

**Avinashilingam Institute for Home Science and Higher Education for Women
(Deemed to be University) Coimbatore – 641 043**

Bachelor of Education Degree Examination – April 2018
IV Semester

Class : II B.Ed.

Time: 3 Hrs
Max. Marks: 100

15BEDM14 School Subject I : Professionalising Mathematics Education

Part – A

10 x 1 = 10

Choose the correct answer

- Which of the following is *not* an advantage of content analysis ?
 - It allows us to observe otherwise inaccessible populations at first hand
 - It is a transparent and easily replicable technique
 - It allows us to track changes in media representations over time
 - It is a non-reactive method
- If coders differed in their interpretations of the categories in the schedule, it refers to
 - Internal generalisability
 - Intra-interviewer reliability
 - Construct validity
 - Inter-coder reliability
- The subject matter in mathematics books are mostly arranged in
 - psychological method
 - topical method
 - logical method
 - spiral method
- The text book should mostly satisfy _____ in students
 - drawing ability
 - individual variability
 - reading ability
 - speaking ability
- The no of phases of e-content development are
 - 10
 - 8
 - 6
 - 5
- Every Web page has a unique address called a(n)
 - URL
 - ARL
 - RUL
 - LUR
- Vogel's Spot Checklist is used for _____ analysis .
 - Content
 - Research
 - Text book
 - Pedagogical
- Which of the following is a form of research typically conducted by teachers, counselors, and other professionals to answer questions they have and to specifically help them solve local problems ?
 - Action research
 - Basic research
 - Predictive research
 - Oriental research
- Research that is done to examine the findings of someone else using the "same variables but different people" is called
 - exploration
 - hypothesis
 - replication
 - empiricism
- If U is denoted by 7, M by 2, I by 5, O by 1, K by 8 and J by 4, then what will be the numeric form of the word MOUJIK when written in the reverse order?
 - 217458
 - 845712
 - 854712
 - 857412

Part – B

5 X 6 = 30

Answer the following questions

Answer should not exceed 400 words or two pages

11. a. What are the advantages of content analysis in teaching mathematics ?
(or)
11. b. Describe the five types of text involved in content analysis in Mathematics Education.
12. a. Mention the uses of mathematics text book outside the classroom.
(or)
12. b. What is the need of mathematics text book in teaching ?
13. a. What is the importance of e-content development ?
(or)
13. b. What is Web Blog ? What are the different types of Blogs ?
14. a. What are the different types of variables ?
(or)
14. b. What are the advantages of applied research ?
15. a. What are the advantages of Mathematics fair ?
(or)
15. b. Construct any three Riddles in Mathematics and provide their solutions.

Part – C

5 X 12 = 60

Answer the following questions

Answer should not exceed 800 words or four pages

16. a. Prepare the pedagogical analysis for the topics i. Area of a trapezium ii. solving linear equation of two variables.
(or)
16. b. Describe the steps for content analysis in Mathematics ?
17. a. Critically evaluate the X standard mathematics text book.
(or)
17. b. Describe the characteristics of a good mathematics text book.
18. a. Describe the steps for preparing Multimedia package in Mathematics.
(or)
18. b. Describe the Components of Learning Management Systems (LMS). What are the uses of LMS in teaching Mathematics ?
19. a. What is hypothesis ? Explain the different types of hypotheses with examples.
(or)
19. b. What do you mean by action research? How will you use action research in Mathematics Education ?
20. a. What are the objectives of mathematics club? Describe the functions of mathematics club.
(or)
20. b. Describe any three co-curricular activities for learning mathematics.
