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Name......Reg. No....

FOURTH SEMESTER B.Ed. DEGREE EXAMINATION, APRIL 2024

B.Ed.

EDU 13.11—PROFESSIONALIZING NATURAL SCIENCE EDUCATION

(2017 Scheme)

Time: Two Hours

Maximum: 40 Marks

Part A

Answer all questions.

Each question carries 1 mark.

- 1. Why is teaching considered a profession?
- 2. List soft skills that are important for a science teacher.
- 3. Mention the qualities that are essential for a good science teacher.
- 4. Write the names of any two prominent research journals in the field of Science Education?
- 5. What are the responsibilities of SCERT in relation to the professional development of teachers?
- 6. Clarify the concept of Techno-pedagogy.

 $(6 \times 1 = 6 \text{ marks})$

Part B

Answer all questions.

Each question carries 2 marks.

- 7. What are the common characteristics of scientifically gifted children?
- 8. Mention the advantages of using blogs for online publishing compared to traditional print media.
- Describe the types of resources provided by INFLIBNET to support the professional development of science teachers.
- 10. What are the considerations kept in mind when preparing a module for e-content?

 $(4 \times 2 = 8 \text{ marks})$

Turn over

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Part C

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

- 11. Describe the teacher competencies identified by NCTE to make teachers professionally competent.
- 12. How do ICT tools contribute to the understanding of complex biological concepts? Provide specific examples
- 13. What are the components of creativity, and how do they contribute to the creative process?
- 14. Briefly explain the features and benefits of using free software in science education. Give examples of free software in science.
- 15. How do webinars revolutionise knowledge sharing and interactive communication in science education?
- 16. Suggest strategies to utilise social media platforms to teach students science.

 $(4 \times 4 = 16 \text{ marks})$

Part D

Answer any **one** question.

The question carries 10 marks.

- 17. Discuss how the TPACK framework integrates technology, pedagogy, and content knowledge for effective teaching in science.
- 18. What is Learning Management System (LMS), and how does it facilitate online and blended learning in science?

 $(1 \times 10 = 10 \text{ marks})$

