



ITL Public School

Summative Assessment 1(2014-15)

Date: 16.09.2014

Class:VIII

Mathematics (Set -A)

Time: 3 hrs

M.M : 90

General Instructions:

1. Read the question paper carefully and answer legibly.
2. All questions are compulsory.
3. The question paper consists of 31 questions divided into four sections A, B, C and D.
4. Section A comprises of 4 questions of 1 mark each, Section B comprises of 6 questions of 2 marks each, Section C comprises of 10 questions of 3 marks each and Section D comprises of 11 questions of 4 marks each.
5. Use of calculators is not permitted.

Section A

- Q.1 Write the rational numbers that are their own reciprocals. 1
- Q.2 If $\frac{4x}{3} + \frac{7}{6} = \frac{15}{2}$, then find the value of x . 1
- Q.3 Find the number of diagonals of an octagon. 1
- Q.4 How many numbers lie between the squares of the numbers 85 and 86? 1

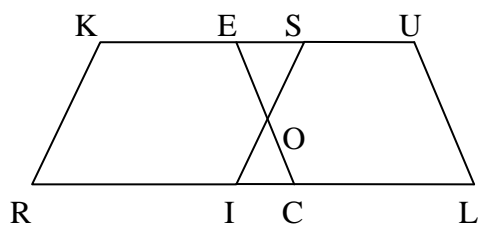
Section B

- Q.5 Find the sum of the multiplicative inverse and the additive inverse of $-\frac{3}{5}$. 2
- Q.6 Solve the equation: $\frac{0.2y-6}{1.1y-1} = \frac{2}{5}$ 2
- Q.7 The sum of two angles of a quadrilateral is 145° . The other two angles are in the ratio 2 : 3. Find these angles. 2
- Q.8 Construct a frequency distribution table for the data on marks of 20 students of a class using intervals 30 – 35, 35 – 40 and so on. 2
40, 38, 33, 48, 47, 33, 31, 46, 34, 36, 49, 41, 36, 49, 49, 42, 44, 47, 38, 39
- Q.9 A welfare association collected Rs.122500 as donation from the residents. If each paid as many rupees as there were residents, find the number of residents. 2
- Q.10 Find the smallest number that should be multiplied by 6750 to get a perfect cube. 2

Section C

- Q.11 Using the properties of rational numbers, find $\frac{5}{48} + \frac{3}{8} \times \left(-\frac{2}{9}\right) - \frac{3}{8} \times \frac{5}{3}$. 3
- Q.12 The sum of three consecutive multiples of 9 is 378. Find the multiples. 3

- Q.13 RISK and CLUE are parallelograms,
 $\angle RKE = 110^\circ$ and $\angle CLU = 80^\circ$.
 Find $\angle EOS$.



- Q.14 Construct a Rectangle CAKE, where $CA = 7.2$ cm and $KA = 5.1$ cm. 3

- Q.15 Solve for x : $\frac{(x-5)}{4} - \frac{(x+4)}{3} = 1 + \frac{x+7}{6}$ 3

- Q.16 Construct a quadrilateral FONT, where $FO = 3$ cm, $ON = 4.5$ cm, $NT = 3.8$ cm, $TF = 4.3$ cm and $FN = 6$ cm. 3

- Q.17 The number of workers in various age groups in a town is given in the following table:

Age group (in years)	0-10	10-20	20-30	30-40	40-50	50-60
No. of persons (in 1000s)	40	50	75	65	60	40

Represent the above information on a histogram.

- Q.18 Find the least square number, exactly divisible by each one of the numbers 8, 10, 12 and 15. 3

- Q.19 A farmer had enough food to feed 15 cows for 60 days. Due to unhealthy conditions, few cows died and the food lasted for 75 days. Find the number of cows that died. 3

- Q.20 Find the least number which must be added to 37460 to make it a perfect square. Also find the square root of the number so obtained. 3

Section D

- Q.21 (a) Represent $-\frac{8}{5}$ on the number line.

- (b) Find two rational numbers between $\frac{-1}{2}$ and $\frac{-1}{3}$. 4

- Q.22 One of the digits of a two digit number is twice the other digit. The sum of the original number and the number formed by reversing the digits is 99. Find the number. 4

- Q.23 (a) Is it possible to have a regular polygon with a measure of each exterior angle as 14° ? Why?
 (b) Can it be an interior angle of a regular polygon? Explain. 4

- Q.24 Construct a quadrilateral PLAN with $PL = 4$ cm, $LA = 6.5$ cm, $\angle P = 90^\circ$, $\angle A = 110^\circ$, $\angle N = 85^\circ$. 4

- Q.25 Numbers 1 to 18 are written on fifteen separate slips are kept in a box and mixed well. One slip is chosen from the box without looking into it. What is the probability of : 4

- (a) Getting a number greater than 0?
 (b) Getting a number less than 6?
 (c) Getting a number greater than 12?
 (d) Getting a 2-digit number?

- Q.26 A girl distributed some sweets on her birthday. The half of the sweets she had were distributed in her school and three-fourth of the remaining were distributed in the bus. The rest 40 were distributed among the poor children living in the slums. Find the number of sweets she had. What quality of the girl is depicted by this act of hers? 4

- Q.27 If 2.5 kg of rice contains 6×10^8 grains of rice, find:
(a) the grains contained in 4 kg of rice?
(b) the quantity of rice that contains 1.2×10^9 grains? 4

Q.28 The production of agricultural products of a state are as under:

Agricultural Products	Production in thousand quintals
Wheat	800
Rice	700
Cotton	500
Maize	400

Represent the above data on a pie chart.

4

- Q.29 Five persons could fit new windows in a house in 8 days.
(a) One of the persons fell ill before the work started. How long would the job take now?
(b) How many persons would be needed to fit the window in two days? 4

Q.30 Construct a Rhombus whose diagonals are 5.2 cm and 6.4 cm long. 4

- Q.31 (a) The volume of a cubical box is 32.768 cubic meters. Find the length of a side of the box.
(b) Simplify: $\sqrt[3]{-2300 \times 5290}$. 4