

**E 2208**

(Pages : 2)

Reg. No.....

Name.....

**B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, MAY 2015**

**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 : 80 Marks

**Part A (Short Answer Questions)**

*Answer all questions.*

*Each question carries 1 mark.*

1. What is positive control ?
2. Explain Precision.
3. What is sensory extension ?
4. What is hypothesis ?
5. Explain transparency.
6. What is a variable ?
7. Write about plagiarism.
8. What is virtual testing ?
9. Explain null hypothesis.
10. What is corroboration ?

(10 × 1 = 10)

**Part B (Brief Answer Questions)**

*Answer any eight questions.*

*Each question carries 2 marks.*

11. Explain repeatability and replication.
12. Write about patterns and trends.
13. Explain controlled and uncontrolled observation.
14. Differentiate evidence and proofs.
15. Write about record keeping.
16. Give an account on danger of preconceived ideas.

**Turn over**

17. Write about significance of peer review.
18. Write a note on errors.
19. What is scientific temper ?
20. Explain ethics in science.
21. Give an account of documentation of experiments.
22. Explain empiricism.

(8 × 2 =

### **Part C (Short Essay Type)**

*Answer any six questions.*

*Each question carries 4 marks.*

23. Write about Mathematical methods and Scientific methods.
24. Explain basis for scientific laws and factual truths.
25. Write about depositories of scientific information.
26. Write a note on revolutions in Science and Technology.
27. Explain science as a human activity.
28. Write about significance of robotics in scientific experiments.
29. Give an account of vocabulary of Science.
30. Write about necessity of units and dimensions.
31. Explain importance of models and simulations.

(6 × 4 = 24)

### **Part D (Long Essay)**

*Answer any two questions.*

*Each question carries 15 marks.*

32. Describe data acquisition and data presentation.
33. Explain types of knowledge and laws of Science.
34. Explain formulation of hypothesis. Write about significance of verification.
35. Explain design of experiment and making observations.

(2 × 15 = 30)