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End Semester Examination of Semester–I, 2015
Subject : ZOOLOGY (PG)
Paper : ZPGT–102 (Gr A + Gr B)
Full Marks : 40
Time : 2 Hrs

The figures in the margin indicate the marks corresponding to the question

Candidates are requested to give their answers in their own word as far as practicable.

Illustrate the answers wherever necessary.

Use separate Answer scripts for Group A and Group B

Group A

Answer **Question No. 1** and
any one out of **Question No. 2** and **Question No. 3**

1. Answer **any five** questions : 5x2=10

   i) What is hydropathy plot?

   ii) What types of synthetic events would you expect to occur in G_1 that do not occur in G_2?

   iii) What are Weibel-Palade body? Where do they occur?

   iv) Name the enzymes involved in cellular detoxification process.

   v) What are cadherin? State its role.

vi) State the importance of nucleolar organizer.

vii) What is the function of peroxisome in the cell.

viii) State the chemical composition of microtubules.

2. a) What is proteasome?

b) Compare microtubule with microfilament.

c) Mention the importance of Cholesterol in membrane structure. 2+3+5

3. a) Write a note on hemidesmosome.

b) Describe eukaryotic cell cycle check points with proper diagram.

c) How many centrioles does a cell have at metaphase of mitosis?

d) Describe the role played by integrin in cellular adhesion. 2+4+1+3

Group B

Answer **Question No. 1** and
any one out of **Question No. 2** and **Question No. 3**

1. Answer **any five** questions : 2X5=10

i) What is ultratome?

ii) Mention the key histological features of justaglomerular complex.

iii) Write the principle of PAS reaction.

iv) Briefly mention the hisotological features of pseudo stratified epithelium.

v) Write two biomedical implications of collagen fibre.

vi) Briefly mention the characteristic features of Fibroblasts.

vii) What are the different planes of histological sections?

viii) Blood is a specialized connective tissue — justify.

2. a) Classify cartilage according to the composition of matrix.

b) Name different modifications of epithelial all surface with proper diagram and occurrences.

c) How remodeling of broken long bone can occur? 3+4+3

3. a) Briefly describe the histological features of mammalian Thymus.

b) Give a brief account of the histolosy of Adrenal Medulla.

c) Write the principle of Feulgen reaction. 4+4+2