141. If the atomic mass were given by as $1/6^{th}$ part by mass of one atom of C^{12} isotope, what would be the molecular mass of water?

(A) 18   (B) 9   (C) 36   (D) Unpredictable

142. Assuming that 1, 3, 5-hexatriene has only pure double bonds and pure single bonds, how many grams of it contain one mole of double bonds?

(A) 13.3 g   (B) 26.7 g   (C) 40 g   (D) 80 g

143. In an experiment, it is found that 2.0769 g of pure X produces 3.6769 g of pure X_2O_5. The number of moles of X is:

(A) 0.04   (B) 0.06   (C) 0.40   (D) 0.02

144. The volume occupied by 20 g water at 1.2 atm and 4°C is about:

(A) 20 mL

(B) $\dfrac{20 \times 0.082 \times 227}{18 \times 1.2}$ L

(C) $\dfrac{20 \times 0.082 \times 4}{18.1.2}$ L

(D) 20 L

145. Two isotopes of an element Q are Q^{97} (23.4% abundance) and Q^{94} (76.6% abundance). Q^{97} is 8.082 times heavier than C^{12} and Q^{94} is 7.833 times heavier than C^{12}. What is the average atomic weight of the element Q?

(A) 83.702   (B) 78.913   (C) 90.298   (D) 94.695

146. The O^{18}/O^{16} ratio in some meteorites is greater than that used to calculate the average atomic mass of oxygen on earth. The average mass of an atom of oxygen in these meteorites is _____ that of a terrestrial oxygen atom?

(A) equal to   (B) greater than   (C) less than   (D) None of these