



TEST PAPER: MATHEMATICS

Time: 50 Minutes

Class: 8th C.B.S.E.

Max. Marks: 30 Marks

Date: 28th March, 2018

Marking Scheme: Three questions carry 10 marks each. Question 1 has 10 MCQ's of 1 mark each. Questions 2 and 3 have 3 subparts each. Subparts (a) and (b) carry 3 marks each and subpart (c) carries 4 marks.

Question 1:

- A number which can be expressed as $\frac{p}{q}$ where p and q are integers and $q \neq 0$ is
 - natural number.
 - whole number.
 - integer.
 - rational number.
- A number of the form $\frac{p}{q}$ is said to be a rational number if
 - p and q are integers.
 - p and q are integers and $q \neq 0$
 - p and q are integers and $p \neq 0$
 - p and q are integers and $p \neq 0$ also $q \neq 0$.
- The numerical expression $\frac{3}{8} + \frac{(-5)}{7} = \frac{-19}{56}$ shows that
 - rational numbers are closed under addition.
 - rational numbers are not closed under addition.
 - rational numbers are closed under multiplication.
 - addition of rational numbers is not commutative.
- Which of the following is not true?
 - rational numbers are closed under addition.
 - rational numbers are closed under subtraction.
 - rational numbers are closed under multiplication.
 - rational numbers are closed under division.
- If x be any rational number then $x + 0$ is equal to
 - x
 - 0
 - $-x$
 - Not defined
- The reciprocal of 1 is
 - 1
 - 1
 - 0
 - Not defined
- The reciprocal of -1 is
 - 1
 - 1
 - 0
 - Not defined
- The reciprocal of 0 is
 - 1
 - 1
 - 0
 - Not defined
- The additive inverse of $\frac{-7}{19}$ is
 - $\frac{-7}{19}$
 - $\frac{7}{19}$
 - $\frac{19}{7}$
 - $\frac{-19}{7}$
- Multiplicative inverse of a negative rational number is
 - a positive rational number.
 - a negative rational number.
 - 0
 - 1

Question 2:

a. Name the property used in the following:

(i) $-\frac{7}{11} \times \frac{-3}{5} = \frac{-3}{5} \times \frac{-7}{11}$

(ii) $-\frac{2}{3} \times \left[\frac{3}{4} + \frac{-1}{2} \right] = \left[\frac{-2}{3} \times \frac{3}{4} \right] + \left[\frac{-2}{3} \times \frac{-1}{2} \right]$

(iii) $\frac{1}{3} + \left[\frac{4}{9} + \left(\frac{-4}{3} \right) \right] = \left[\frac{1}{3} + \frac{4}{9} \right] + \left[\frac{-4}{3} \right]$

[3]

b. Simplify using distributive property of multiplication: $\left(\frac{1}{2} \times \frac{1}{2} \right) + \left(\frac{1}{2} \times \frac{3}{4} \right)$

[3]

c. Find 3 rational numbers between $\frac{1}{2}$ and $\frac{3}{4}$.

[4]

Question 3:

a. Find the sum of additive inverse and multiplicative inverse of -7

[3]

b. Show the following numbers on a number line: $2\frac{2}{3}$, $1\frac{3}{4}$

[3]

c. True or False:

1. The negative of a negative rational number is always a _____ rational number.

2. The numbers _____ and _____ are their own reciprocal.

3. The reciprocal of $\frac{-5}{7}$ is _____.

4. The multiplicative inverse of $\frac{4}{3}$ is _____.

[4]