

Mid Semester Test: August-2016

Advanced Sciences

**GUJARAT NATIONAL LAW UNIVERSITY
GANDHINAGAR**

Course: Advanced Sciences
Semester-III (Batch: 2015-20)

Mid Semester Test: August-2016

Date: 12th August, 2016

Duration: 1½ hours

Max. Marks: 20

Instructions:

- Read the questions properly and write the answers in the given answer book.
- The respective marks for each question are indicated in-line.
- Do not write any thing on the question paper.
- Draw the diagrams only with pencil.
- Indicate correct question numbers in front of the answers.
- No questions or clarifications can be sought during the exam period, answer as it is, giving reason, if any.

Part-A**Marks**

- Q.1 Answer the following questions: (2x0.5=01)
- (a) Who coined the word nanotechnology and define what nanotechnology is.
- (b) What are dendrimers?
- Q.2 Write a note on of the following: (2x2=04)
- (a) Top down approach and synthesis technique used for the approach.
- (b) Carbon based nanostructures
- Q.3 What are carbon nanotubes? Explain its types, structure, mechanical, electrical and thermal properties. (5x1=05)

OR

Explain the classification of nanotechnology based on the dimensions and also explain electron confinement.

Part-B

- Q.4 Answer the following briefly: (2x3=06)
- (a) Distinguish between Bioinformatics and Computational Biology.
- (b) Distinguish between "accession code and identifier".
- (c) Write short notes on Secondary databases.
- Q.5 Explain the different BLAST programs (04)
