

No Preview  
Available

Total No. of Question : [4]

Registration No. :

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**Programme Name : Bachelor of Electronics and Telecommunication Engineering**

**Regular B.Tech.Final Year (A.Y.2023-24) ESE Sem. VII Nov.2023**

**VII SEMESTER ( 2020 BATCH)**

**201ETL407-Micro-Wave Theory(TH)**

Duration : [ 02:00 PM - 04:00 PM ]

Date : 02 Dec, 2023

Day : Saturday

Marks : 50

**Instructions :**

**(Q1) All Questions are compulsory**

**[20.0]**

**CO :- CO1**

**Blooms Taxonomy :- Analyze**

(1.1) A waveguide having dimensions  $a = 5$  cm,  $b = 2$  cm. The signal applied to waveguide is 10GHz. Determine the phase velocity, guide wavelength and mode of propagation. **[6.0]**

**CO :- CO2**

**Blooms Taxonomy :- Understand**

(1.2) Explain Magnetron in brief. **[7.0]**

(1.3) Explain Thin film Formation technique. **[7.0]**

**CO :- CO3**

**Blooms Taxonomy :- Remember**

**(Q2) All Questions are compulsory**

**[10.0]**

(2.1) Explain tunnel diodes. **[4.0]**

**CO :- CO4**

**Blooms Taxonomy :- Understand**

(2.2) Explain IMPATT diode with neat diagram. **[6.0]**

**CO :- CO4**

**Blooms Taxonomy :- Understand**

**OR [ 2.2 / 2.3 ]**

(2.3) Explain working of Bipolar junction Transistor **[6.0]**

**(Q3) All Questions are compulsory**

**[10.0]**

(3.1) Explain microwave applications **[3.0]**

**CO :- CO5**  
**Blooms Taxonomy :- Understand**

(3.2) Discuss about the important considerations when making attenuation measurement. [7.0]

**CO :- CO5**  
**Blooms Taxonomy :- Understand**

**OR [ 3.2 / 3.3 ]**

(3.3) Discuss in detail about measurement of Impedance [7.0]  
(Q4) **Attempt any two out of three questions** [10.0]  
(4.1) Write a short note on Microstrip Antenna. [5.0]

**CO :- CO6**  
**Blooms Taxonomy :- Apply**

(4.2) Explain types of Feeding Methods. [5.0]

**CO :- CO6**  
**Blooms Taxonomy :- Apply**

(4.3) Write a short note on Slotted Antenna. [5.0]

**CO :- CO6**  
**Blooms Taxonomy :- Apply**

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