# TEST PAPER: MATHEMATICS

**Time: 50 Minutes** **Class: 9th 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:**

**1.** From the choices given below mark the co-prime numbers

(a) 2, 3
(b) 2, 4
(c) 2, 6
(d) 2, 110

**2.** A rational number equivalent to $\frac{5}{7}$ is

(a) $\frac{15}{17}$
(b) $\frac{25}{27}$
(c) $\frac{10}{14}$
(d) $\frac{10}{27}$

**3.** For rationalising the denominator of the expression $\frac{1}{\sqrt{12}}$ we multiply and divide by

(a) $\frac{1}{\sqrt{12}}$
(b) 12
(c) $\sqrt{2}$
(d) $\sqrt{3}$

**4.** Given a rational number $-\frac{5}{9}$. This rational number can also be known as

(a) a natural number
(b) a whole number
(c) a fraction
(d) a real number

**5.** On simplifying $(\sqrt{5}+\sqrt{7})^2$, we get

(a) 12
(b) $\sqrt{35}$
(c) $\sqrt{5}+\sqrt{7}$
(d) $12+2\sqrt{35}$

**6.** If the decimal representation of a number is non-terminating, non-repeating, the number is

(a) a natural number
(b) a rational number
(c) a whole number
(d) an irrational number

**7.** On dividing $6\sqrt{27}$ by $2\sqrt{3}$, we get

(a) $3\sqrt{9}$

(b) 6

(c) 9

(d) none of these

**8.** A rational number between $\frac{1}{7}$ and $\frac{2}{7}$ is

(a) $\frac{1}{14}$

(b) $\frac{2}{21}$

(c) $\frac{5}{14}$

(d) $\frac{5}{21}$

**9.** The number 1.101001000100001... is

(a) a natural number

(b) a whole number

(c) a rational number

(d) an irrational number

**10.** On adding $2\sqrt{3}$ and $3\sqrt{2}$, we get

(a) $5\sqrt{5}$

(b) $5(\sqrt{3}+\sqrt{2})$

(c) $2\sqrt{3}+3\sqrt{2}$

(d) none of these

**Question 2:**

a. Express 0.272727…. in the simplest form of p/q [3]

b. Find a rational number lying between (i) 0.75 and 1.2 (ii) -3/4 and-2/5 [3]

c. Represent each number on separate number lines 8/3, √10 [4]

**Question 3:**

a. Find the largest number that divides 650 and 1170 using Euclid's algorithm. [3]

b. Simplify the following:

i. $(2\sqrt{3} - 3)(\sqrt{2} + 2\sqrt{3})$

ii. $(3\sqrt{2} - \sqrt{5})^2$ [3]

c. Express 0.36363636….. in the simplest form of p/q [4]