Time: Three hours

Maximum: 75 marks

PART A — $(10 \times 2 = 20 \text{ marks})$

Answer any TEN Questions each in 30 words.

- 1. What is data?
- 2. What is various stages in data science?
- 3. What are the benefits of data science?
- 4. What is modeling process?
- 5. Define data analysis.
- 6. What is machine learning?
- 7. Define frame work.
- 8. What is map reduce?
- 9. Define: BASE.
- 10. What is Hadoop.
- 11. What is research.
- 12. What is automation in data science?

PART B — $(5 \times 5 = 25 \text{ marks})$

Answer any FIVE Questions each in 200 words.

- 13. Explain the goals of data science.
- 14. How to retrieve the data in data science process.
- 15. Why we need the machine learning in data science.
- 16. What are the applications of machine learning in data science?
- 17. Explain Hadoop concepts.
- 18. Discuss the data retrieval with examples.
- 19. Explain exploration and preparation of disease profiling with examples.

PART C —
$$(3 \times 10 = 30 \text{ marks})$$

Answer any THREE Questions each in 500 words.

- 20. Briefly Explain the various concepts of data science.
- 21. Discuss the data science process overview.
- 22. Briefly Explain supervised and unsupervised machine learning.

- 23. Discuss the following:
 - (a) ACID
 - (b) CAP
 - (c) BASE
- 24. Briefly Explain the case study of data science.