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**FIRST SEMESTER B.Ed. DEGREE EXAMINATION, DECEMBER 2015**

**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.*

1. Mention any *four* values of science.
2. List any four emerging interdisciplinary subjects in the field of science.
3. Mention any *four* characteristics of learning in a constructivist classroom.
4. What is the role of teacher and student in guided discovery learning.
5. What are the disadvantages of individual laboratory method ?
6. What are the various stages of Brainstorming technique ?
7. Which are the families of models of teaching ?
8. What are the advantages of improvisations ?
9. Mention any *four* different sections of science library.
10. Distinguish between observation and experiment.

(10 × 2 = 20 marks)

**Part B**

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

11. Bring out the importance of science as a compulsory subject of school curriculum.
12. Explain the criteria of a good demonstration. What are the merits of the method ?
13. Explain any two different graphic organizers with example.
14. What is scaffolding ? Explain with any two illustrations from science classroom.
15. Cite any two common misconception of pupils in science and explain its remedial measures.
16. Differentiate between incident and systematic correlation with examples.
17. Briefly explain any *one* improvised aid and its use in the classroom.

Turn over



18. List any *four* accidents that may happen in a science laboratory and their respective first aid.
19. Explain hidden curriculum with examples from science.
20. Explain concentric approach to curriculum organisation with example.
21. State various stages in the syntax of concept attainment model.
22. What is hypothesis ? What are the criteria of a good hypothesis ?

(10 × 4 = 40 marks)

### Part C

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

23. Explain the salient features of KCF (2007) with special reference to science education.
24. Explain Vogel's criteria of evaluation of science text book citing two items under each aspect.
25. Discuss the various steps involved in scientific method citing an example from physical science.

(2 × 10 = 20 marks)