Total No. of Questions : 8] *[Total No. of Printed Pages : 2*

Roll No .....

EC-604 (GS)

B.E. VI Semester

Examination, May 2018

Grading System (GS)

Antenna and Wave Propagation

Time : Three Hours

Maximum Marks : 70

Note: i) Attempt any five questions.

ii) All questions carry equal marks.

1. Derive an expression for the power radiated by an current element.

2. Derive the expression for the power radiated by quarter wave monopole.

3. Explain Travelling wave antenna in detail with suitable diagram.

4. Explain the principle of pattern multiplication.

5. What is Yagi Uda antenna. Design a Yagi-Uda antenna of six elements to provide a gain of 12 dBi if the operating frequency is 200 MHz.

6. Explain the construction and principle of operation of log periodic antenna with suitable diagram.

7. Explain Dolph-Chebychev method of designing an array.

8. Answer any four of the following:
   a) What is the effective area of a half wave dipole operating at 500 MHz?
   b) Write in brief about the effect of earth on vertical pattern.
   c) Write a short note on microstrip antenna.
   d) What are planer arrays?
   e) What are Ground waves, surface waves and space waves?
   f) What is fading? What are its types?

******