

CCE-15-SA-II-Class-7-Maths-Question Paper

SECTION A

(1 x 15 = 15)

1. The ratio of 3 kg. to 1 kg. 500 g. in the simplest form is
(a) 1:5 (b) 5:1 (c) 2:1 (d) 1:2
2. 30% of which of the following is 9?
(a) 270 (b) 900 (c) 30 (d) 60
3. If C.P. = Rs.10,000, P% = 20, S.P. =
(a) Rs. 12,000 (b) Rs. 10,020 (c) Rs. 10,200 (d) Rs. 10,002
4. The additive inverse of $\frac{-4}{5}$ is
(a) $\frac{4}{5}$ (b) $\frac{5}{4}$ (c) $\frac{-5}{4}$ (d) $\frac{4}{-5}$
5. The height of a parallelogram with area 42 cm^2 and base 7 cm. is
(a) 21 cm. (b) 12 cm. (c) 3 cm. (d) 6 cm.
6. The circumference of a circle whose diameter is 10cm. is
(a) 31.4 cm^2 (b) 31.4 cm. (c) 314 cm^2 (d) 314 cm.
7. The number of times a wheel of radius 28cm must rotate to go 352 m. is
(a) 200 (b) 20 (c) 2000 (d) 250
8. Subtracting $-3x^2 - 1$ from 0 we get
(a) $-3x^2 - 1$ (b) $-3x^2 + 1$ (c) $3x^2 + 1$ (d) $3x^2 - 1$
9. The expression $5-3t$ is a
(a) monomial (b) binomial (c) trinomial (d) none
10. The value of the expression when $n = -2$ in $5n - 2$ is
(a) 12 (b) 8 (c) -12 (d) -8
11. The value of $(100)^0$ is
(a) 0 (b) -1 (c) 1 (d) 100
12. The standard form of 25730 is
(a) 257.3×10^2 (b) 25.73×10^3 (c) 2.573×10^3 (d) 2.573×10^4
13. The angle of rotation of an equilateral triangle is
(a) 60° (b) 120° (c) 180° (d) 270°
14. Which of the following has only one axis of symmetry
(a) a rectangle (b) a square (c) a semi-circle (d) an equilateral triangle
15. Two cubes each of edge 3cm is joined face to face. The breadth of the solid so formed is
(a) 3 cm. (b) 6 cm. (c) 9 cm. (d) none.

33. The cost of 25 chairs is 36000.
 (i) Find the cost of 12 such chairs.
 (ii) How many chairs can be bought for Rs 14400?
34. The area of a triangular field is equal to that of a square field whose each side measures 70 m. Find the side of a triangle whose corresponding altitude is 98m.
35. Write the number of rotational symmetries of the following figures. Also give the order of rotation and the angle of rotation.
 (i) equilateral triangle (ii) square
36. Do as directed:
 (i) Find the ratio of 3 days to 40 hours
 (ii) Convert 4025 % into fraction.
 (iii) Convert $\frac{5}{16}$ into percentage.

37. Find the value of the following:

- (i) $(-5)^2$ (ii) $[(-2)^3]^2$ (iii) $\left(-\frac{2}{5}\right)^0$

SECTION-D

(4 X 5= 20)

38. (i) In what time will Rs. 1860 amount to Rs. 2278.50, if simple interest is calculated at 9% per annum?
 (ii) Convert the following into percentages.
 (a) 0.89 (b) $\frac{1}{5}$ (c) 3:4 (d) 12.67
39. Simplify: $\left(-\frac{6}{17}\right)^{-2} \times \left(\frac{17}{9}\right)^{-2} - \left(-\frac{3}{4}\right)^2 - \left(\frac{4}{3}\right)^2$
40. Construct a right angled triangle PQR with hypotenuse PR = 8 cm and QR = 7 cm. Draw the perpendicular bisector of the hypotenuse meeting it at O. With O as the centre and OP as the radius draw a circle. Does it pass through the other two vertices?
41. A piece of land is 240 m. long and 120 m. wide, has two roads in its centre of equal width 2.5 m. One road is parallel to length and other is parallel to its width. Find the area of roads and also find the cost of cementing the roads at the rate of Rs 100 per square metre.
42. (i) Find the value of $x^2 + y^2 + z^2 - xy - yz - zx$
 if $x = -1, y = \frac{1}{2}$ and $z = -3$
 (ii) The number of diagonals of a polygon of n sides is $\frac{n(n-3)}{2}$. Find the number of diagonals of a polygon of 15 sides.

SECTION B

16. Out of 720 people, 450 of them voted. What percentage of people voted?
17. Represent $\frac{3}{4}$ on the number line.
18. The product of two rational numbers is $\frac{-8}{9}$. If one of the rational number is $\frac{-17}{6}$, then find the other.
19. The circumference of a circle is 88 cm. Find its area.
20. Identify like terms.
 $-3a^2b, 4ab, 7ab^2, \frac{-2}{5}a^2b, -3b^2a, 9ba, -4a^2b^2, -7b^2a^2$
21. Add:
 $x + y - 7, y - x + 3, x - y + 4$
22. Express 216 as a product of powers of their prime factors.
23. Express in exponential notation.
(i) $a \times a \times a \times a \times b \times b \times a$
(ii) $5 \times 5 \times p \times p \times q \times q \times q$
24. Name two letters of the English alphabet which has vertical line symmetry.
25. What cross-section do you get when you give a vertical cut to
(i) a die (ii) a marble
26. Draw the net of a cuboid.

SECTION - C

(3X11=33)

27. A man borrowed Rs. 700000 from a bank for 3 years at 18% p.a. Find the interest and the amount he will have to pay after the stipulated time.
28. By selling an article for Rs. 4500, a man lost 25%. Find the cost price of the article.
29. Simplify: $\left(\frac{-14}{25} + \frac{1}{5}\right) - \left(\frac{2}{5} - \frac{1}{20}\right) + \left(\frac{-33}{25} \times \frac{50}{-66}\right)$
30. For what value of k , we have $7x^2 + (5 - k)x = -4$, given that $x = -2$
31. From the sum of $5x + 7y - 12$ and $3x - 5y + 2$ subtract the sum of $2x - 7y - 1$ and $-6x + 3y + 9$.
32. Construct ΔMAT in which $MA = 6$ cm, $AT = 5.5$ cm and $MT = 4.8$ cm. Draw a perpendicular TS from T to MA .