

Roll No.

OLE-24235
B. Tech. 5th Sem. (ECE)
Examination – April, 2021

ANTEENA, WAVE PROPATION & T.V. ENGG.

Paper : EE-307-F

Time : Three hours]

[Maximum Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt *five* questions in all. Question No. 1 is *compulsory*. Answer other *four* questions selecting *one* from each Unit. All questions carry equal marks.

1. (a) Explain Beam-width. 5 × 4 = 20
(b) Discuss effect of ground on antenna pattern.
(c) Discuss Duct formation.
(d) Discuss basic principle of television camera tubes.

UNIT – I

2. Explain Reciprocity theorem for antenna. 20
3. Write short notes on : 20
(a) Retarded potential
(b) Field of short dipole

UNIT – II

4. Explain relation between current distribution and field pattern of an antenna. 20
5. (a) Discuss input impedance broad band matching. 10
- (b) Explain half wave dipole antenna. 10

UNIT – III

6. Explain multi element array and their properties. 20
7. Explain the following antenna : 20
- (a) Log periodic
- (b) Horn

UNIT – IV

8. (a) Explain monochrome picture tube with suitable diagram. 10
- (b) Discuss sound reception synchronization. 10
9. Write short notes on : 20
- (a) Vidicon
- (b) Picture transmission
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