



Avinashilingam Institute for Home Science and Higher Education for Women

(Deemed to be University under Category A by MHRD, Estd. u/s 3 of UGC Act 1956)

Re-accredited with A+ Grade by NAAC. Recognised by UGC Under Section 12B

Coimbatore - 641 043, Tamil Nadu, India

Bachelor of Education / B. Ed. Special Education (VI/II) Degree Examination – July 2020
IV Semester

Class: II B.Ed. / II B.Ed. Special Education (VI/II)

Time : 2 Hours

Max. Marks : 50

**18BEDM14/18BDSM14 School Subject I: Professionalizing Mathematics
Education**

Course Outcomes:

- CO1: Describe the steps in content analysis
- CO2: Critically analyse the quality of mathematics textbook
- CO3: Develop e-content lesson for any topic
- CO4: Explain the types of research
- CO5: Develop research attitude among students
- CO6: Organize co-curricular activities in mathematics

Part A

10 x 1 = 10

Choose the Correct Answer

1. The area of a parallelogram is 60 cm^2 and one of its altitude is 5cm.
The length of its corresponding sides is CO1 K3
 - a. 12 cm
 - b. 6 cm
 - c. 4 cm
 - d. 2 cm
2. $11x = 5$, $y = -2$ is the solution of linear equation CO1 K3
 - a. $2x + y = 9$
 - b. $x + 3y = 1$
 - c. $2x - y = 12$
 - d. $x - 3y = 0$
3. Which is not the quality of a Mathematics text book? CO2 K2
 - a. It should be handy
 - b. It should be accurately written
 - c. The subject- matter should be with the aims of the author only
 - d. It should be interesting to the students
4. The Tetrahedron model of textbook use is CO2 K2
 - a. student, teacher, text book and mathematics
 - b. student, teacher, text book and robot
 - c. student, computer, text book and mathematics
 - d. teacher, computer, text book and mathematics
5. What provides access to excellent resources to explore and discover? CO3 K2
 - a. Mathematics Lab
 - b. Internet
 - c. LCD projector
 - d. Interactive Board
6. ----- represents a model of teaching and learning that has the potential to undermine and replace the business model of institutions. CO1 K2
 - a. Talk and chalk
 - b. Massive open online course
 - c. Institution-based courses
 - d. Face-to-face method
7. A statement about the value of a population parameter is called _____ hypothesis. CO4 K2
 - a. Null
 - b. Alternative
 - c. Simple
 - d. Composite
8. Which word fills all the blanks: We talk about generating.....,testing,.....
rejecting..... CO4 K2
 - a. questions
 - b. hypothesis
 - c. aims
 - d. objectives

9. The most popular method of long multiplication 'Gelosia' in the 15th and 16th century world had its origin in C05 K1
- a. France b. Egypt
c. India d. China
10. "The senses delight in things duly proportional" who made this statement relating beauty to mathematics. C05 K1
- a. Plato b. Thomas Aquinas
c. Euler d. Ecluid

Part B

3X6=18

Answer any three of the following
Each answer should not exceed 400 words or two pages

11. What is the need of content analysis in audio-visual aids for teaching Mathematics? C01 K2
12. What are the characteristics of content analysis in Mathematics? C01 K2
13. How will you use Mathematics text book for teaching-learning? C02 K3
14. Mention any five suggestions to improve the IX standard Mathematics text book of our state. C02 K3
15. What is e-learning content in Mathematics? C03 K2
16. What are the characteristics of e-content in Mathematics? C03 K2
17. Explain research hypothesis with illustrations. C04 K2
18. What are the characteristics of research in Mathematics education? C04 K2
19. What are the advantages of Puzzles for learning Mathematics? C05 K2
20. What are the functions of Mathematics Club in schools? C05 K2

Part C

2X11=22

Answer any two of the following
Each answer should not exceed 800 words or four pages

21. Prepare the pedagogical analysis of the following topics: C01 K3
i. Area of a Trapezium ii Solving linear equations of two variables
22. Critically analyse the content in Mathematics for the X standard in the Tamilnadu State board text book. C01 K4
23. How will you evaluate a text book in Mathematics for the high school classes? C02 K4
24. How will you use Mathematics text book outside the class in high schools? C02 K3
25. Describe the different phases of e-content development in Mathematics. C03 K2
26. Describe the authoring tools for developing e-content development. C03 K2
27. Describe the steps for Action Research with an illustration. C04 K2
28. Describe the steps for testing the hypothesis in Research in Mathematics education. C04 K2
29. How will you organize a Mathematics club in your school? What are the advantages of Mathematics club for teaching-learning? C05 K3
30. How will you make learning of Mathematics an interesting one? C05 K3