

2014

B. Ed.

1st Semester Examination

PEDAGOGY OF MATHEMATICS

PAPER—C-106

Full Marks : 50

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

1. Answer any *five* of the following questions : 5×2

- (a) Give 2 reasons why "Mathematics is a mirror of civilization".
- (b) Write two limitations of discovery methods in mathematics teaching learning.
- (c) Write two demerits of using calculators in mathematics learning.
- (d) What do you mean by visual spatial skill in mathematics learning?

(Turn Over)

- (e) Write any two objectives for teaching 'trigonometry' in class X.
- (f) Mention the different components of mathematics in the Secondary school.
- (g) Write two objectives in the affective domain for teaching mathematics in the secondary school.
- (h) Give examples of 2 different types of multiple choice questions in mathematics.

2. Answer any six of the following questions : 6×5

- (a) Illustrate, with an example, how you can be use the computer as an aid in mathematics teaching learning ?
- (b) Write a role on the scope and functions of mathematics.
- (c) Discuss the role of the teacher of constructivist approach to mathematics teaching learning.
- (d) Outline with a suitable example, the problem solving method of teaching at the secondary level.
- (e) Why do you think that mathematics should be taught in school ?
- (f) Discuss the need to teach algebra in the secondary school.

- (g) Explain, with examples, the implications for teaching mathematics to children at the concrete operations stage.
- (h) List the different ways in which mathematics is related to other subjects in the secondary school curriculum.
- (i) Explain why reinforcement is an essential part of mathematics concept attainment.

3. Select any topic from (a) and (b) and do pedagogical analysis as per following instruction :

- (i) Write at least three statements questions to check the previous knowledge of the students of the topic.
- (ii) Formulate instructional objectives in behavioural terms and depict them in a taxonomic table.
- (iii) Write two probing questions with answers :
 - (a) Ratio for class six;
 - (b) Properties of 'Parallelogram' for class seven.