

B. Ed
Second Semester
MATHEMATICS
BED-203 A

Duration: 3Hrs.

Full Marks: 70

Part-A (Objective) =20
Part-B (Descriptive) =50

(PART-B: Descriptive)

Duration: 2 hrs. 40 mins.

Marks: 50

Answer any four from Question no. 2 to 8
Question no. 1 is compulsory.

1. List the important parts of a good lesson plan .Write a lesson plan on any *one* of the following indicating the class for which the lesson is suitable. 2+8=10
 - (a) First lesson on Percentage
 - (b) First lesson on polynomials
 - (c) Area of a Circle
2. Discuss briefly the cultural value of mathematics. Illustrate with examples the importance of mathematics as school subject. 5+5=10
3. Discuss the relationship between aims and objectives of teaching mathematics. What are the objectives of teaching mathematics at different stages of education? 2+8=10
4. Write notes on any two of the following : 5+5=10
 - (i) Use of Analytic method
 - (ii) Limitations of Deductive method
 - (iii) Correlation of mathematics with Social sciences
5. State how you will introduce in the class any *two* of the following topics: $5 \times 2 = 10$
 - (a) Concept of simple interest
 - (b) Concept of congruency of triangles
 - (c) Discount
6. For any class vi-x mathematics, set a question paper after making a blue print. 5+5=10
7. What are the characteristics of a good learning experience? Write the principles of learning experience. 5+5=10
8. Discuss briefly the achievement of two great Indian mathematicians. What is their place among the galaxy of the mathematicians? 5+5=10

B.Ed
second Semester
Teaching of Mathematics
(BED – 203 A)
[PART-A: Objective]

I. Choose the correct answer from the following: 1x20=20

1. Mathematics helps the students to develop the following skills
 - a. Skill in measuring
 - b. Skill in reading
 - c. Skill in surveying
 - d. All of the above
2. A Triangle cannot be constructed with angles
 - a. $75^\circ, 55^\circ, 60^\circ$
 - b. $60^\circ, 35^\circ, 85^\circ$
 - c. $90^\circ, 40^\circ, 50^\circ$
 - d. $5^\circ, 10^\circ, 165^\circ$
3. Inductive method starts
 - a. from general to particular
 - b. from abstract to concrete
 - c. from particular to general
 - d. with rule and provides for practice and applications
4. Choose the equivalent of $\frac{7}{13}$ in the following
 - a. $\frac{13}{7}$
 - b. $\frac{17}{3}$
 - c. $\frac{42}{91}$
 - d. $\frac{42}{78}$
5. How many rational numbers exists between 2 and 3
 - a. 10
 - b. 15
 - c. 0
 - d. infinite
6. Eight years hence a man will be twice as he was 8 years ago, then his present age will be
 - a. 24 years
 - b. 26 years
 - c. 28 year
 - d. 30 years
7. What percent of an hour is two minutes
 - a. 3.2%
 - b. 3.6%
 - c. 3.3%
 - d. None of the above
8. In a right angled triangle
 - a. Hypotenuse = perpendicular +base
 - b. $[\text{Hypotenuse}]^2 = [\text{perpendicular}]^2 + [\text{base}]^2$
 - c. Hypotenuse = $[\text{perpendicular}]^2 + [\text{base}]^2$
 - d. None of the above
9. Factors of $x^2 + 6x + 8$
 - a. 1, 2
 - b. 2, 3
 - c. 2, 4

d. 3,4

10. If a bisector of the vertical angle of a triangle bisects the base, the triangle will be
- Equilateral
 - Isosceles
 - Scalene
 - A right angled
 -
11. The length of a rectangle is 2 cm more than its width and its perimeter is 20 cm, then area of the rectangle is
- 20cm^2
 - 22 cm^2
 - 24 cm^2
 - None of the above.
12. A branch of mathematics dealing with the collection of data, organizing, summarizing etc. and calculate them is called
- Arithmetic
 - Geometry
 - Statistics
 - Algebra
13. A student fails by 50 marks when he gets 30% marks. Another student passes by 30 marks when he gets 230 marks. Then which of the following is the passing marks?
- 200
 - 150
 - 250
 - None of the above
14. A can do a piece of work in 10 days and B can do it in 16 days. No of days complete the work if they work together is
- 5
 - 6
 - 7
 - 8
15. If cost price of 15 articles is equal to selling price of 20 articles then the loss percentage is
- 33.3%
 - $33\frac{1}{3}\%$
 - Both [a] and [b]
 - 25%
16. The value of 36° in radian is
- $\pi/3$
 - $\pi/4$
 - $\pi/5$
 - π
17. Rajesh obtains a loan of Rs80000 against his property. If the rate of interest be 45 paisa per 3 rupees per annum, then the compound interest paid by him after 3 years is

- a. Rs51670
- b. Rs51000
- c. Rs41670
- d. Rs37670

18. *BijaGanita* was written by

- a. Ramanujan
- b. Aryabhata
- c. Brahmagupta
- d. Bhaskara

19. The symbol 'i' for expressing imaginary quantity $\sqrt{-1}$ was first used by

- a. Pythagoras
- b. Gauss
- c. Aryabhata
- d. None of the above

20. $22/7$ as the value of π was given by

- a. Brahmagupta
- b. Aryabhata
- c. Pythagoras
- d. Gauss