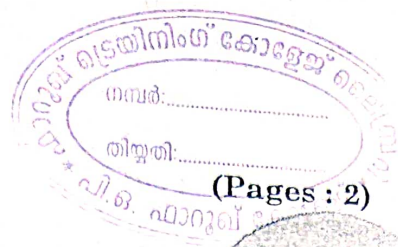


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Name.....

Reg. No.....

FIRST SEMESTER B.Ed. DEGREE EXAMINATION, NOVEMBER 2021

B.Ed.

EDU 05.11—THEORETICAL BASES OF TEACHING NATURAL SCIENCE

(2017 Scheme)

Time : Three Hours

Maximum : 80 Marks

Part A

Answer all questions.

Each question carries 2 marks.

1. Distinguish between *Instructional* and *Nurturant* Effects of a Model.
2. What is *Heuristic Method* ? Who proposed it?
3. List out the *Phases of Advance Organizer Model*.
4. What is the meaning of '*Critical Pedagogy*' ? Who proposed it ?
5. List any four *objectives* of KCF (2007).
6. Distinguish between *Spiral and Concentric Curriculum*.
7. Mention any *two* path- breaking *Discoveries* in the field of *Biology*.
8. What is *Hidden Curriculum* ? Give one example.
9. What is *Link Practice* ? What is its Significance ?
10. What is *Simulation* ? Give one example.

(10 × 2 = 20 marks)

Part B

Answer any ten questions.

Each question carries 4 marks

11. Briefly explain the various *Families of Teaching Models*.
12. What are *Collaborative Learning Techniques* ? How will you organize a *Jig-Saw* session in your classroom?

Turn over



13. What is *Issue Based learning* ? Explain the various Issues that can be discussed under *Issue Based Pedagogy*.
14. With a suitable *example* from your subject, differentiate between *Inductive* and *Deductive* approaches in learning.
15. "*Science is both a Process and a Product*—Substantiate the statement.
16. What are *Science Process Skills* ? Briefly explain the *strategies* to develop the process skills among the learners.
17. *Critically evaluate* the existing *Biology Curriculum* at *Secondary level*.
18. Briefly explain any *four Principles* of *Curriculum* construction.
19. Briefly explain the major role of *BSCS* in the reformation of *Science Curriculum*.
20. Which are the major steps to conduct a *Lecture Method* ? Mention its *Merits* and *Demerits*.
21. What are *Misconceptions* in Science ? What is the *role* of a Science teacher to remove these *Misconceptions* ?
22. Distinguish between *Incidental* and *Systematic Correlation* with suitable examples from *Biology*.

(10 × 4 = 40 marks)

### Part C

Answer any two questions.

Each question carries 10 marks.

23. What are *Projects* ? Explain the various *steps* to carry out a *Project* in *Biology*. Mention the *role* of a *Teacher* in *Project*.
24. What is *Inquiry Training Model* ? Briefly explain the various *elements* of this *Model*. Discuss the *Merits* and *Demerits*.
25. Briefly explain the *Role* of *Nuffield Science Teaching projects* in the progressive reformation of *Science Education* as well as teaching *Biology*.

(2 × 10 = 20 marks)