B.Sc. 2nd Semester
Discrete Mathematics
Paper Code-C4

1. Find the solution for the recurrence relation $a_{n+2}=a_{n+1}+a_n$;n>=0, $a_0=0$m,$a_1=1$
2. Prove that using mathematical induction , 1.2+2.3+3.4+….+n(n+1)=n(n+1)(n+2)/3
3. i) In how many ways can a committee of 3 girls and 4 boys be formed from 8 girls and 7 boys? ii) What will be the number of ways, if Ms.X refuses to be a member of the committee when Mr.Y is a member of the same?
4. Simplify $(p \rightarrow q) \vee \sim(p \leftrightarrow q)$
5. Show that all positive integer n, $3.5^{2n+1} + 2^{3n+1}$ is divisible by 17
6. Prove that $(\sim p \rightarrow (\sim p \rightarrow (\sim p \wedge q))) = p \vee q$

Send answer script to Mail Id- kncontai@gmail.com