CLASS 6 SAMPLE PAPERS | MATHEMATICS | HALF YEARLY EXAMINATION

Time: 3 hrs

Max mark: 80

General Instruction

- Section A consists of 4 questions carrying 1 mark each.
- Section B consists of 16 questions carrying 2 marks each.
- Section C consists of 12 questions carrying 3 marks each.
- Section D consists of 2 questions carrying 4 marks each.

Section A

1. Smallest counting number is -------------------
2. What do you call a six sided polygon?
3. A ------------ is a chord passing through the centre of the circle.
4. The number of edges of a cuboid is --------------

Section B

5. Use the given digits without repetition and make the greatest and smallest 4 digit numbers.

5,4,0,3

6. Place commas correctly and write the numerals:

Fifty eight million four hundred twenty three thousand two hundred two.

7. A student multiplied 4365 by 45 instead of multiplying by 54.By how much was his answer greater than the correct answer?
8. Estimate: 6789 – 785
9. Write in Roman Numerals:
a) 2541
b) 442
10. Write the predecessor and successor of 10000.
11. Find:
a) $24 \times 6789 \times 4$
b) $125 \times 1245 \times 8$
12. Simplify:$122 \times 55 + 122 \times 45$
13. Write first five multiples of 9.
14. Express the following numbers as the sum of three odd primes:

a) 21

b) 31

15. Using divisibility tests, determine which of the following numbers are divisible by 6:

a) 1790184

b) 61233

16. Find the common factors of 20 and 28.

17. What fraction of a clockwise revolution does the hour hand of a clock turn through, when it goes from

a) 3 to 9

b) 6 to 3

18. Name the types of the following triangles:

    a) ΔPQR such that PQ = QR = PR = 6 cm

    b) ΔDEF with angle D = 90°

19. What shape is

a) Your instrument box.

b) A sweet laddu.

20. Write the number of faces and corners of a triangular pyramid.

Section C

21. The total population of a city is Rs 39765.If there are 19076 males, then find the number of females in the city?

22. Find the sum by suitable rearrangement

    a) 833 + 724 + 77 + 366

    b) 348 × 56 + 348 × 44

23. Find the value of 125 – (25 × 4 - 4× 15 ÷ 5)

24. Check whether the given numbers are divisible by 11?

a) 5312626

b) 9045463

25. A vendor supplies 32 litres of milk to a hotel in the morning and 68 litres of milk in the evening. If the milk costs Rs 45 per litre, how much money is due to the vendor per day?

26. Find using distributive property:

a) 675 × 101

b) 5432 × 1001

27. Draw a rough sketch of a quadrilateral KLMN .State,

a) Two pairs of opposite sides

b) Two pairs of opposite angles

c) Two pairs of adjacent angles

28. State true or false:

    a) Two diameters of a circle will necessarily intersect.

    b) The centre of a circle is always in its interior.

    c) Every chord of a circle is also a diameter.

29. How many right angles do you make if you start facing
a) South and turn clockwise to west.
b) North and turn anti clockwise to east.
c) South and turn to north.
30. Which of the following are models for perpendicular lines:
a) The adjacent edges of a table top.
b) The line segments forming the letter L.
c) The letter V
31. A square pyramid has a square as its base.

Write the number of faces, edges and corners?

32. Write the names for each of the following:
a) 3 sides of equal length
b) 2 sides of equal length
c) All sides are of different length.

Section D

33. Three boys step off together from the same spot. Their steps measure 63 cm, 70 cm and 77 cm respectively. What is the minimum distance each should cover so that all can cover the distance in complete steps?
34. Fill in the blanks with acute, obtuse ,right or straight:

a)An angle whose measure is less than that of a right angle is ------------

b) An angle whose measure is greater than that of a right angle is -----------

c) When the sum of the measures of two angles is that of a right angle, then each one of them is ----------

d) An angle whose measure is the sum of the measures of two right angles is ------------

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Answers:

1. One
2. Hexagon
3. Diameter
4. 12
5. Greatest number – 5430

Smallest number – 3045

6. 58,423,202.
7. 4365 x 45 = 196425

4365 x 54 = 235710

Difference = 235710 – 196425 = 39285

8. 6789 rounds off to 6800

785 rounds off to 800

Difference = 6800 – 800 = 6000

9. a) 2541 = MMDXLI
    b)442 = CDXLII

10. Predecessor of 10000 is 10000 – 1 = 9999
Successor of 10000 is 10000 + 1 = 10001

11). a) (25 x 4)x 6789 = 100 x 6789 = 678900
b) (125 x 8) x 1245 = 1000 x 1245 = 1245000

12. 122 x (55 + 45) = 122 x 100 = 12200

13. Multiples of 9 are 9, 18, 27, 36, 45.

14. a) 21 = 3 + 7 + 11
b) 31 = 19 + 7 + 5

15. a) 1790184
Since the given number is an even number, it is divisible by 2.
Sum of the digits = 1 + 7 + 9 + 0 + 1+8+4 = 30, which is a multiple of 3.So it is divisible by 3.
So the given number is divisible by 6.
b)61233
Since the given number is an odd number, it is not divisible by 2.
So the given number is not divisible by 6.

16. Factors of 20 are 1, 2, 4,5,10, and 20.
Factors of 28 are 1, 2, 4, 7, 14and 28.
So the common factors are 1,2 and 4

17. a) $\frac{1}{2}$ revolution
b) $\frac{3}{4}$ revolution.

18. a) Equilateral triangle.
b) Right angled triangle.

19. a) Cuboid.

b) Sphere.

20. A triangular pyramid has 4 faces and 4 corners.

21. The total population of a city = 39765

Number of males = 19076

Number of females = 39765 – 19076 = 20689

22. a) (833 + 77) + (724 + 366) = 910 + 1090 = 2000
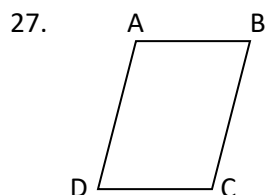
b) 348 x (56 + 44) = 348 x 100 = 34800

23. Use BODMAS

$125 - (25 \times 4 - 4 \times 15 \div 5) = 125 - (25 \times 4 - 4 \times 3) = 125 - (100 - 12) = 125 - 88 = 37$

24. a) Sum at odd places = 6 + 6+ 1 + 5 = 18

Sum at even places = 2 + 2 + 3 = 7

Difference = 18 – 7 = 11, which is a multiple of 11.

So the given number is divisible by 11.

b)Sum at even place s = 3 + 4 + 4 +9 = 20

Sum at odd places = 6 + 5 + 0 = 11

Difference= 20 – 11 = 9, which is not a multiple of 11.

So the given number is not divisible by 11.

25. The amount of milk supplied in the morning = 32 litres

Milk supplied in the evening = 68 litres

Cost of milk per litre = Rs 45.

The money due to the vendor per day = 45 x (32 + 68) = 45 x 100 = Rs 4500

26. a) 675 x 101 = 675 x (100 + 1) = 675 x 100 + 675 x 1 = 67500 + 675 = 68175

b) 5432 x 1001 = 5432 x (1000 + 1) = 5432 x 1000 + 5432 = 5432000 + 5432 = 5437432

27.

a)   Opposite sides are AB and CD

AD and BC.

b) Opposite angles are angle A and angle C
   B and D.
c) Adjacent angles are angle A and B
   angle C and D.

28. a) True
b) True
c) False

29. a) One
b) Three
c) Two

30. a) and b) are models for perpendicular lines.

31. A square pyramid has number of faces = 5
Edges = 8
Corners = 5

32. a) Equilateral Triangle
b) Isosceles Triangle.
c) Scalene Triangle.

33. Here we have to find out the LCM of these numbers.

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 2 | 63   70   77
   |_____
 3 | 63   35   77
   |_____
 3 | 21   35   77
   |_____
 7 | 7    35   77
   |_____
 5 | 1    5    11
   |_____
11 | 1    1    11
   |_____
     1    1    1
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   LCM = 2 X 3 X 3 X 7 X 5 X 11 = 6930

34.a) Acute angle

b) Obtuse angle

c) Acute angle

d) Straight angle

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