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 "AIOU PLAGIARISM POLICY".

Course: Assessment and Evaluation in Science (6774)   **Semester: Autumn, 2013**
Level: M. Phil   **Total Marks: 100**
                                                           Pass Marks: 50

1. Response to each question should be realistic.
2. Write answers in your own words after reading the textbook/materials.
3. Avoid irrelevant information, reproduction from any text and give a critical analysis of the questions asked for.
4. Write your assignment in legible handwriting.
5. Give source in case of quoting any material. (Proper references inside the assignment and in bibliography)
6. Submit the assignment on or before specified date.
7. Late assignment will not be accepted in any case.

ASSIGNMENT No. 1
(Units: 1–4)

Q. 1 What is ongoing assessment? Explain the key features of ongoing assessment. Give examples to assess students understanding in Sciences. **(10)**

Q. 2 For any objectives, there is usually a choice of assessment. Explain such objectives and choice of assessments with examples. (**10**)

Q. 3 How affective and cognitive behaviour or learning can be assess? Develop assessment tools to measure these learning objectives. **(10)**

Q. 4 How quality assessments can be designed that reflect excellence in Science curriculum and instruction? Discuss in detail. (**10**)

Q. 5 Portfolios to be a useful assessment tools. How you will develop this tool? Explain in detail. (**10**)

Q. 6 What are scoring Rubrics? How these rubrics can developed? Explain the criteria for the development of such rubrics. (**10**)

Q. 7   Explain the processes of assessment through observation. Describe and evaluate the Characteristics, strengths and limitation of this type of assessment.   (**10**)

Q. 8   What is SOLO Taxonomy? Why use SOLO? Explain five stages of understanding of solo taxonomy.   (**10**)

Q. 9   What you mean by competency base of assessment? Why this type of assessment is useful in Science courses?   (**10**)

Q. 10 Explain the fundamental principles of effective assessment.   (**10**)

ASSIGNMENT No. 2
(Units: 5–9)

Total Marks: 100   **Pass Marks: 50**

Q. 1   How do you conceptualize objectives of assessment and evaluation in Science Education? Give a critical account with the existing position in Pakistan.   (**10**)

Q. 2   What is the procedure used for portfolio assessment? Design an activity for portfolio assessment of student work.   (**10**)

Q. 3   What kind of procedures are adopted for reporting results of the students and how these are communicated to the community? Discuss in detail.   (**10**)

Q. 4   When letter grades are used on report cards at school level, what information is furnished to the parents by these grades? Please discuss.   (**10**)

Q. 5   What incentives, other than grades, can teachers use to motivate students to enhance participation in class activities? Explain it, at least in 1200 words.   (**10**)

Q. 6   Explain the relative and absolute approaches to the assignment of marks. Compare the following two types of data, explain.   (**10**)

Table No. 1

Mark/Grade	% points needed	Meanings
A	91 – 100	Excellent
B	81 – 90	Very Good
C	71 – 80	Average or Good
D	61 – 70	Below average
F	60 and below	Failing

Table No. 2

Marks	% of Students	Receiving Marks
A	7	
B	24	
C	38	
D	24	
F	7	

Q. 7 Explain types of computer application in Sciences assessment. **(10)**

Q. 8 Explain standard based assessment. How do you implement standard based assessment in science courses? Formulate your own criteria for this type of assessment. **(10)**

Q. 9 What is construct based assessment? Explain the criteria for construct based assessment. Designed tool for this type of assessment. **(10)**

Q. 10 **Activities** **(10)**
   1. Write in two lines the meanings of the following:

   Performance based assessment _____

   Standard based assessment _____

   Competency based assessment _____

   Computer based assessment _____

   Curriculum based assessment _____

   Construct based assessment _____

   2. Making use of any curriculum documents to which you have access to: list some examples in the following table.

Cognitive Domain	**Affective Domain**	**Psychomotor Domain**

3. Making Use of document which you have access to, list examples of educational assessment which are representative of the different levels of Bloom's Taxonomy in the cognitive domain.

    Taxonomy Classification   **Examples assessment**
    1. Knowledge
    2. Comprehension
    3. Application
    4. Analysis
    5. Synthesis
    6. Evaluation

4. Consider where performance tests might fit into your assessment strategy. In particular, write their use for the application of skills in 'real life' context.
    _____
    _____

5. Write down the six uses of computer in assessment of science education.
    _____   _____
    _____   _____
    _____   _____

6. In your curriculum area, take a uni-structural question and develop it into a
    ➢   Multi-structural
    ➢   Relational and
    ➢   Extended abstract question

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