

F 4597

(Pages : 2)

Reg. No.....

Name.....

B.Ed. (CREDIT AND SEMESTER) DEGREE EXAMINATION, DECEMBER 2016

First Semester

Pedagogic Course

EDU 104.16—UNDERSTANDING THE DISCIPLINE OF MATHEMATICS EDUCATION

(2015 Admission onwards (Two Year Course))

[Regular/Supplementary]

Time : Two Hours

Maximum : 50 Marks

Part A

Answer all questions.

All questions carries 1 mark each.

1. Write any *two* contributions of Ramanujan to number theory.
2. What is meant by cultural value of learning mathematics ?
3. Write a situation where mathematics is related to Social Science.
4. How mathematics language is different from other languages ?
5. Write any *two* proponents of Social constructivism.
6. Why Euclid is considered as Father of Geometry ?
7. List any *two* objectives of teaching mathematics at higher secondary level.
8. Write a situation where vocational value of mathematics is exemplified.
9. List any *two* characteristics of mathematics.
10. What is meant by Induction ?

(10 × 1 = 10 marks)

Part B

Answer any five questions.

Each question carries 2 marks.

11. Is there a division of mathematics as pure and applied ? Justify your answer .
($\frac{1}{2} + 1\frac{1}{2} = 2$ marks)
12. Briefly explain the vocational values of teaching mathematics.
13. Illustrate the paradigm shift in the nature of mathematics from empirical to logical.
14. What is the role of teacher in developing mathematical creativity ?
15. Make a comparison of objectives of teaching mathematics at primary and secondary levels.
16. How history of mathematics can be used for improving mathematics teaching and learning ?

(5 × 2 = 10 marks)

Turn over

Part C

Answer any five questions.

All questions carries 4 marks each.

17. Bringout the importance of Induction, Intuition and logical thinking in mathematics learning.
18. Compare constructivist and behaviourist approaches to mathematics education.
19. How experiential learning can be made in a mathematics class ?
20. Give *two* situations where teacher can encourage students to think mathematically.
21. Write a short note on the mathematician Rene Descarte.
22. Explain the 'New Math' movement.
23. How does mathematics work as a vehicle to Nation building ?

(5 × 4 = 20 marks)

Part D

Answer any one question.

The question carries 10 marks

24. Explain the multiple intelligences put forward by Gardner. How a mathematics teacher can use these concepts in his/her classroom ? Illustrate.

(4 + 4 + 2 = 10 marks)

25. What are aims of teaching mathematics ? Explain each with suitable example ?

(2 + 8 = 10 marks)

[1 × 10 = 10 marks]