

**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: Teaching of Mathematics (6515)  
Level: MA (Education)

Semester: Autumn, 2012  
Total Marks: 100  
Pass Marks: 40

**ASSIGNMENT No. 1**  
(Units: 1–4)

*Note: All questions are compulsory and carry equal marks. Examples copied from the course books will carry no marks.*

- Q. 1 Discuss the need of selecting aims and objectives for teaching mathematics. Also differentiate among them. Discuss the objectives of Teaching Mathematics at secondary level. (20)
- Q. 2 “For teaching of mathematics in an effective manner use of teaching methods other than traditional lecture is must”, discuss. (20)
- Q. 3 Why we use audio visual aids? What audio visual aids are used for teaching mathematics at secondary level? How we can use local resources for preparing A.V. aids? (20)
- Q. 4 Explain the need and importance of lesson plan. Prepare a lesson plan for teaching the topic, “drawing of the inverse tangents on a circle”. (20)
- Q. 5 Critically analyze the present practice of classroom assessment and board examination in mathematics education at secondary level in Pakistan. Also suggest some measures to make teachers tests and Board examination more effective. (20)

## ASSIGNMENT No. 2

(Unit: 5–9)

**Total Marks: 100**

**Pass Marks: 40**

*Note: All questions are compulsory and carry equal marks.*

Q. 1 State and Prove De Morgan's laws by using vein diagrams. (20)

Q. 2 a) Why logarithm is used in mathematics? Explain three laws of logarithm with examples. (10)

b) Evaluate the following with the help of logarithm:

i) 
$$\frac{(0.003634)^3}{(57.05)^{2/3}(0.0860)^4}$$
 (05)

ii) 
$$\sqrt{9345/(45.98)(45.64)^3}$$
 (05)

Q. 3 Find out L.C.M and H.C.F of the following: (10+10)

$6x^3 + 7x^2 - 9x + 2$  ,  $8x^4 + 6x^3 - 15x^2 + 9x - 2$

Q. 4 a) Solve the right angled triangle ABC in which a = 24.6cm b = 10.5cm (10)

b) Prove that  $1 = 2 \cos \sec - \tan \cot$  (10)

Q. 5 a) Construct a triangle ABC with measure of sides 5.5cm, 5cm and 4cm if possible. Also draw angle bisectors of A, B, and C. (10)

b) A ladder makes an angle of 60 degree with the floor and reaches a height of 20dm on the wall. Find the length of ladder. (10)

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