**SHAMBHUNATH INSTITUTE OF ENGINEERING AND TECHNOLOGY**

**SUBJECT: ANTENNA & WAVE PROPAGATION SUBJECT CODE:REC-051**

**B.TECH. 5th - SEMESTER**

**Home assignment. (2019-2020)**

**BRANCH: ELECTRONICS AND COMMUNICATION ENGINEERNG**

**Q-1(i)F**ind radiation resistance of a 1cm long antenna operating at 3MHz.

(ii)Find antenna temperature if antenna looks on ground at 27K with its 70% beam efficiency.

**Q-2**Derive FRIIS formula for communication link with symbols of assumed parameters.

**Q-3**Write a short note on travelling wave antenna with field expression and radiation patterns of different lengths.

**Q-4** Find the field pattern and gain in field of two half wave dipoles array in horizontal plane

for the broad side array case.

.

 .