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Time allowed: **3 hours;** Maximum marks: **90**

<u>**General Instructions:**</u>

a) All Questions are compulsory
b) The Question Paper consists of 42 Questions divided in to four sections A, B, C and D
c) Section- A comprises of 15 questions of one mark each
d) Section- B comprises of 11 questions of two mark each
e) Section- C comprises of 11 questions of three mark each
f) Section- D comprises of 5 questions of Four mark each
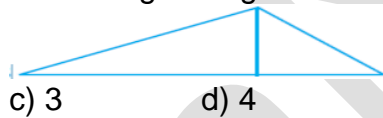g) The use of calculator is not permitted.

<u>Section–A</u>

<u>**Fill In The Blanks:**</u>

1. An angle whose measure is less than that of a right angle is_____.

2. The line segment that connects the center to a point on the circle is called _____.

3. The greatest prime factor of 35 is _____.

4. The smallest composite number is _____.

5. There are _____ natural numbers between 32 and 48.

6. _____ is the greatest possible 4 digit number can be formed using 4, 9, 6 and 0 without repetition.

7. The temperature of Shimla is $3°\,C$ below $0°\,C$. Write this temperature in the form of integer in this blank. _____ .

<u>**Choose The Correct Answer:**</u>

8. 21,33,57 and 102 is divisible by _____

    a) 4   b) 5   c) 6   d) 3

9. The correct ascending order for 4567,4352,4434,4002 is _____.
    a) 4352,4434,4002,4567   b)   4002,4352,4567,4434

    c) 4002,4352,4434,4567   d)   4434,4352,4002,4567

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10. A line which joins two points on the circle and also passes through the center of the circle is called _____.
   a) Radius   b) Diameter   c) Cord   d) None of these

11. $(-3)-4$ _____ $(-3) + (-5)$.
   a) >   b) <   c)=   d) None of these.

12. Take Sara's age to be y. her grandmother's age is 6 times of her age. What is her grandmother's age?
   a) 6y   b) 6 – y   c)6 + y   d) 6y + 6

13. The common factor of 88 and 1331 is _____
   a) 8   b) 11   c) 2   d)22

14. Where will the hour hand of a clock stop if it starts from 7 and turns through 2 right angles?
   a) 1   b) 12   c) 9   d) 3
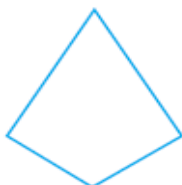
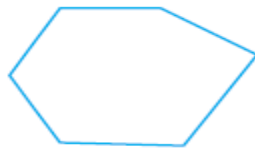15. How many triangles are there in the given figure?

   a) 1   b) 2   c) 3   d) 4

Section - B

16. Draw a straight line to show P is the mid-point of $\overline{AB}$ and B is the mid-point of $\overline{PD}$. Say why AP = BD.

17. How many right angles do you make if you start facing
   a) North and turn clockwise to west?
   b) South and turn anti-clockwise to east?

18. Given that PQRS is the quadrilateral, write down the name of its four interior angles.

19. Name each polygon:
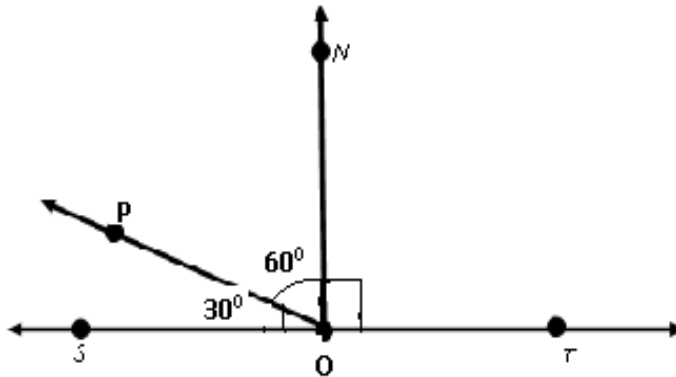

(a)   (b)   (c)   (d)

20. Write down separately the prime and composite numbers less than 15?

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21. Write down all prime factors of 2150?

22. Mangoes are to be transferred from larger boxes into smaller boxes. When a Large box is emptied, the mangoes from it fill two smaller boxes and still 10 mangoes remain outside. If the number of mangoes in a small box are taken to be *x*, what is the number of mangoes in the larger box?

23. Give expressions in the following cases:
    a) *m* is multiplied by – 8 and then 3 is added to the result
    b) *p* is multiplied by 9 and the result is subtracted from 16

24. Write the numbers in their expanded form:
    a) 475325
    b) 9087671

25. A box contains 3, 00,000 medicine tablets each weighing 20 mg. What is the total weight of all the tablets in the box in grams and in kilograms?

26. Virat is a famous cricket player. He has so far scored 6780 runs in test matches. He wishes to complete 10,000 runs. How many more runs does he need?

Section –C

27. Find the value of the following using distributive property:
    a) 824 × 10001
    b) 4351 × 1002

28. In this given figure:

    a) Angle PON is a/an _____ angle.
    b) Angle NOT is a/an _____ angle.
    c) Angle POT is a/an _____ angle.

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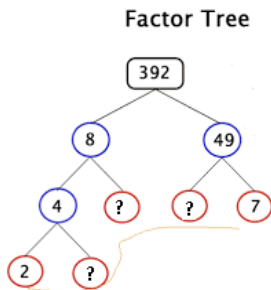29. Write in Roman Numerals:
   a) 68
   b) 93
   c) 58

30. A vendor supplies 38 liters of milk to a hotel in the morning and 72 liters of milk in the evening. If the milk costs Rs 48 per liter, how much money is due to the vendor per week?

31. Using divisibility tests, determine which of the following numbers are divisible by by 3; by 4; by 6(say, yes or no)
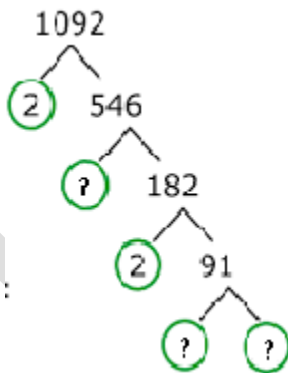
Numbers	Divisible by		
	3	4	6
23454			
8706214			

32. Write down the missing numbers in factor tree.

   a)

Factor Tree

   b)

_____

_____

33. Draw a Rectangle MNOP. State,
    (a) Two pairs of opposite sides,
    (b) Two pairs of opposite angles,
    (c) Two pairs of adjacent sides,
    (d) Two pairs of adjacent angles.
    (e) Is Rectangle MNOP a parallelogram? Give reason.

34. Draw any circle and mark
    (a) Itscenter   b) Aradius
    c) A diameter   d) A sector
    (e) A segment   (f) A point in its interior

35. Give two examples for each 3-D shape from your daily life.
    a) Cylinder
    b) Sphere
    c) Cone

36. Following is the list of temperatures of three places in India on a particular day of the year. Use the table to answer the following question:

Name of the city	Temperature
Siachin	$8°C$ below $0°C$
Kargil	$30°C$ below $0°C$
Drass	$22°C$ below $0°C$

   a) Plot the name of the city on number line against its temperature.
   b) Which is the hottest place among these three places?
   c) Which is the coolest place among these three places?

37. Draw a number line and answer the following :
    a) Which number will we reach if we move 7 numbers to the right of – 2?
    b) Which number will we reach if we move 5 numbers to the left of (-1).
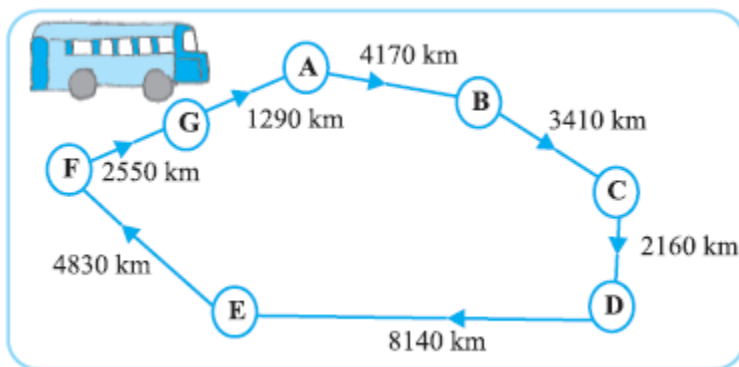   c) If we are at – 7 on the number line, in which direction should we move to reach 13?

Section–D

38. Calculate and answer the following questions:
    a) (-33) + 81 – (-421)
    b) 51 – (-42) + (-31)
    c) 14 – (-200) + (-314)
    d) 678 – (-760) – (654)

39. Complete the following table:

Quadrilaterals	Opposite side		All side equal	Diagonals	
	Parallel	Equal		Equal	Perpendicular
Parallelogram	Yes			No	No
Rectangle		Yes	No		No
Rhombus		Yes		No	Yes
Square	Yes			Yes	

40. A merchant had 280000 with him. He placed an order for purchasing 28 smart phones at Rs. 8400 each. How many more smart phones he could have purchase with the amount he had?

41. The cost of 12 dozen banana is 720. Abhisek has Rs.1500 with him. He wants to distribute one banana to each person on the street. How many bananas can he buy? Mention the value you depict from this act of Abhisek?

42. A bus started its journey and reached different places with a speed of 80 km/hour. The journey is shown below:

a) Find the total distance covered by the bus from B to E.
b) Find the total distance covered by the bus from E to A.
c) Find the total distance covered by bus if it starts from A and returns back to A.
d) Find out the time take by bus to reach from D to G.