \times 2 = 10$

(a) Histological structure of pancreas

(b) Explain programmed cell death.

Or

(c) Models of chromosomal movements

(d) Compare among vital, supravital and intravital stainings.

(Old Course)

(A) Cell Biology

(Marks : 32)

Answer Question No. 1 and any two from the rest

1. (a) Fill in the blanks : $1 \times 4 = 4$

(i) _____ chromosomes are found in animal oocyte.

(ii) Microsomes are originated from _____.

(Turn Over)