

**Examinations- Practical:**

**1. Compositional:**

**Q: A- explain with figure the tRNA structure. (5 Marks)**

**B- Count and Describe different types of ribosomes in prokaryotes and Eukaryotes. (5 Marks)Q:**

**Explain the reasons behind the followings (answer only 3): (3 Marks each)**

- The mutation rate of Human Genome is reduces from theoretical one mutation every  $10^6$  to about one mutation every  $10^9$  Nucleotide Replication.
- Replication in Eukaryotes occur in multiple loci while in Prokaryotes are single location? Why?

**2. True or false type of exams:**

**Q: Indicate the True-False statements. Students MUST correct the false statements. (7.5 Marks)**

- The human haploid cell contains about  $3 \times 10^9$  nucleotides. T
- The genome of human being can harbour about 1.5 M genes but actually it has only 25000 genes.
- Short tandem repeats (STR) are repetitive sequences of DNA ranging from 7-9 nucleotides. F (2-6 nt)

**3. Multiple choices: Chose the correct answer and then fill in the gaps(s). (1.5 Marks each)Q:**

**Fill in the Gaps with suitable word(s). (7.5 Marks)**

- A gene  is a complete sequence region of the genome necessary for generating a functional products.
- The process which the DNA of an ancestral cell is transformed to RNA is called by   Transcription  .
- The proteins required for the stability of the separated single stranded of DNA during replication process are called by   SSBP  .
- One of the important processes through which the genes become regulated is the   Methylation  of the Cytosine's.