Annual Assessment - March 2017
Mathematics
Class-8

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Maximum Marks: 80   Time: 150 Minutes

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**Instructions:**

- All questions are compulsory.
- Marks are given in front of each question.

1. A square can be called as   1
   (a) A Rectangle   (b) A rhombus
   (c) A trapezium   (d) All of above

2. What can be the unit digit of the squares of a number   1
   (a) 2   (b) 5
   (c) 7   (d) 3

3. $(a-b)^2$ can be written as   1
   (a) a^2+b^2+2ab (b) a^2-b^2-2ab
   (c) a^2-b^2+2ab (d) a^2+b^2-2ab

4. Additive inverse of $\frac{-5}{9}$ is   1
   (a) $\frac{5}{9}$ (b) $\frac{-9}{5}$
   (c) $\frac{9}{5}$ (d) $\frac{9}{-5}$

5. The coordinates of origin are   1
   (a) $(\frac{5}{9}, \frac{9}{5})$ (b) (1, 1)
   (c) (0, 0)   (d) (1, 0)

6. If y+3 = -8, then the value of y is   1
   (a) 5   (b)-5
   (c) 11   (d) -11

7. $X^8 \div x^2$ can be written as   1
   (a) x^4 (b) x^{10}
   (c) x^6 (d) 4

8. Central angle of pie chart is   1
   (a) 180°   (b) 60°
   (c) 90°   (d) 360°

9. Standard form of the number 0.0001038 is   1
   (a) 1038   (b) 1.0×10^{-4}
   (c) 1.038×10^4 (d) 1.038×10^{-4}

10. The population of a country and the area of land per person is in   1
    (a) Direct proportion   (b) Inverse proportion
    (c) Neither (a) nor (b)   (d) Both (a) and (b)

11. A coin is flipped to decide which team starts the game what is the probability that your team will start   1

    (a) 1   (b) $\frac{1}{4}$

    (c) 2   (d) $\frac{1}{2}$

12. The coefficient of x^2 in $3x^2y^3$ is   1
    (a) 3   (b) 3y
    (c) $3y^3$ (d) 3xy

13. How many measurements can determine a quadrilateral uniquely?   1
    (a) five   (b) four
    (c) six   (d) two

14. The Value of $8^3 \div 2^3$ 1
    (a) 4   (b) 64
    (c) 16   (d) 32

15. From the following, which is three dimensional.   1
    (a) rectangle   (b) cylinder
    (c) Triangle   (d) circle

16. Represents the rational number $\frac{-3}{2}$ on number line.   2

17. Solve the equation   2
    2x-1 = 14-x

18. Find the probability to get a head, when a coin tossed once.   2

19. Draw a square of side 4.5 cm.   2

20. There are 15 boys in a class of 40 students'. Find the ratio of the number of boys to the number of girls   2

21. Subtract :   2
    $5xy+3yx^2$ from $4x^2y-3xy+4-2y^2$

22. The adjoining pie chart gives the marks scored in an examination by students in Hindi, English, Science, Sanskrit and Mathematics respectively. If total marks obtained by student were 720. Then students obtained how many marks in mathematics.   2
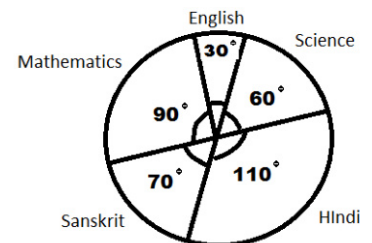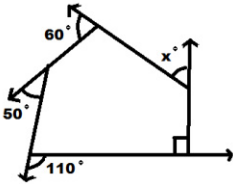

23. Find the number of faces, it is given that number of vertices are 6 and number of edges are 12, using Euller's formula.   2

24. Simplify $(\frac{1}{2})^{-5}$ 2

25. Find the value of letters in the following   2

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   3 A
 + 2 5
 ───────
   B 2
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26. Find six rational number between -1 and 1   3

27. Find x in the given figure   3

28. Construct a rhombus BEND where BN = 5.6 cm and ED = 6.5 cm   3

29. Find the cube root of 10648 by prime factorisation method.   3

30. Find compound interest paid when a sum of Rs. 60,000 invested for one year at 12% annum compound half yearly.   3

31. Factories $P^4 - 81$ 3

32. A farmer has enough food to feed 20 animals in his cattle for six days. How long would food last if there were 10 more animals in his catcle?   3

33. To makes a cuboid of sides 5 cm, 2 cm, 5 cm. How much such cuboids will be need to form a cube?   3

34. If 24x is a multiple of 3, where x is a digit, what is the value of x?   3

35. Write the coordinates of the points A, B and C from the given figure.   3
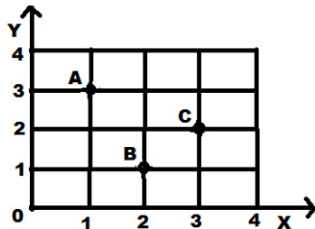
36. Find the least number which must be subtracted from the 3251 so as to get a perfect square. Also find the square root of the perfect square so obtained   5

37. Solve the following   5

(a+b) (2a-3b+c) – (2a-3b) c

38. There are two closed boxes as shown in figure. Which box requires the lesser amount of material to make?   5