

E 2531

(Pages : 2)

Reg. No.....

Name.....

B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, MAY 2016

Second Semester

Core Course—**METHODOLOGY AND PERSPECTIVES OF SCIENCE**

(Common for B.Sc. Bioinformatics, B.Sc. Biotechnology, B.Sc. Electronics and
B.Sc. Computer Maintenance and Electronics)

[2013 Admission onwards]

Time : Three Hours

Maximum Marks : 80

Part A (Short Answer Questions)

Answer all questions.

Each question carries 1 mark.

1. What is virtual testing ?
2. What is the significance of repeatability in scientific experiments ?
3. What are variables ?
4. What is null hypothesis ?
5. Differentiate primary and secondary data.
6. Define patent.
7. What is sensory extension ?
8. What is scientific temper ?
9. What is peer review ?
10. What is empiricism ?

(10 × 1 = 10)

Part B (Brief Answer Questions)

Answer any eight questions.

Each question carries 2 marks.

11. What is data collection ?
12. Explain record-keeping and its significance.
13. Explain IPR.
14. What are factual truths ?

Turn over

15. Give a short note on danger of preconceived ideas.
16. Write a note on significance of ethics in science.
17. Write about scientific theories.
18. Explain corroboration and falsification.
19. Write a short note on Robotics.
20. Differentiate science and pseudoscience.
21. Explain plagiarism and significance of honesty.
22. Write about types of errors.

(8 × 2 = 16)

Part C (Short Essay Type)

*Answer any six questions.
Each question carries 4 marks.*

23. Differentiate deductive and inductive reasoning.
24. Explain structure of scientific paper.
25. Explain Laws of science.
26. Give an account of depositories of scientific information.
27. Explain measures of dispersion.
28. Mention different types of knowledge.
29. Give an account of Electron microscope.
30. Write a short note on vocabulary of science.
31. Write about types of observations.

(6 × 4 = 24)

Part D (Long Essay)

*Answer any two questions.
Each question carries 15 marks.*

32. What is hypothesis ? Explain how a hypothesis can be formulated and tested.
33. Illustrate types of data presentation methods.
34. Write a note on revolutions in science and technology.
35. Explain planning and design of experiments with an example.

(2 × 15 = 30)