

KALIACHAK COLLEGE

2021

ZOOLOGY (General)

Paper Code: ZGT - V - 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

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: V-A

Full Mark – 10

Time– 30 minutes

- 1) Vitamin essential for blood clotting is _____
 - a. Vitamin k
 - b. Vitamin A
 - c. Vitamin B
 - d. Vitamin C

- 2) A nerve impulse jump from one _____ to another during saltatory condition.
 - a. Synapse
 - b. Axon
 - c. Node of Ranvier
 - d. Myelin Sheath

- 3) Which of the following is the contractile protein of a muscle?
 - a. Tubulin
 - b. Myosin
 - c. Troponin
 - d. All of these.

4. Ligases are also known as _____

- a. Synthetase
- b. Synthase
- c. Both
- d. None

5) Transamination reaction is catalyzed by which enzyme?

- a. Amino transferase
- b. Amino acid dehydratase
- c. Transaminase
- d. Both a & c

6) DNA finger printing was developed by

- a. Francis Crick
- b. Khorana
- c. Alec Jeffrey
- d. James Watson

7) Restriction endonucleases are usually supplied in _____

- a. 10% glycerol
- b. 30% glycerol
- c. 50% glycerol
- (d) 80% glycerol

8) Migration of cancerous cells from the site of origin to other part of the body forming secondary tumours is called

- a. Diapedesis
- b. Metastasis
- c. proliferation
- d. None of these

9) How many hydrogen bonds are required to form bonding between adenine and thymine?

- a. Thousands
- b. 1
- c. 2
- d. Not fixed

10) Which of the followings are the characteristic feature of DNA replication

- a) DNA replication is template directed
- b) DNA replication requires short RNA primers
- c) DNA replication is a highly accurate process
- d) All of the Above

2021
Zoology (General)
Paper code -V-B

Full mark – 40

TIME: 1 HOUR 30 MINUTES

UNIT-1

1. Answer any *two* questions: 4×2=8
 - a) Give an account of gene therapy.
 - b) Write a short note on embryo cloning.
 - c) State briefly how DNA finger printing help in forensic sciences.
 - d) Write short note on Northern blotting.

2. Answer any one question: 12×1=12
 - a) Describe the key experiment that suggests that DNA replication is the semiconservative. Explain the role of helicase and topoisomerase in DNA replication. 8+2+2=12
 - b) What do you mean by major and minor groove in DNA? State their importance. Describe the clover leaf model of tRNA with suitable diagram. 4+2+6=12
 - c) Describe in brief about different types of cloning vectors used in recombinant DNA technology. Describe the use of RFLP and southern blotting in forensic sciences. 6+6=12

UNIT- 2

3) Answer any two Question 4×2= 8

- A. Write a brief note on blood clotting.
- B. Distinguish between the osmoconformers and osmoregulators.
- C. What is co-enzymes? Describe the function of enzyme.
- D. Write a short note on synaptic transmission.

4. Answer any one question 12×1= 12

- A. What is blood? Describe briefly the composition of vertebrate blood. What do you mean Rh-factor? 1+9+2=12
- B. Describe the mechanism of muscle contraction.
- C. What is enzyme kinetic? Describe Michaelis-Menten rate equation.