Enrollment No._____

NAVRACHANA UNIVERSITY
a UGC recognized University

School: School of Science
Program/s: BSc Life Science
Year: 3rd **Semester:** 5th
Examination: End Semester Examination
Examination year: Dec 2022

Course Code: LS301 **Course Name:** **Molecular Biology, Endocrinology and Phytohormones**
Date: 02/12/2022 **Total Marks:** 40
Time: 2:30 Pm to 4:30 Pm **Total Pages:2**

Instructions:

- *All questions are compulsory*
- *Draw neat labelled diagram wherever required*
- ** COs=Course Outcome mapping. # BTL=Bloom's Taxonomy Level mapping*

Q. No.	Details	Marks	COs*	BTL#
Q.1	**Do as Directed** 1) Give any two examples of growth inhibitors. 2) Name a few examples of growth promoters. 3) Name the hormone which induces ripening of fruits. 4) What is the role of DNA helicase? 5) State the correct difference between DNA and RNA related to the sugar moiety. 6) Nucleoside is made up of _____. 7) What helps to convert t RNA (uncharged) to t RNA (charged)? 8) State the alternative DNA structures observed using X ray technique.	8	CO1, CO2, CO3, CO4	BT1, BT2, BT3
Q.2	**Answer the following questions in brief (2*6= 12 M)** 1) What is meant by upstream and downstream sequence? 2) What is the role of Shine Dalgarno sequence? 3) Draw a neat labelled diagram of ribosomal assembly during prokaryotic translation. 4) Explain 4 pointers stating significance of post translational modification. 5) Discuss briefly the ways people have found to use the phytohormones. 6) What is the difference between auxin and gibberellin?	12	CO1, CO2, CO3, CO4	BT1, BT2, BT3
Q.3	**Answer the following questions in detail (3*5= 15M)** 1) Distinguish between prokaryotic and eukaryotic transcription. 2) Explain the structure and function of DNA polymerase III. 3) Mention any five physiological effects of auxin.	15	CO2	BT3, BT4
Q.4	**Write a short note (any one)** (5 M) 1) Give a detailed account on DNA as a genetic material, emphasizing their structure. 2) Design an experiment to show the uneven distribution seen in the hormone auxin.	5	CO3, CO4	BT2, BT3, BT4

**********End of Question Paper**********