Mid-West University

Examinations Management Office

Surkhet, Nepal

End Semester Examination-2081

Level: M.Ed. / I Semester

Sub: Foundations of Mathematics Education (MATH 513)

Roll No: .....

Group 'A' **10 × 1 =10**

Tick (✓) the best answers.

1. According to ... mathematical knowledge is improvable.
   a. logicism b. formalism
   c. fallibilism d. intuitionism

2. Which one of the following views accepts that mathematical knowledge is the product of social practice?
   a. Dualistic absolutism b. Multiplicity absolutism
   c. Relativistic absolutism d. Relativistic fallibilism

3. According to constructivism mathematical knowledge is ...
   a. created b. out there
   c. discovered d. all of the above

4. Mastery of skills can be achieved through ...
   a. observing b. listing
   c. Practice d. memorizing

5. "A quadrilateral with four right angles is called a rectangle". According to Gagne, rectangle is a...
   a. fact b. concept
   c. skill d. principle

6. How many types of learning has Gagne referred to?
   a. 5 b. 6
   c. 7 d. 8

7. In which stage of does George Polya, a problem solver think about the different strategies of problem solving?
   a. Understanding problem b. Thinking of a plan
   c. Carrying out plan d. Looking back

8. Set of tasks that student can do with help of more knowledgeable others minus set of tasks that can do himself/herself is known as
   a. Zone of proximal development
   b. Zone of actual development
   c. Central zone of development
   d. Zone of problem

9. According to Skemp's theory, which one of the followings is not the factor affecting in learning mathematics?
   a. Social factor b. Schema
   c. Emotion d. Concept formation

10. According to Bruner, which one of the followings is the first phase of learning?
    a. Symbolic b. Enactive
    c. Iconic d. Acquiring mode

Mid-West University

Examinations Management Office

Surkhet, Nepal

End Semester Examination-2081

Level: M.Ed. / I Semester FM: 60

Time: 3.00 hrs PM: 30

Sub: Foundations of Math Education (MATH 513)

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

Attempt All the Questions:

Group "B" **6×5 = 30**

1. How do you differentiate fallibilist philosophy from absolutist philosophy in Mathematics?

2. Write your short reflection on Piaget's theory of learning and mention its five implications in teaching learning mathematics in basic level.

3. Introduce briefly the individualized instructional model. Give any five practical suggestions to implement it Nepali classrooms consisting more than fifty students.

Or

Elaborate the stages of expository model to make it effective in teaching mathematics.

4. Compare and contrast between media and technology with suitable examples.

5. Write a short note on spiritual, moral, social, and cultural issues concerning mathematics education.

6. Describe briefly the critical mathematics education.

Or

Describe the challenges of using multimedia and internet in teaching and learning mathematics in school level.

Group "C" **2×10 = 20**

7. Write your critical reflection on the Skemp's theory of learning. Write its implication on teaching mathematics at basic level in Nepali classroom.

8. Select any one topic from grade Ten mathematics suitable for the problem solving strategy. Write teaching learning activities to teach the selected topic using this strategy.

Or

Illustrate the different foundations of Mathematics education.

THE END