

YOUR SCHOOL NAME

CHAPTER TEST

DO NOT OPEN THIS BOOKLET UNTIL ASK TO DO SO

Total Questions: 50 | Time: 1 hr.

Name Test Code

Roll No Section Contact Number

Guideline for the candidate

1. You will get addition 5 minutes to fill up information about your self on the OMR sheet, before the start exam
2. Write your **Name**, **Class**, **Section**, and **Roll Number** and **Mobile Number** clearly on the **OMR sheet** and do not forget to sign it.
3. The Question Paper comprises THREE sections:

Mathematical Reasoning (30 Questions), **Every day Mathematics** (15 Questions),
and **Achiever section** (5 Questions)

Each Question in Achiever Section Carries 3 marks, Whwew as all other Question carry one mark each

4. All Questions are compulsory. There is no negative marking. Use of calculator is not permitted.
5. There is only one correct answer. Choose only ONE option for answer
6. To mark your choice of answer by darkening the circles on the OMR sheet,
use **HB Pencil/ Black ball point pen** only.
7. Return the OMR sheet to the invigilator at the end of the exam.
8. Please fill in your personal details in the space provided on this page before attempting the paper.

Students signature..... Invigilator Signatures;

CHAPTER TEST (FOUNDATION)

Topic: Ration and Proportion

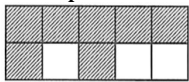
Subject: Mathematics

F-M-06-CT-12

Mathematical Reasoning Section

- The ratio 3 : 16 is equal to
(1) 14.85 % (2) 20.35 %
(3) 16.55 % (4) 18.75 %
- If $x : 32 :: 4 : 16$, then value of x is _____.
(1) 16 (2) 15 (3) 8 (4) 4
- One pack of 3 sausages costs ₹ 120. What is the cost of 21 sausages?
(1) ₹ 2520 (2) ₹ 40 (3) ₹ 630 (4) ₹ 840
- Which one of the following is correct about the ratio of first two even numbers?
(1) 2 : 3 (2) 5 : 7 (3) 7 : 9 (4) 1 : 2
- If the cost of 3 dozen of banana is ₹ 60, then the cost of 5 dozen of banana is ₹ _____.
(1) ₹ 100 (2) ₹ 120 (3) ₹ 40 (4) ₹ 50
- Divide ₹ 60 in ratio 1 : 2 between Kirti and Kamal.
(1) Kirti = ₹ 20, Kamal = ₹ 40
(2) Kirti = ₹ 30, Kamal = ₹ 60
(3) Kirti = ₹ 60, Kamal = ₹ 30
(4) Kirti = ₹ 40, Kamal = ₹ 20
- The ratio of 44 km to 121 km is _____.
(1) 5 : 11 (2) 4 : 11 (3) 3 : 11 (4) 2 : 11
- Find the reduced form of the ratio 50 litres : 62 litres.
(1) 31 : 25 (2) 25 : 31 (3) 3 : 2 (4) 2 : 3
- The length and breadth of a rectangular field are 50 m and 15 m respectively. Find the ratio of the length to the breadth of the field.
(1) 10 : 3 (2) 3 : 10 (3) 1 : 3 (4) 3 : 1
- What will be third term if first, second and fourth terms of a proportion are a , b and c respectively?
(1) abc (2) $\frac{a \times c}{b}$ (3) $\frac{b}{a \times c}$ (4) $a \times c$
- If a car can go 90 km on 6 litres of petrol, then the car can go _____ km on 15 litres of petrol.
(1) 150 (2) 225 (3) 200 (4) 175
- Distance travelled by Pawan and Ankit in an hour are 12 km and 15 km respectively. Find the ratio of the speed of Pawan to the speed of Ankit.
(1) 7 : 5 (2) 2 : 5 (3) 3 : 5 (4) 4 : 5
- What will be the cost of 7 articles if the cost of 120 articles is ₹ 6480?
(1) ₹ 453 (2) ₹ 456 (3) ₹ 654 (4) ₹ 378
- The ratio of 20 cm to 2 m is _____.
(1) 10 : 1 (2) 1 : 20 (3) 1 : 10 (4) 20 : 1
- Both x and y are in direct proportion, then $\frac{1}{x}$ and $\frac{1}{y}$ are
(1) in indirect proportion
(2) neither in direct nor in inverse proportion
(3) sometimes in direct and sometimes in inverse proportion
(4) in direct proportion
- If $a : b = 3 : 4$ and $b : c = 3 : 4$ then find the value of $a : c$.
(1) 3 : 4 (2) 4 : 3 (3) 9 : 16 (4) 3 : 16
- If a bus travels 160 km in 4 hours and a train travels 320 km in 5 hours at uniform speeds, then the ratio of the distances travelled by them in one hour is
(1) 4 : 5 (2) 1 : 2 (3) 8 : 5 (4) 5 : 8
- If $2x = 3y = 4z$, then $x : y : z$ is
(1) 4 : 2 : 5 (2) 6 : 4 : 3
(3) 5 : 4 : 2 (4) 2 : 3 : 4
- If Manoj earns ₹ 1200 in 10 days, then Manoj's income for 18 days is ₹ _____.
(1) ₹ 3600 (2) ₹ 2160
(3) ₹ 3400 (4) ₹ 2400
- Find the equivalent ratio of 7 : 5 from the options given below?
(1) 14 : 10 (2) 3 : 5
(3) 19 : 12 (4) 18 : 54
- Find the ratio of 50 paise to ₹ 1?
(1) 1 : 3 (2) 1 : 2 (3) 2 : 1 (4) 3 : 1

21. In the word **EDUCATION**, the ratio of number of consonants to the number of vowels is _____.
 (1) 4 : 6 (2) 7 : 2
 (3) 3 : 4 (4) 4 : 5
22. Out of 30 students in a class, 6 like football, 12 like cricket, and remaining like tennis. Find the ratio of the number of students liking cricket to the total number of students.
 (1) 2:1 (2) 2:5
 (3) 1:2 (4) 5:2
23. The 36:84 is equivalent ratio of _____.
 (1) 1:7 (2) 7:1
 (3) 7:3 (4) 3:7
24. A picture is 60cm wide and 1.8m long. The ratio of its width to its perimeter in lowest form is
 (1) 1 : 8 (2) 1 : 3
 (3) 1 : 2 (4) 1 : 4
25. The ratio of number of even numbers to number of odd numbers in a set of natural numbers from 1 to 25 is _____.
 (1) 12 : 13 (2) 2 : 13
 (3) 1 : 13 (4) 7 : 13
26. If the weight of 81 books is 9 kg, then _____ books will weigh 1 kg.
 (1) 27 (2) 9 (3) 18 (4) 20
28. The 30 : 45 is equivalent ratio of _____.
 (1) It is 1:3 (2) It is 2:3
 (3) It is 1:2 (4) It is 3:2
29. What is the ratio of the shaded parts out of total parts in the given figure?



- (1) 1 : 3 (2) 5 : 11
 (3) 10 : 11 (4) 7 : 10

30. Find the ratio of the shaded to unshaded parts in the figure given below.

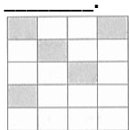


- (1) 1 : 3 (2) 1 : 4
 (3) 2 : 3 (4) 1 : 1

Every day Mathematics

31. ₹ 770 have been divided among A, B, C in such a way that A receives $\frac{2}{9}$ th of what B and C together receive. Then, A's share is
 (1) ₹ 170 (2) ₹ 165
 (3) ₹ 154 (4) ₹ 140
32. Ravi and Rani started a business and invested money in the ratio 2 : 3. After one year the total profit was ₹ 40,000. What is the share of Ravi in profit?
 (1) ₹ 15000 (2) ₹ 24000
 (3) ₹ 16000 (4) ₹ 20000
33. Two quantities can be compared only if they are in the same _____.
 (1) ratios (2) quantity
 (3) proportions (4) units
34. Ram have 60 Chocolate and Rahim have 120 chocolate, Find their Chocolate ratio _____.
 (1) 1:2 (2) 1:3
 (3) 2:1 (4) 2:3
35. If two ratios are _____, we say that they are in proportion.
 (1) different (2) equal
 (3) not equal (4) not different
36. In a ratio, first term is called _____ and second term is called _____.
 (1) product, average
 (2) antecedent, consequent
 (3) consequent, antecedent
 (4) average, product
37. Fill in the blank: - 32 m : 64 m = 6 sec : _____.
 (1) 20sec (2) 6 sec
 (3) 12 sec (4) 18 sec
38. Fill in the blank: - 25, 30, _____ and 48 are in proportion.
 (1) 55 (2) 45 (3) 40 (4) 50
39. Fill in the blank: 12:108 = 1: _____.
 (1) 7 (2) 1 (3) 8 (4) 9
40. Fill in the blank: - 30, 40, _____, and 60 are in proportion.
 (1) 15 (2) 35 (3) 5 (4) 45

41. Ratio of shaded part to unshaded part is



- (1) 1 : 4 (2) 1 : 3
(3) 5 : 7 (4) 1 : 2

42. **Assertion (A):** Cost of 16 m cloth is ₹ 1280.
The cost of 10 m cloth is ₹ 800.

Reason (R): If two ratios are in proportion, then product of means = product of extremes.

- (1) Both A and R are true and R is the Correct explanation of A.
(2) Both A and R are true but R is not the correct explanation of A.
(3) A is true but R is false.
(4) A is false but R is true.

43. What must be added to the numbers 8, 14, 28 and 42 so that they are in proportion?

- (1) 9 (2) 7 (3) 8 (4) 3

44. **Assertion (A):** 36 km: 81 km and 28 hours: 63 hours are in proportion.

Reason (R): Two ratios are in proportion, when they are equivalent ratios.

- (1) Both A and R are true and R is the correct explanation of A.
(2) Both A and R are true but R is not the correct explanation of A.
(3) A is true but R is false.
(4) A is false but R is true.

45. Cost of five burgers is ₹ 725 and six pastries is ₹ 210. If I want to purchase 3 burgers and 12 pastries, how much should I pay?

- (1) ₹ 950 (2) ₹ 1050
(3) ₹ 921 (4) ₹ 855

47. **Assertion (A):** The x in $5 : x :: 15 : 21$ is 14.

Reason (R): Proportion is an equality between two ratios.

- (1) Both A and R are true and R is the correct explanation of A.
(2) Both A and R are true but R is not the correct explanation of A.
(3) A is true but R is false.
(4) A is false but R is true.

48. Which of the following is correct?

1. $16 : 32 = 10 : 20$
2. $3 : 4 = 15 : 25$
3. $7 : 3 = 14 : 3$
4. $5 : 15 = 9 : 20$

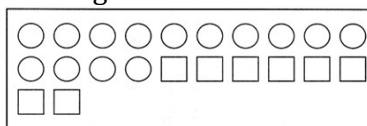
- (1) (A) (2) (C) (3) (B) (4) (D)

49. Which one among the following statements is not correct?

1. The ratio of the heights 1.68m and 63cm of two persons can be written as 8 : 3.
2. $3 : 16 :: 96 : 512$
3. 0.02 is equivalent to 2%
4. To compare two quantities, their units can be different.

- (1) Option (3) (2) Option (1)
(3) Option (2) (4) Option (4)

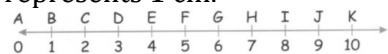
50. Find the ratio of the number of circles to the number of squares inside the following rectangle.



- (1) 3 : 1 (2) 7 : 4
(3) 2 : 3 (4) 2 : 1

Achiever Section

46. In the following number line, each division represents 1 cm.



The ratio of AC : AF is _____.

- (1) 2 : 5 (2) 4 : 5
(3) 3 : 5 (4) 1 : 5