

**CERTIFICATE IN ELEMENTARY
TEACHER EDUCATION (CETE)**

**Term-End Examination
December, 2012**

MESE-013 : TEACHING OF MATHEMATICS

Time : 3 hours

Maximum Weightage : 70%

Note : All questions are compulsory. All question carry equal weightage. Answer the question No. 1 and 2 in 600 words each.

1. 'Mathematics is an important component of school education'. Justify the statement by giving social and mathematical aspects values.

OR

Explain the following techniques in teaching Mathematics.

- (a) Drill and practice
(b) Assignment and homework
2. Write desirable characteristics of a good instructional programme in Mathematics.

OR

Explain test technique of evaluation in mathematics including unit test.

3. Answer *any four* of the following :

- (a) A straight iron rod leaning against a wall makes an angle of 60° with the ground at a distance of 15 m from the wall. Find the length of the rod.
- (b) Prove that $\sqrt{2}$ is irrational.
- (c) A car was purchased for Rs. 75,000 at a loss of 10%. Had it been sold for Rs. 90,000. What would have been profit percent ?
- (d) A sum of Rs. 10,000 amounts to Rs. 13,310 in 3 years. Find rate of interest.
- (e) By selling an article for Rs. 6,000 a person loses 5 percent. Find the cost price of the article.
- (f) Find the mean of the following :

Marks	0-10	10-20	20-30	30-40	40-50	50-60
Number of students	15	25	40	30	20	10

- (g) A person sells his motorcycle through a broker in Rs. 25,000. If the brokerage is 2 percent, find the net selling price of the seller and the brokerage amount for the brokerage.
- (h) A rectangular piece of paper is 24 cms long and 12 cms wide. A cylinder is formed by rolling the paper along its length. Find the volume of the cylinder.

4. Answer the following question in about 600 words :

Explain with practical examples, how you introduced a concept, for example multiplication, fraction, percentage etc. to your students, using different materials.
