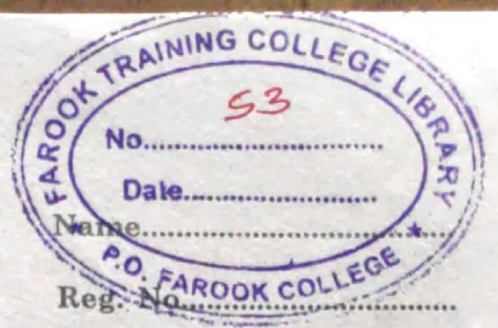


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FIRST SEMESTER B.Ed. DEGREE EXAMINATION, DECEMBER 2016

EDU 05.12—THEORETICAL BASES OF TEACHING PHYSICAL SCIENCE

(2015 Admissions)

Time : Three Hours

Maximum : 80 Marks

Part A

Answer all questions.

Each question carries 2 marks each.

1. Mention any *two* recommendations of NCF (2005) with respect to science curriculum.
2. Using a definition bring out the process and product aspects of science.
3. Mention a topic that may be taught through problem solving method. Write the problem you may frame for this topic.
4. Mention any *four* features of collaborative learning.
5. List the various steps involved in project method.
6. What are four basic stages of curriculum development ?
7. Mention any *two* areas of physical science where type study can be employed.
8. List any *two* supplementary readers suitable for second school students. Mention their publishers.
9. Mention the first aid for :
 - (a) Acid burn.
 - (b) Unknown Poisson.
10. Write example from physical science for Analysis and synthesis.

(10 × 2 = 20 marks)

Part B

Answer any ten questions.

Each question carries 4 marks.

11. Explain any *four* functions of science.
12. List the eight issues on which Kerala curriculum is based.
13. Write a short note on First Aid Kit. List its contents.
14. Explain concept map with an example from physical science.
15. What are the instructional and Nurturant effects of concept attainment model.
16. Describe any *four* patterns by which you can impliment supervised study in science classroom.

Turn over

17. Explain the different types of registers maintained in a science laboratory.
18. Write short note with example :
- (a) Deduction. (b) Analogy.
19. What are the advantages of pupil's workbook ?
20. How can a science teacher secure transfer of training of scientific method.
21. Explain any *four* factors which affect the curriculum organisation.
22. Describe any *four* advantages of cluster meeting in state schools.

(10 × 4 = 40 marks)

Part C

*Answer any two questions.
Each question carries 10 marks each.*

23. Differentiate between curriculum and syllabus. Briefly explain the important principles to be considered while constructing science curriculum.
24. State and explain Mill's canons of induction with examples from physical science.
25. Explain the significance of heurism in teaching of science. Mention the role of the teacher and pupil ; merit and limitations of the method.

(2 × 10 = 20 marks)