KALIACHAK COLLEGE

2021

ZOOLOGY (General)

Paper Code: ZGT - IV - A & B

INSTRUCTION TO THE CANDIDATES

1. On the top of the every page of your answer script write your name, Registration no. session, Roll no. , Subject, Paper code, page no. , candidate signature and date of examination.

2. After completion of the examination take pictures or scan all the pages of your answer script serially as per the page number and make a single pdf file, Rename the file by your name and paper code.

3. Send the pdf file to this email id: zoologykaliachakcollege@gmail.com

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INSTRUCTION FOR MCQ QUESTIONS

 Candidates are required to attempt all questions (MCQ).

Below each question, four alternatives are given [i.e. (A), (B), (C), (D)]. Only one of these alternatives is 'CORRECT' answer.

The candidate has to write the Correct Alternative [i.e. (A)/(B)/(C)/(D)] against each Question No. in the Answer Script.

Example — If alternative A of 1 is correct, then write:

1. — A

 There is no negative marking for wrong answer.

Zoology (General)

Paper Code: IV-A

Full Mark – 10 **Time– 30 minutes**

Answer all questions.
Choose the correct answer.
Each question carries 1 mark.

1. The function of the centrosome is
a. Formation of spindle fibres
b. Osmoregulation
c. Secretion
d. Protein Synthesis

2. Which cell organelle is involved in apoptosis?
a. Lysosome
b. ER
c. Golgi Bodies
d. Mitochondria

3. Smallest cell organelles are?
a. Microsome
b. Lysosome
c. Dictyosome
d. Ribosome

4. Main amino acids in the plasma membrane are?
a. Arginine & Lysine
b. Histidine & Glycine
c. Tryptophan & Alanine
d. Methionine & Tryptophan

5. DNA replication occurs through the activity of
a. DNA polymerase
b. RNA polymerase
c. Ribonuclease
d. Deoxyribonuclease

6. One of the following acts as a an initiator codon
a. U U U
b. U U C
c. A U G
d. A A A

7. The human beings having XXY or XX YY chromosomes develop
a. Clinefelter's syndrome
b. Turner's syndrome
c. Down's syndrome
d. None of the above

8. One of the following is a specific stain for DNA
a. Basic fuchsin
b. Fehling's solution
c. Iodine solution
d. Benedict's solution

9. Paraffin embedded sections of tissue are cut by
a. Electron beams
b. Sharp knife
c. Laser
d. Microtome

10. What is a general tissue staining?
a. Haematoxylin & eosin
b. Toluidine blue
c. Sudan-IV
d. Eosin

ZOOLOGY (General)
Paper Code : IV - B
[New Syllabus]

Full Marks: 40 Time: One Hour Thirty Minutes

The figures in the margin indicate full marks.

Unit - 1
(Histology, Cell Biology & Genetics)

2. Answer two questions from the following- 4x2=08 Marks

a. Write the difference between euchromatin and heterochromatin? What is repetitive DNA?

b. Write the role of Y Chromosome in the determination of sex in human. What is genome?

c. What is mordant? Write the composition and function of bouin's fluid.

d. What are lysosome. Give the functions of lysosome?

3. Answer any one question from the following- 12x1=12 Marks

a. What do you mean by Mendelian disorder? Write the cause, symptoms and types of thalassemia. 2+3+4+3 = 12

b. What is deletion & duplication? Briefly describe the different translocation process. Write the classification of chromosome on the basis of their centromere position. What is split gene & jumping gene? 2+4+4+2=12

c. Why sphase is important in cell cycle? Write the check points of a cell cycle. Briefly describe the histological structure of Pancreas and name the hormones and their function secrets from Pancreas? 1+2+3+6=12

Unit – 2

(Developmental Biology & Endocrinology)

3. Answer any two questions: 4×2=8

a. Write the location and major function of – Corpus luteum and Graafian follicle. 2+2= 4

b. Classify hormone on the basis of chemical structures.

c. State briefly the hormonal regulation of oogenesis.

d. Write a short note on sperm capacitation in mammal.

4. Answer any *one* question: 12×1=12

a. Name the different hormone secreted by the anterior lobe of pituitary. Explain their role in physiology. 4+8=12

b. Explain the hypothalamic control of pituitary hormonal functions. 12

c. Describe with examples the different types of reproductive cycle in mammals. 12