

2014

B. Ed.

1st Semester Examination

PEDAGOGY OF PHYSICAL SCIENCE

PAPER—C-106

Full Marks : 50

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

1. Answer any *five* questions of the following : 5×2
- (a) Mention 2 ways in which safety in the physical science laboratory may be maintained.
 - (b) Give 2 examples of the use of compute simulation in teaching physical science.
 - (c) Mention any 2 features of the Learner Centric Approach in teaching Physical Science.
 - (d) Write 2 differences between inductive and deductive methods of teaching science.

(Turn Over)

- (e) Mention any 2 utilitarian values of teaching physical science.
- (f) What is meant by the heuristic method of teaching physical science ?
- (g) Mention any 2 demerits of teaching physical science by the project method.
- (h) Mention any 2 ways in which physical science may be popularized in secondary school.

2. Answer any six questions of the following : 6×5

- (a) Explain the outlook of "science as a process".
- (b) Discuss the utilitarian values of teaching physical science in the secondary level.
- (c) List the differences between traditional and constructivist approaches of teaching physical science.
- (d) What are the merits and demerits of teaching science by the Lecture method ?
- (e) Instruction show how learner centric approaches in teaching physical science may be carried out.
- (f) Outline the steps for organising remedial teaching in physical science.

- (g) Mention the recommendations of NCF 2005 regarding science education.
- (h) Select a topic of physical science in secondary school, and explain how it may be taught by the constructivist method.
- (i) What is meant by 'scientific temper'? How can scientific temper be developed among secondary school children?

3. Select any *one* unit from (A), (B), (C) or (D) and do pedagogical analysis as per following instruction:

- (a) Divide the contents of the selected unit into suitable sub unit(s). 2
- (b) Select a sub-unit and write the appropriate instructional objectives to be selected for the sub-unit. 4
- (c) Select the appropriate teaching strategies for the sub-unit according to the following instruction :
 - (i) Write the name of the method applied. 1
 - (ii) Mention the teaching aids required. 1

(iii) Write two probing questions related to the Sub-unit and provide appropriate answers for them. 2

(A) Reflection of light (IX—X)

(B) Lever (IX—X)

(C) Physical change and chemical change
(VII—VIII)

(D) Oxidation and Reduction (VII—VIII)
