

ALLAMA IQBAL OPEN UNIVERSITY, ISLAMABAD
(Department of Science Education)

WARNING

1. **PLAGIARISM OR HIRING OF GHOST WRITER(S) FOR SOLVING THE ASSIGNMENT(S) WILL DEBAR THE STUDENT FROM AWARD OF DEGREE/CERTIFICATE, IF FOUND AT ANY STAGE.**
2. **SUBMITTING ASSIGNMENTS BORROWED OR STOLEN FROM OTHER(S) AS ONE'S OWN WILL BE PENALIZED AS DEFINED IN "AIU PLAGIARISM POLICY".**

Course: Professional Development of Science Teachers (6777)

Level: Ph. D Science Education

Semester: Autumn, 2013

Total Marks: 100

Pass Marks: 50

NOTE:

1. All questions are compulsory and carry equal marks.
2. Assignments should be handwritten.
3. Copying from reference materials is strictly prohibited. Read the reference/allied materials taking note of important points relevant to the question then compose the answer in your own words with proper citations and references wherever needed.
4. Answer of each question should be at least 1500 words.

ASSIGNMENT No. 1

(Units: 1–4)

- Q. 1 Write a critical essay on Need and Role of Professional Development in Science Education reform with special reference to Pakistan. Support your argument with findings from research. **(20)**
- Q. 2 How the knowledge and beliefs about nature of science, learner and learning can help in supporting effective professional development of science teachers? **(20)**
- Q. 3 Discuss the role of professional development in building professional communities among teachers? Also suggest what steps should be taken to develop professional communities of teachers in Pakistan. **(20)**
- Q. 4 Describe the framework for designing professional development of science teachers. **(20)**
- Q. 5 Discuss the importance of curriculum, instruction, assessment practices as contextual factors for planning professional development. **(20)**

ASSIGNMENT No. 2

(Units: 5–9)

Total Marks: 100

Pass Marks: 50

- Q. 1 “Equity could be a serious issue in designing professional development programs for science teachers”, debate keeping in view the situation in Pakistan. **(20)**
- Q. 2 What are the various models of professional development? Which model is most suitable for professional development of science teachers in Pakistan and why? **(20)**
- Q. 3 Explain the terms mentoring and reflection. What are the key elements of mentoring? Also discuss the implications of using mentoring approach for professional development of science teachers in Pakistan. **(20)**
- Q. 4 Explain the salient features of case study method of professional development. Also discuss the possible issues surrounding its use for professional development of science teachers of secondary level. **(20)**
- Q. 5 Conduct a review of literature, reports and teacher training programs of various NGOs in Pakistan and write a report on their role in professional development of science teachers in Pakistan. **(20)**

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