MEDC34

**N.V.K.S.D. COLLEGE OF EDUCATION, ATTOOR**

**(AUTONOMOUS)**

**M.Ed. Degree Third Semester Examination, December 2022**

**(For the candidates admitted during the academic year 2021-2022)**

**Specialisation based on Discipline: ADVANCED METHODOLOGY IN MATHEMATICS EDUCATION**

**Course code:MED3SD002**

**Time: 3 Hours Maximum Marks: 70**

**SECTION A (10 x 1 = 10 marks)**

**Answer ALL the questions by selecting the appropriate answers.**

1. The highest learning according to Gagne’s hierarchy of learning is

a) Signal learning b) Concept learning

c) Rule learning d) Problem solving

1. The measure which divides a distribution in ten equal parts is known as

a) Quartile b) Decile c) Mode d) Median

1. An example for M- learning is

a) Computer b) MP3 c) Mobile d) All the above

1. A search engine is

a) Internet b) e-mail c) Google d) Podcast

1. The learning difficulties of learners can be identified by using

a) Achievement test b) Diagnostic test

c) Prognostic test d) Performance test

1. The appropriate method for developing creative thinking of learners is

a) Lecturing b) Brainstorming

c) Cooperative learning d) Participatory learning

1. The software that can be used for Mathematics teaching is

a) Geogebra b) SPSS c) Duolingo d) VEDAMCO

1. A self contained instructional material is known as

a) Capsule b) Frame c) Module d) Programme

1. An instructional method in which students work in small groups to accomplish a common learning goal with the teacher is

a) Discussion b) Seminar

c) Cooperative learning d) Collaborative learning

1. The values for teachers that is designed to protect the rights of the students is

a) Professional ethics b) Morale

c) Right to protection d) Accountability

**SECTION B (5 x 3 = 15 marks)**

**Answer all the FIVE questions in about 100 words each.**

1. Give the features of teacher-centred methods.
2. Write any two factors influencing Mathematics education.
3. Analyse the scope of Mathematics.
4. With special reference to the developments in the 19th and 20th century, how do you bring the history of mathematics?
5. Give an outline of participatory learning technique in teaching Mathematics.

**SECTION C (5 x 5 = 25 marks)**

**Answer any FIVE questions in about 200 words each.**

1. Highlight the significance of blogging in Mathematics learning.
2. Design an outline of web based lesson in teaching Mathematics.
3. Why should children learn Geometry? Justify your answer with examples.
4. Evaluate the traditional and modern methods of teaching Mathematics at secondary schools.
5. Illustrate a design for programmed learning instructional material in Mathematics.
6. What is TPCK? Explain with suitable examples for Mathematics teaching.
7. How will you integrate technology in your classroom teaching?

**SECTION D (2 x 10 = 20 marks)**

**Answer BOTH the questions in about 500 words each.**

1. a) Elaborate the philosophical and psychological perspectives of Mathematics education.

(or)

b) Design instructional strategies for Mathematics learning based on heuristic approach.

1. a) Explain the applications of the following methods of instruction.  
   i) Gettegno method ii) Dyne’s method iii) Van Hiele Geld method

(or)

b) What are the factors contributing to professionalism of Mathematics teacher? Suggest measures to develop professionalism among teachers.