TEST PAPER: MATHEMATICS

Time: 50 Minutes   **Class:** 9th I.C.S.E.

Max. Marks: 30 Marks   **Date:** 25th April, 2018

Marking Scheme: *Three questions carry 10 marks each. Questions have 3 subparts each. Subparts (a) and (b) carry 3 marks each and subpart (c) carries 4 marks.*

Question 1:

a. Convert 0.7777… into rational fraction.

b. Rationalise:
$$\frac{1}{\sqrt{2} - \sqrt{3}}$$

c. Without actual division, find which of the following fractions are a) terminating decimals, b) Non-terminating, recurring decimals: (Also state the reason for each)
   (i)   54/60
   (ii) 48/55
   (iii) 44/63
   (iv) 115/640

Question 2:

a. Express $4.\overline{52}$ as a rational number (p/q form).

b. Find out two rational numbers lying between -3 and -2 using the formula method.

c. Find out two rational numbers lying between – 1/3 and 1/2 using the mean method.

Question 3:

a. Find out ten rational numbers lying between 7/3 and 4/2 using the L.C.M. method.

b. Arrange 3/5, 2/3, 4/5 and 5/6 in ascending order.

c. Simplify and evaluate the following:
   (i) $(2+\sqrt{3}) \times (\sqrt{2}-\sqrt{3})$
   (ii) $(1-\sqrt{5})^2$