

M.Sc. 2nd Semester Examination in Zoology, 2020

ZCP - 214

Total Marks = 25

Date: 29 December, 2020

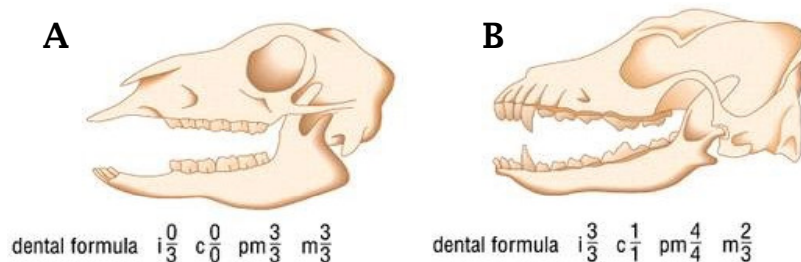
Time: 12:00 - 12:30 pm

Venue: Google Meet Virtual Platform

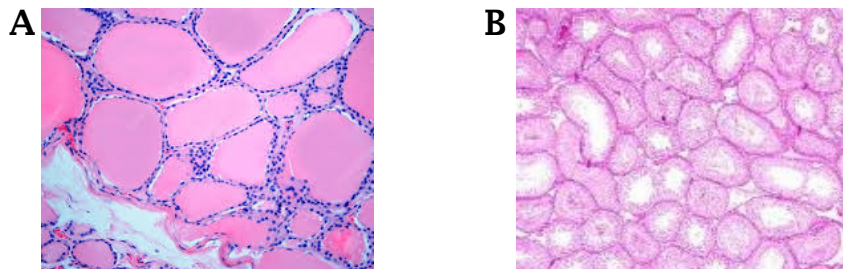
Group A

Answer any 3 questions; each question bears 5 marks (5x3=15 marks)

1. A tissue culture dish contains 6 million adherent cells. Can you distribute it equally in a 24-well tissue culture plate? Explain the methodology with rationale and calculate how many cells each well shall contain. How did you arrive at your conclusion. How would you test whether these are viable cells?
2. A compound 'X' has a molecular weight of 124. How would you make a 500 ml solution of 'X' with a concentration of 150 mM?
3. Comment on the feeding behavior of the animals based on their dentition pattern shown below with reasons.



4. You have been given two tubes, each containing 100 μ l of a colorless solution and a UV-Vis spectrophotometer. One tube contains protein and the other contains DNA. How will you determine which tube contains DNA? How will you quantify the contents.
5. Identify the sections with 3 characteristic features and mention the major secretions of the glands.



Group B

Viva (10 marks)

Time: 12:30 pm onwards

(approx. 10 mins per student)

Venue: Google Meet Virtual Platform

Students are requested to join their respective groups as per their roll numbers