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Reg. No.....

Name.....

B.Ed. (CREDIT AND SEMESTER) DEGREE EXAMINATION, NOVEMBER 2017

First Semester

Pedagogic Course

EDU 104. 16-UNDERSTANDING THE DISCIPLINE OF MATHEMATICS EDUCATION

(Two Year Course-2015 Admission onwards)

[Regular/Supplementary]

Time : Two Hours

Maximum : 50 Marks

Part A

Answer all questions. Each question carries 1 mark.

1. Write any two mathematical contributions of Rene Descarte.

2. What is the meaning of the word 'Geometry' ?

3. Why Algebra is considered as the generalized Arithmetic ?

4. What is the difference between Pure and Applied Mathematics ?

5. List any two disciplinary values of learning Mathematics.

6. How Mathematics is related to Music?

7. Write any two objectives of teaching Mathematics at Primary level.

8. What is the role of symbols in Mathematics ?

9. Name the author of 'Sidhanta Siromani'.

10. What is meant by 'Mathematics' ?

 $(10 \times 1 = 10 \text{ marks})$

Part B

Answer any five questions. Each question carries 2 marks.

- 11. Briefly explain the concept of 'New Math'.
- 12. Write a short note on the development of Mathematics from empirical to rational stage.
- 13. What are the major contributions of Mathematics to the field of Information and Communication Technology ?

14. Define Mathematical Creativity.

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15. Bring out the importance of history of Mathematics.

16. What is meant by Experimental learning?

 $(5 \times 2 = 10 \text{ marks})$

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Part C

Answer any five questions. Each question carries 4 marks.

- 17. Explain the role of Mathematics in the social development.
- 18. What is meant by Mathematization of thinking process ? Write a situation where Mathematical thinking can be developed.
- 19. Write any four Mathematical concepts/principles used by an individual in his daily life.
- 20. Explain the major tenets of cognitive constructivism.
- 21. Write a short note on any one Indian Mathematician.
- 22. Do you think behaviourism is relevant in Mathematics education Establish your answer.
- 23. Illustrate the relationship of Mathematics with other subjects.

 $(5 \times 4 = 20 \text{ marks})$

Part D

Answer any **one** question. The question carries 10 marks.

24. What is meant by 'Aims of teaching Mathematics' ? Explain various aims of teaching Mathematics with suitable examples.

(2 + 8 = 10 marks)

25. Explain Gardner's theory of multiple intelligences. Bring out its implications in mathematics education.

(5 + 5 = 10 marks) [1 × 10 = 10 marks]