QP CODE: 23104836

B.Sc DEGREE (CBCS) REGULAR/IMPROVEMENT/REAPPEARANCE EXAMINATIONS, FEBRUARY 2023

First Semester

Core Course - EL1CRT20 - METHODOLOGY OF SCIENCE(2019 ADMISSION ONWARDS)

(Common to B.Sc Electronics and Computer Maintenance Model III, B.Sc Electronics Model III)

2019 Admission Onwards

E9B79D91

Time: 3 Hours

Max. Marks : 80

Part A

Answer any **ten** questions. Each question carries **2** marks.

- 1. What are the scientific contribution of Archimedes in Alexandria ?
- 2. What is the importance of Julian calendar?
- 3. Explain the best known positive contribution of Leonardo da Vinci.
- 4. What is the major finding of Michael Servetus about blood circulation?
- 5. Discuss the contributions of Euler in mathematics.
- 6. How French revolution affects the scientific progress?
- 7. Define pseudo-science.
- 8. Mention some advantages of transistor over vacuum tubes.
- 9. What are the advantages of integrated circuits?
- 10. What is wireless communication?
- 11. Name different types of memories used in a digital computer.
- 12. What is a microprocessor?

 $(10 \times 2 = 20)$

Turn Over

Part B

Answer any **six** questions. Each question carries **5** marks.

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- 13. Explain the contribution of Aristotle to the European origin of science.
- 14. Explain the advantages in Vedic medicine.
- 15. Briefly explain the contributions of Kerala School of Astronomy and Mathematics.
- 16. Why Newton's Principia is described as the greatest work in the history of science?
- 17. Explain Induction and Deduction.
- 18. Explain the disadvantages of vacuum tube.
- 19. What are the simplex, duplex and half duplex modes in communication?
- 20. Briefly discuss the use of electronics in medicine.
- 21. Briefly discuss the role of electronics in navigation.

(6×5=30)

Part C

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

- 22. Explain the findings of Bruno, Copernicus, Galieleo and Kepler in astronomy.
- 23. Explain about the contributions of contemporaries of Newton.
- 24. Explain the working of a Television.
- 25. Explain the principles of optical fibre. What are its advantages over cables?

(2×15=30)