

**Sardar Bhagwan Singh University Balawala, Dehradun**

**IX Assignment, M. Pharm II semester**

**School of Pharmaceutical Sciences and Technology**

**M. Pharm Pharmacognosy (1<sup>st</sup> year) II Sem**

**Subject- Medicinal Plant Biotech (MPG201-T)**

**Total Marks 30**

**Submission Date 24.05.2020**

Attempt all question

**Section A: multiple choice Questions (1 Mark each)**

Q. No. (1) In terms of DNA and RNA structure, what is a nucleotide?

- a) A nucleotide is a heterocyclic base
- b) A nucleotide is a sugar molecule covalently bonded to a heterocyclic base
- c) A nucleotide is a sugar molecule bonded to phosphate group/s and a heterocyclic base
- d) A nucleotide is a heterocyclic base bonded to phosphate group/s

Q. No. (2) DNA exists in a double-stranded form whereas RNA is mainly a single stranded molecule. What is the likely reason for DNA being double stranded?

- a) RNA strands cannot form base pairs
- b) Double stranded DNA is a more stable structure
- c) DNA cannot exist in the single stranded form
- d) It is easier to replicate double stranded DNA than single stranded RNA

Q. No. (3) How many stop codons are there in the genetic code?

- a) 1      b) 2      c) 3      d) 4

Q. No. (4). Which of the following statements is true of DNA damage?

- a) All DNA damage results in diseases such as cancer
- b) Most DNA damage is repaired by the cell
- c) All DNA damage is caused by physical, chemical or biological agents
- d) Most DNA damage is advantageous to the cell

Q. No. (5). Which of the following statements is true about DNA polymerase?

- a) DNA polymerase can synthesize mRNA in the 3' to 5' direction
- b) DNA polymerase can synthesize DNA in the 5' to 3' direction
- c) DNA polymerase can synthesize mRNA in the 5' to 3' direction
- d) DNA polymerase can synthesize DNA in the 3' to 5' direction

**Section B: True False questions (1 Mark each)**

Q. No. (1) DNA carries the genetic information in the cell (true /false)

Q. No. (2) DNA is capable of self-replication (true /false)

Q. No. (3) Most of the cell's DNA is carried in the nucleus. (true /false)

Q. No. (4) RNA is a polymer of ribonucleotides (true /false)

Q. No. (5) Ribose is the main sugar in RNA (true /false)

**Section C: Short answer questions (5Mark each)**

Q. No. (1) Write a short note on protein synthesis.

Q. No. (2) Write short note on DNA structure

**Section D: Long answer question (10 mark)**

Q. No.(1) write a detail note on application of PTC