SAMASEERKALVI – 9th STD

THEORY OF SETS

SECTION II

Time: 60 minutes] [15 X 2 = 30

NOTE: Answer all questions:

1. Which of the following are not sets:
   i) Collection of whole numbers less than zero.
   ii) Collection of beautiful pictures.
   iii) Collection of even prime numbers.
   iv) Collection of good movies.
2. Represent P = {x : x is a number divisible by 7 and less than 35} in roster form.
3. Represent M = {0, 1, 2, 3, 4, 5, 6, 7} in set – builder form.
4. Represent the set of positive cubes less than 250 in set – builder form and roster form.
5. Write the power sets of X = {a, d, f}.
6. Write all the improper subsets of Y = {m, n, o, p, q, r, s, t}.
7. Is $\Phi \neq \{\Phi\}$, Why?
8. If n [P (A)] = 128, then find n(A).
9. If A = {1, 2, 3, 4, 5, 6} and B = {3, 4, 7, 8, 10, 15}. Check A Δ B.
10. If P = {x : x $\in W$ } and Q = {x : x $\in N$ } then find P $\cap$ Q.
11. Represent (PUQ) in the Venn diagram if P = {3, 6, 9, 11, 13} and Q = {4, 9, 16, 25}.
12. Represent (AUB) and (AUB)' in a Venn diagram.
13. In a class of 50 students, 27 students study Tamil and 30 study Tamil and rest study both. Find the number of students who study both.
14. Draw Venn diagram (A$\cap$B)' and (A' U B).
15. If U = {p, q, r, s, t, x, y, z, 1, 2, 3, 4, 5}and A = {s,t,r,x,y,z,1,5}, then find n(A)

ÐÐÐ ***ALL THE BEST*** ÐÐÐ