

B.Sc. T.Y. (CBCS Pattern) Sem-V
012D - DSE-I - Botany Paper-II : Molecular Biology -II

P. Pages : 2

Time : Three Hours



GUG/W/22/13098

Max. Marks : 50

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- Notes : 1. All questions are compulsory & carry equal marks.
2. Draw well labelled diagrams wherever necessary.

1. a) Genetic code. 5
b) Central Dogma of life. 5

OR

- c) mRNA Template discovery. 2½
d) Wobble phenomenon. 2½
e) Reverse Transcription. 2½
f) Termination codons. 2½
2. a) Prokaryotic Transcription. 5
b) Tryptophan Operon. 5

OR

- c) Polycistronic mRNA. 2½
d) Gene silencing. 2½
e) Transcription factors in eukaryotes. 2½
f) Heat shock protein. 2½
3. a) Eukaryotic mRNA processing. 5
b) Splicing pathway. 5

OR

- c) Split genes. 2½
d) Group I intron. 2½
e) Alternative splicing. 2½
f) Spliceosome complex. 2½

4. a) Prokaryotic Translation. 5
b) Ribosome structure. 5

OR

- c) Charging of tRNA. 2½
d) Elongation. 2½
e) Aminoacyl tRNA synthetase. 2½
f) Elongation of protein synthesis. 2½
5. Write **any ten** questions in one or two lines only (Diagrams are not necessary). 10
- a) UAA
b) Reverse Transcriptase enzyme.
c) Codon.
d) Z-gene.
e) Operon.
f) Transcription.
g) Intron.
h) 5'Cap
i) Promotor of prokaryotes.
j) 70S Ribosome.
k) Peptidyl transferase.
l) Shine-Dalgarnosequence.
