PENACH INTERNATIONAL SCHOOL FURTHER MATHEMATICS SS 1 AND SS2 THEORY EXAM QUESTIONS

1. a. Distinguish between a compound statement and a simple statement.

b. write on the following and give the constant truth table of them.

i. conjunction ii. Disjunction iii. Conditional statement iv. Biconditional statement. V. negation

2. a. draw the truth table of the following I. ($P \vee Q$) II. $P \vee (Q \wedge R)$ III. ($P \vee Q$) ^ R

3. State six (7) laws of indices with three examples each.

4. Give 6 laws of logarithm and simplify the following: (i). Log 64^2 in base 4 – log 16^2 in base 2 (ii) log 25 + log 4

5. In a class containing 32 students, a student can either doGovernment or History or both. If 16 students do Government,18 students do history and 3 do none of the subjects, fine howmany do both.

6 Define the following (i). Equal set (ii). Complement of a set (iii). Empty set (iv). Subset. V. Disjoint set. Vi. Finite set vii. Infinite set