

Reg. No. :

Name :

First Semester B.Ed. Degree Examination, August 2021

EDU 04.7 – THEORETICAL BASE OF MATHEMATICS EDUCATION

(2019 Admn. Onwards)

Time : 2 Hours

Max. Marks : 50

(Answer **all** questions from Part – A, Part – B & Part – C, any four questions from Part – D and one question from Part – E).

PART – A

Select the most appropriate option from those given in the brackets for questions: 1 to 5.

1. Who is known as the father of numbers

- | | |
|----------------|---------------|
| (a) Archimedes | (b) Aryabhata |
| (c) Pythagoras | (d) Euclid |

2. Knowledge construction is the key aspect of

- | | |
|-----------------------------|----------------------------|
| (a) Behaviourist approach | (b) Heuristic Approach |
| (c) Constructivist Approach | (d) Problem based learning |

3. Outcome based learning gives emphasis for

- | | |
|---------------|-------------|
| (a) Process | (b) Product |
| (c) Attitudes | (d) Values |

4. Designing is a specification of the objective
- | | |
|-------------------|--------------|
| (a) Understanding | (b) Applying |
| (c) Analyzing | (d) Creating |
5. 'Principia Mathematica' was written by
- | | |
|-------------------|---------------------|
| (a) George cantor | (b) Bertrand Russel |
| (c) Rene Decarte | (d) Guass |

(5 × 1 = 5 Marks)

PART – B

Write the answer in a sentence/ word (questions 6-10). Each question carries 1 Mark.

6. What is an Axiom?
7. Write any two characteristics of Mathematics.
8. RBT stands for.
9. List any two major contributions of Aryabhatta to Mathematics.
10. What is the role of a teacher as a facilitator?

(5 × 1 = 5 Marks)

PART – C

Answer **all** questions in a paragraph.

11. Differentiate between pure and applied mathematics.
12. What you mean by objective based instruction?
13. How will you concretize the abstract concepts of mathematics while teaching?
14. Explain any four roles of a teacher as a Social Engineer.
15. Write a short note on the aesthetic value of mathematics.

(5 × 2 = 10 Marks)

PART – D

Answer **any four** questions in $1\frac{1}{2}$ page.

16. Give a brief description on nature of mathematics.
17. Discuss the aims of teaching Mathematics.
18. Explain the maxims of teaching.
19. Bring out the relevance of digital taxonomy in the present era.
20. How mathematics is related with daily life?
21. Do you think heuristic approach develop discovery learning? Justify your answer.

(4 × 5 = 20 Marks)

PART – E

Answer **any one** questions in 3 pages.

22. Explain Blooms Taxonomy of Educational objectives.
23. Differentiate Analytic and synthetic method with its merits and demerits. Illustrate both with suitable examples.

(1 × 10 = 10 Marks)
