



## Question Bank For PG Course

### Zoology

#### Paper-3B

### GENETICS AND MOLECULAR BIOLOGY : PGZO-IIIB

#### Question 1

Who proposed the phrase 'central dogma' and when?

#### Question 2

The proofreading of DNA during replication occurs in which direction and activity?

#### Question 3

State the protein component of Telomerase and its function.

#### Question 4

In prokaryotes, how transcription termination occurs through stem-loop structure?

#### Question 5

Name the universal transcription factor that can bind to RNA-Pol I, II & III.

#### Question 6

Name the DNA binding motif present in homeodomain proteins.

#### Question 7

Which sequences are involved in recognizing splicing sites?

#### Question 8

Where the unusual bases like inosine, pseudouridine, dihydrouridine etc. are found?

#### Question 9

Among the sites of ribosome which one is occupied by the initiator tRNA in the translation?

#### Question 10

State the full form of RISE and where it acts?

#### Question 11

Mention the components of ribozyme and give example.

#### Question 12

Where RecA protein is found and in which process it is involved?

### Question 13

'Transcriptome' analysis means .....

### Question 14

In 'replication' the RNA-primer removal and gap filling occur by which enzymes?

### Question 15

Who catalyses the peptidyl bond formation in 'translation'?

### Question 16

In which year Watson-Crick Model of DNA double helix was published?

### Question 17

Who first synthesized the DNA polymers in vitro?

### Question 18

Where do we find theta replication?

### Question 19

Which protein stabilizes replication fork by binding with single stranded DNA?

### Question 20

What is the function of XIST-RNA?

### Question 21

Mention which subunit of prokaryotic transcription factor is responsible for the initiation of the process?

### Question 22

Which RNA polymerase is responsible for transcription of ribosomal RNA?

### Question 23

What is the function of PAP protein?

### Question 24

What is the source of aminoacyl group of aminoacyl-tRNA?

### Question 25

What are the rRNAs of large subunits of eukaryotic ribosomes?

**Question 26**

Name an enzyme responsible for siRNA production.

**Question 27**

Give an example of ribozyme.

**Question 28**

Name a protein which can recognize a holliday junction?

**Question 29**

What is the cause of xerodermapigmentosum?

**Question 30**

In which technique 'random' primer is used?