SEMESTER - II

CPS 2b – Part II - PEDAGOGY OF PHYSICAL SCIENCE

Credits: 4 **Internal: 40 marks**

Hours/Week: Theory-4hrs & Practical- 4hrs **External: 60 marks**

Total: 100 marks

Course Learning Outcomes:

At the end of the course, Student-teachers will be able to

- organize the co-scholastic activities in Physical Science;
- implement the process of evaluation in Physical Science;
- recognize the significance of planning and teaching Physical Science;
- integrate the picture of an ideal Physical Science teacher;
- point out the importance of classroom climate and classroom management;
- review the organization of the school plant;
- identify and analyze the diverse needs of learners in Physical Science;
- prepare teaching and learning materials in Physical Science;
- score the students through Continuous and Comprehensive Evaluation and analyze the results; and
- compile question bank in Physical Science to aid student performance.

Unit I: Co-scholastic Activities

Definition, Need and Importance of co-scholastic activities- Criteria for the selection of Co-scholastic activities in Physical Science- Science Club- Science Exhibition- Science Fairs- Field Trips and Excursions- Organization of Co-scholastic activities related to Physical Science.

Unit II: Evaluation in Physical Science

Concept of Evaluation- Purpose of Evaluation- Continuous and Comprehensive Evaluation- Formative and Summative Evaluation- Achievement tests- Steps in construction- Preparation of Blue print- Preparation of an Achievement Tests in Physical Science-Item Analysis- Administering

the test- Various types of Test items- Essay type - Short answer type - Objective type: Completion type - Matching type - Multiple Choice- Merits and limitations of Essay, Short answer and Objective type- Diagnostic Tests- Steps in constructing a Diagnostic test- Teacher made and Standardized tests

Unit III: Planning and Teaching

Significance of planning for effective teaching- Year Plan: importance and mode of planning- Unit Plan: definition – characteristics - steps in unit planning - importance of unit planning- Lesson Plan: definition - criteria of a good lesson plan - steps involved in lesson planning (Herbartian Steps) - advantages of lesson planning.

Unit IV: Teacher Professionalism and Teacher Commitment

Committed teachers - Passionate teachers: Dimensions of passion associated with teacher commitment and engagement: Teacher commitment as a Passion-teacher – Teacher commitment as a unit of time outside the contact hours with students - Teacher commitment as focus on the individual needs of students. Teacher commitment as responsibility to impart knowledge, attitudes, values and beliefs- Teacher Commitment as maintaining ‘ Professional knowledge’ - Teacher commitment as engagement with school and community- Importance of teacher commitment for quality enhancement – Ways and means of enhancing teacher commitment for teaching Professionalism. Academic and Professional Qualifications for a Science teacher- Qualities of a good Science Teacher- Need for Pre-service and In-service training Programmes - Professional development of Science Teachers.

Unit V: Classroom Climate and Classroom Management

Significance of conducive Classroom Climate - Types of Classroom Climate: Teacher-dominated, Laissez-faire and Democratic pattern- Classroom Management: meaning, significance of effective Classroom Management - Management of human and material resources.

Unit VI: School Plant

Norms in setting up a School - Maintanence of the School plant - Scholastic and Co-scholastic requirements- School shapes - Ideal shape of a School.

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