King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics
Math-102   Semester-153   QUIZ 05

NAME: Serial No.   ID:
Maximum Marks: 10   Section: 04   Time Allowed: 30 minutes

(1) Find the sum of the series $\sum_{n=1}^{\infty} \frac{2^{n-1}+1}{8^{n-1}}$.

(2) Use the integral test to determine whether the series $\sum_{n=1}^{\infty} \frac{1}{n^2-4n+5}$ is convergent or divergent.

(3) Investigate the convergence of the series $\sum_{n=1}^{\infty} \frac{2^n \ n! \ n!}{(2n+1)!}$.