



EDUSAMBAM ASSESSMENT SERIES

Number Systems

PRINTABLE PRACTICE WORKSHEET

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Candidate Name:

Roll No.:

Class / Grade:

Date:

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Test Centre:

Subject

Mathematics (Maths)

Topic

Number Systems

Total Marks

100

Total Questions

45

Time Allowed

1 Hour (60 minutes)

Version

A

GENERAL INSTRUCTIONS

1. Read each question carefully before answering.
2. For Section A and Section B, mark one answer only.
3. For Sections C and E, write your answer clearly in the space provided.
4. For Section D, write the correct letter from Column B against each item in Column A.
5. Do not use correction fluid. Keep all answers clear and legible.
6. This worksheet is prepared from the EDUSAMBAM practice assessment supplied for this paper.

PAPER PATTERN

Section	Questions	Marks Each	Total
Section A — Multiple Choice	15	2	30
Section B — True / False	10	2	20
Section C — Fill in the Blank	10	2	20
Section D — Column Matching	5 pairs	2	10
Section E — Short Answer	5	4	20
Total	45	—	100

Section A — Multiple Choice

30 marks

1. The place value of a digit depends on:

- A.** Its position in the number
C. The size of the page

- B.** Its color
D. Nothing

Answer: ☐A ☐B ☐C ☐D

Basic • 2 pts

2. The face value of a digit is:

- A.** The digit itself, regardless of its position
C. The digit multiplied by 100

- B.** Always zero
D. The number of digits in the number

Answer: ☐A ☐B ☐C ☐D

Basic • 2 pts

3. In the number present, natural numbers start counting from:

- A.** Negative infinity
C. Only even numbers

- B.** 1 (or 0 depending on convention), and go upward
D. Only fractions

Answer: ☐A ☐B ☐C ☐D

Basic • 2 pts

4. Whole numbers include:

- A.** Natural numbers plus zero
C. Only fractions

- B.** Only negative numbers
D. Only decimals

Answer: ☐A ☐B ☐C ☐D

Basic • 2 pts

5. Integers include:

- A.** Only positive numbers
C. Only fractions

- B.** Positive numbers, negative numbers, and zero
D. Only decimals

Answer: ☐A ☐B ☐C ☐D

Intermediate • 2 pts

6. A rational number can be expressed as:
A. A fraction of two integers, with a non-zero denominator
C. Never as a fraction
Answer: ☐A ☐B ☐C ☐D

B. Only a whole number
D. Only a negative number

Intermediate • 2 pts

7. Which of these is an example of a rational number?
A. 3/4
C. Pi (π)
Answer: ☐A ☐B ☐C ☐D

B. The square root of 2 (an irrational number)
D. None of these

Intermediate • 2 pts

8. Real numbers include:
A. Only whole numbers
C. Only negative numbers
Answer: ☐A ☐B ☐C ☐D

B. Both rational and irrational numbers
D. Only fractions

Intermediate • 2 pts

9. Roman numerals use letters such as:
A. I, V, X, L, C, D, M
C. 1, 2, 3, 4
Answer: ☐A ☐B ☐C ☐D

B. A, B, C, D
D. Greek letters only

Intermediate • 2 pts

10. In Roman numerals, the letter "X" represents:
A. 5
C. 50
Answer: ☐A ☐B ☐C ☐D

B. 10
D. 100

Intermediate • 2 pts

11. The binary number system uses only the digits:
A. 0 and 1
C. 1 through 5
Answer: ☐A ☐B ☐C ☐D

B. 0 through 9
D. A through F

Intermediate • 2 pts

12. The decimal number system is based on:
A. Base 2
C. Base 16
Answer: ☐A ☐B ☐C ☐D

B. Base 10
D. Base 8

Advanced • 2 pts

13. The octal number system is based on:
A. Base 2
C. Base 10
Answer: ☐A ☐B ☐C ☐D

B. Base 8
D. Base 16

Advanced • 2 pts

14. Which number base system is commonly used in computing at the lowest level?
A. Binary (base 2)
C. Base 5
Answer: ☐A ☐B ☐C ☐D

B. Roman numerals
D. Base 7

Advanced • 2 pts

15. In the International number system, place values include ones, tens, hundreds, and:
A. Thousands
C. Only tens
Answer: ☐A ☐B ☐C ☐D

B. Only ones
D. None of these

Advanced • 2 pts

Section B — True / False

20 marks

16. Place value depends on where a digit is positioned in a number.
A. True ☐ **B.** False ☐

Basic • 2 pts

17. Face value of a digit changes depending on its position in the number.
A. True ☐ **B.** False ☐

Basic • 2 pts

18. Natural numbers are used for basic counting.
A. True ☐ **B.** False ☐

Basic • 2 pts

19. Whole numbers include zero along with all natural numbers.
A. True ☐ **B.** False ☐

Basic • 2 pts

20. Integers can be negative, zero, or positive.
A. True ☐ **B.** False ☐

Intermediate • 2 pts

21. Every rational number can be written as a fraction of two integers.
A. True ☐ **B.** False ☐

Intermediate • 2 pts

22. Irrational numbers, like pi, can be written as an exact simple fraction.
A. True ☐ **B.** False ☐

23. Real numbers include both rational and irrational numbers.
A. True ☐ **B.** False ☐

24. Roman numerals use the standard Hindu-Arabic digits 0 through 9.
A. True ☐ **B.** False ☐

25. The binary number system uses only two digits: 0 and 1.
A. True ☐ **B.** False ☐

Intermediate • 2 pts

Intermediate • 2 pts

Intermediate • 2 pts

Intermediate • 2 pts

Section C — Fill in the Blank

20 marks

26. The value of a digit based on its position in a number is called its ____ value.
Answer: _____

27. The value of a digit itself, regardless of position, is called its ____ value.
Answer: _____

28. Numbers used for basic counting, like 1, 2, 3, are called ____ numbers.
Answer: _____

29. Natural numbers plus zero are called ____ numbers.
Answer: _____

30. Numbers that include positive numbers, negative numbers, and zero are called ____.
Answer: _____

31. A number that can be written as a fraction of two integers is called a ____ number.
Answer: _____

32. A number that cannot be written as an exact fraction, like pi, is called an ____ number.
Answer: _____

33. The ancient number system that uses letters like I, V, and X is called ____ numerals.
Answer: _____

34. The number system that uses only 0 and 1 is called the ____ system.
Answer: _____

35. The number system based on 10 digits (0-9) that we use every day is called the ____ system.
Answer: _____

Basic • 2 pts

Basic • 2 pts

Basic • 2 pts

Basic • 2 pts

Intermediate • 2 pts

Intermediate • 2 pts

Intermediate • 2 pts

Intermediate • 2 pts

Intermediate • 2 pts

Intermediate • 2 pts

Section D — Column Matching

10 marks

36-40. Match each term to its correct definition.

Column A	Answer	Column B
Place Value	____	A. A number that cannot be written as an exact simple fraction
Rational Number	____	B. An ancient number system using letters like I, V, and X
Irrational Number	____	C. A number system that uses only the digits 0 and 1
Roman Numerals	____	D. The value of a digit based on its position in a number
Binary System	____	E. A number that can be expressed as a fraction of two integers

Section E — Short Answer

20 marks

41. Explain the difference between place value and face value.

42. What is the difference between whole numbers and natural numbers?

Advanced • 4 pts

Advanced • 4 pts

43. What makes a number a rational number?

Advanced · 4 pts

44. Give one example of a real-life or historical use of Roman numerals.

Advanced · 4 pts

45. Why is the binary number system important in computing?

Advanced · 4 pts

Candidate Signature: _____ **Invigilator Signature:** _____

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Marks Obtained: _____ / 100

Checked By: _____

Result / Grade: _____

Date Checked: _____

EDUSAMBAM ASSESSMENT SERIES

Number Systems — Answer Key

Teacher reference: equivalent grammatically correct wording is acceptable for open-ended items when the meaning is preserved.

Section A — Multiple Choice

1. A

2. A

3. B

4. A

5. B

6. A

7. A

8. B
9. A

10. B

11. A

12. B

13. B

14. A

15. A

Section B — True / False

16. True

17. False

18. True

19. True

20. True
21. True

22. False

23. True

24. False

25. True

Section C — Fill in the Blank

26. place

27. face

28. natural

29. whole

30. integers
31. rational

32. irrational

33. roman

34. binary

35. decimal

Section D — Column Matching

36. Place Value — D

37. Rational Number — E

38. Irrational Number — A
39. Roman Numerals — B

40. Binary System — C

Section E — Short Answer (Model Answers)

41. position; itself; regardless; location

42. zero; counting; start

43. fraction; integer; ratio; expressed

44. clock; book; chapter; monument; movie; king; queen

45. computer; digital; 0 and 1; electronic; processor