

C. ABDUL HAKEEM COLLEGE (AUTONOMOUS),

MELVISHARAM - 632 509.

SEMESTER EXAMINATIONS, APRIL - 2018

B.Sc., ZOOLOGY

SEMESTER VI

U14EZL602 – NANOTECHNOLOGY IN LIFE SCIENCE (ELECTIVE - III)

Time: Three Hours

Maximum: 75 Marks

SECTION - A (10 X 2 = 20 Marks)

Answer **ALL** Questions.

1. Surface area to volume ratio-Define.
2. Mention the concepts of nanotechnology.
3. Nanometer-Define.
4. Mention any two devices developed by using nanotechnology.
5. Molecular nanotechnology-Define.
6. Gold nanoparticles-Define.
7. Multi-Walled Carbon Nanotubes-Define.
8. Comment on the application of TEM in nanotechnology.
9. Nanomedicine-Comment.
10. Mention any two applications of nanotechnology in agriculture.

SECTION - B (5 X 5 = 25 Marks)

Answer **ALL** Questions.

11. a) Make a brief account on the methods of nanoparticles generation.

(Or)

b) Nanotechnology is an interdisciplinary field-briefly discuss.

12. a) Give a brief account on structural nanotechnology.

(Or)

b) Explain Macromolecular level.

13. a) Write short note on the Quantum dots.

(Or)

b) Write a brief note on the applications of nanoparticles in gene delivery.

14. a) Briefly explain about the types of carbon nanotubules.

(Or)

b) Make a note on characterization of nanomaterials.

15. a) Write down the applications of nanotechnology in medicine.

(Or)

b) Discuss briefly the future perspectives of nanotechnology in life science.

SECTION - C (3 X 10 = 30 Marks)

Answer **ANY THREE** Questions.

16. Explain in detail about the top down approach in synthesis of nanomaterial.
17. Write in detail about the Molecular, Macromolecular levels and nanoscales.
18. Make a detailed account on nanotechnology in DNA computing.
19. Give an account on the use of carbon nanotubules.
20. Explain the application of nanotechnology in agriculture.
