Total No. of Questions: 8]

[Total No. of Printed Pages: 2

Roll No

EC-7001 (CBGS)

B.E. VII Semester

Examination, November 2019

Choice Based Grading System (CBGS) Microwave Engineering

Time: Three Hours

Maximum Marks: 70

Note: i) Attempt any five questions.

- ii) All questions carry equal marks.
- a) Give the general representation of E.M. Field in terms of TEM, TE and TM components.
 - b) Write the properties of propagating and evanescent modes.
- 2. a) How are waveguide different from normal two wire transmission lines.
 - Explain dominant mode of a rectangular waveguide.
- a) Write the properties of scattering matrix of reciprocal and non-reciprocal passive networks.
 - Explain in brief multi hole directional couplers.
- 4. a) Explain the working of isolator in brief.
 - b) What is PIN diode? Explain its properties and applications.
- a) Explain the amplification mechanism of parametric amplifier by use its equivalent circuit.
 - b) Explain the principle of MASER and LASER.

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6. Compare the working of a two cavity and reflex klystrons. 14

7. a) Explain the working of reflex klystron in short. 7

Explain one method of VSWR measurement in short. 7

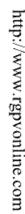
8. Write short notes (any two):

a) Microwave frequency measurement

b) Network analysis

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c) Microwave bench component.



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