2017

ZOOLOGY

(Major)

Paper : 3.1

(Comparative Anatomy and Histology)

Full Marks : 60

Time : 3 hours

The figures in the margin indicate full marks for the questions

1. Fill in the blanks (any *three*) : 1×3=3

(a) Blood is fluid _____ tissue.

(b) Lining of colon made up of _____ epithelium.

(c) Toluidine blue is an example of _____ dye.

(d) The cell body of neuron is called _____.

2. Write True or False (any *two*) : 1×2=2

(a) Smooth muscles are also known as striated muscles.

(b) The integument acts as an organ of excretion.

(c) Acetoorcein is a chromosomal stain.

3. Answer the following questions : 1×2=2

(a) What kinds of muscles constitute the heart?

(b) Name the hearing part of the inner ear of human.

4. Write notes on any *four* from the following : 2×4=8

(a) Difference between bones and cartilage

(b) Hypothyroidism

(c) Gram staining

(d) Mode of respiration in amphibia

(e) Mordant

(f) Neuron

5. Answer/Write on any *three* from the following : 5×3=15

(a) Comparative account of brain in fish and amphibia

(b) Draw a labelled sketch of mammalian kidney.

(c) Respiratory organs of fishes

(d) Principles and procedures of histological staining in nucleic acid

(e) Different types of scales in fishes

(Continued)

6. Answer any *three* from the following questions : 10×3=30

(a) Write about different types of epithelial tissue with suitable diagrams.

(b) Give a comparative account of thyroid gland in reptiles and mammals.

(c) Give a brief account of embryonic development and organization of kidney in vertebrate series.

(d) Give a comparative account of integument in vertebrates.

(e) Write the principles and procedures of silver staining method for detecting protein in polyacrylamide gels.

(f) Draw a labelled diagram of brain in mammal and describe its advancement over reptilian brain.

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