

**PARUL UNIVERSITY**  
**FACULTY OF APPLIED SCIENCE**  
**M.Sc., Summer 2017-18 Examination**

**Semester: 4**  
**Subject Code: 11204252**  
**Subject Name: Electronic Communication - II**

**Date: 10/05/2018**  
**Time: 2:00pm to 4:30pm**  
**Total Marks: 60**

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**Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

**Q.1. A) Essay type/ Brief note. (4x2) (Each of 04 marks) (08)**

- (a) Explain Types of wave guides.
- (b) Discuss Similarities & Dis-similarities of wave guides with two Wair T.L .

**Q.1. B) Answer the following questions. (Any two)**

- (a) Explain Maxwell's equation for In Frequency domain. (04)
- (b) What are wave guide? Discuss the Characteristics of wave guide. (04)
- (c) Explain Maxwell's equation for In time domain. (04)

**Q.2. A) Answer the following questions.**

- (a) Give the definition of Antenna and write about antenna as transmitting device & receiving device. (04)
- (b) Explain Half wave dipole antenna. (04)

**Q.2. B) Answer the following questions. (Any two)**

- (a) Explain the radiation mechanism of Antenna. (03)
- (b) Write the difference between wave velocity and group velocity. (03)
- (c) Explain Effects of Ground on Antenna. (03)

**Q.3. A) Essay type/ Brief note. (4x2) (Each of 04 marks) (08)**

- (a) Write a note on IF amplifiers
- (b) Classification of Radio receivers

**Q.3. B) Answer the following questions. (Any two)**

- (a) Write a note on Superheterodyne receives (04)
- (b) Explain AM receivers (04)
- (c) Explain Straight Receiver (04)

**Q.4. A) Answer the following questions.**

- (a) Write a note on Development of Radar (04)
- (b) What are Target properties? (04)

**Q.4. B) Answer the following questions. (Any two)**

- (a) Explain Antennas and Scanning (03)
- (b) Write a note on Basic Pulsed Radar system (03)
- (c) Explain Radar Performance Factors (03)