

Summative Assessment-1(2016-17)

Subject - Mathematics

Class-VIII

Section-A

1. Find the sum of $7/11$ and $-3/11$.
2. Express 0.00078 in the standard form.
3. Without adding find the sum of
 $1 + 3 + 5 + 7 + 9 + 11$
4. Evaluate $(1\frac{3}{5})^2$
5. Find the value of x for which the number $x103$ is divisible by 9.
6. Subtract $(2a^2b + 4a)$ from $(6a - 2a^2b)$.
7. Find the product of $4a$, $-3a^2b$ and $4ab^2$
8. How many edges are there in a square pyramid?
9. How many vertices are there in a triangular prism?
10. Two coins are tossed simultaneously. What are all possible outcomes?

Section B

11. What number should be added to $-5/4$ to get $7/9$.
12. Find the value of x
 $(7/9)^{-5} \times (7/9)^{4x} = (7/9)^7$
13. Evaluate: $\sqrt[3]{4096}$
14. In a two digit number, the unit digit is four times the tens digit and the sum of the digit is 10. Find the number.
15. If $x + \frac{1}{x} = 5$ Find $x^2 + \frac{1}{x^2}$.
16. Factorise $ax^2 + by^2 + bx^2 + ay^2$
17. Verify Euler's formulae for cuboids.
18. A die is thrown. What is the probability of getting
 - a) A composite number?
 - b) A number less than 5?

Section C ✓ - ③ marks

19. In a school $\frac{4}{7}$ of the students are girls. If there are 900 boys find the number of girls in the school.
20. By what least number should 6300 be divided to get a perfect square? Find the number whose square is the new number.
21. Find the value of the expression $(25x^2 + 20x + 4)$ when $x=6$.
22. Factorize $k^2 - 4k - 77$.
23. Solve $\frac{3x-5}{2x} = \frac{4}{5}$
24. What is the sum of all interior angles of a regular
- a) Pentagon?
 - b) Hexagon?
25. The angles of a quadrilateral are in the ratio 3:4:5:6. Find the measure of each of these angles.
26. Construct a quadrilateral ABCD in which $AB=4.2$ cm $BC=4$ cm $CD=4.4$ cm $AD=5$ cm and $\angle B = 70^\circ$.
27. The weights (in kg) of 30 persons are given below:

~~51, 42, 45, 47, 42, 65, 42, 46, 63, 47, 52, 51, 41, 49, 53, 64, 57, 54, 67, 54, 62,~~
~~66, 60, 49, 51, 39, 44, 55, 64, 58~~

Prepare a frequency distribution table taking equal class size (one such class is ~~40-45~~, where 45 is not included)
35-40

28. A bag contains 6 white, 7 red and 3 green balls. One ball is drawn at random. What is the probability that the ball drawn is
- a) red?
 - b) green?
 - c) A white or red?

Section D ✓ ④ - marks

29. Evaluate the following

- a. $(1/2)^{-3} + (1/4)^{-2} + (1/3)^{-2}$
- b. $(3/4)^{-2} \times (-7/3)^{-2}$

30. Find the square root of

- a) 17956
- b) $625 / 256$

31. Find the quotient and remainder when we divide

$$8x^3 + 8x^2 + 6x + 5 \text{ by } 2x + 3$$

32. Factorize the following

a. $6x^2y - 6xy^2 + 3xy^2 + 3x^2y$

b. $3y^2 + 14y + 8$

33. Two numbers are such that the ratio between them is 3:5. If each is increased by 10 the ratio between the new numbers so formed is 5:7. Find the original numbers.

34. Construct a rhombus the lengths of whose diagonals are 7cm and 8cm.

