

Reg. No. :

Name :

First Semester B.Ed. Degree Examination, August 2021

EDU 04.8 : THEORETICAL BASE OF PHYSICAL SCIENCE EDUCATION

(2019 Admission Onwards)

Time : 2 Hours

Max. Marks : 50

PART – A

I. Answer **all** questions by selecting the most appropriate **one** from the options given.

1. Which maxim of teaching is not used in the inductive approach?

- (a) known to unknown (b) particular to general
(c) concrete to abstract (d) rational to empirical

2. Father of Indian Missile Technology is

- (a) Vikram Sarabhai (b) A.P.J. Abdul Kalam
(c) Chandrasekhar (d) H.J. Bhabha

3. Which among the following is not an integrated process skill?

- (a) Interpreting (b) Hypothesizing
(c) Experimenting (d) Predicting

4. The ultimate focus of scientific method is on
(a) Formulation of Hypothesis (b) Formulation of a theory
(c) Experimentation (d) Observation
5. Science provides opportunity to discriminate right and wrong. This is due to the value of
(a) moral (b) intellectual
(c) utilitarian (d) social

(5 × 1 = 5 Marks)

PART – B

- II. Answer **all** questions in **one** word or **one** phrase.
6. Write any two specifications of the objective 'application'.
7. Define scientific literacy.
8. Mention two values of teaching physical science.
9. Define objective based instruction.
10. Write any two contributions of C.V. Raman.

(5 × 1 = 5 Marks)

PART – C

- III. Answer **all** questions, in not exceeding one paragraph.
11. Write any four components of scientific temper.
12. What is brainstorming?
13. What are the basic steps of scientific method?
14. Explain the behaviourist approach of science teaching.
15. Explain the concept of virtual learning environment.

(5 × 2 = 10 Marks)

PART – D

- IV. Answer **any four** questions in not exceeding one and half pages. Each question carries **5** marks.
16. Explain the phases of teaching.
 17. Differentiate between inductive and deductive approaches.
 18. Explain the role of science for sustainable development.
 19. Explain the multiple roles of a science teacher.
 20. What are the phases of project method of learning?
 21. Explain the evolution of science as a subject.

(4 × 5 = 20 Marks)

PART - E

- V. Answer any **one** question in not exceeding **three** pages.
22. Science is both a process and product. Substantiate.
 23. Describe Mill's Canons of induction with supporting examples.

(1 × 10 = 10 Marks)
