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Reg. No.....

Name.....

M.Ed. (C.B.C.S.S.) DEGREE EXAMINATION, JANUARY 2012

First Semester

Core Course

EDU 904.6—ADVANCED METHODOLOGY OF MATHEMATICS EDUCATION

(Regular)

Time : Three Hours

Maximum Weight : 32

Part A

*Answer any two questions.
Each question carries a weight of 4.*

1. Explain the Bloom's taxonomy of educational objectives.
2. Explain the historical development of mathematics in 19th and 20th century.
3. What is the role of evaluation in the teaching learning programme ?
4. Explain the professional development programmes that can be conducted for the improvement of mathematics teaching.

(2 × 4 = 8)

Part B

*Answer any six questions.
Each question carries a weight of 2.*

5. What are the characteristics of modern mathematics ?
6. Describe the holistic approach of constructivism.
7. What do you mean by horizontal and vertical acceleration in connection with curriculum ?
8. How will you manage a classroom effectively ?
9. What is the role of library in mathematics learning ?
10. What do you understand by continuous and comprehensive evaluation ?
11. Write the challenges faced by a mathematics teacher.
12. Write the aims of education presented in National Curriculum Framework.

(6 × 2 = 12)

Part C

*Answer any six questions.
Each question carries a weight of 1.*

13. Define issue based approach.
14. What are the functions of mathematics club ?
15. Write two activities that can be conducted in mathematics laboratory.

Turn over

16. Write two extension activities that can be conducted by mathematics students.
17. What is mathematical modelling ?
18. Write the criteria for organisation of contents in a particular class.
19. Write any two methods for individualising instruction.
20. Write any one recreational activity in mathematics classroom.

(6 × 1 = 6)

Part D

*Answer all questions.
Each question carries a weight of ½.*

21. Give two merits of spiral curriculum.
22. State the aesthetic aspect of mathematics.
23. List two contributions of Ramanuja.
24. What do you mean by pure mathematics ?
25. Write a simple mathematics puzzle.
26. What do you mean by specification ?
27. Write any two aims of mathematics education.
28. Suggest any two enrichment activity in trigonometry.
29. Write any two components of classroom management.
30. What is summative evaluation ?
31. Write two professional skills of a mathematics teacher.
32. Suggest two measures to develop interest in mathematics.

(12 × ½ = 6)