

RF-3955-56

B. Sc. (I.T.) (Sem. II) Examination April/May - 2010

Electronics & Digital Communication

Time: 3 Hours] [Total Marks: 70

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નીચે દર્શાવેલ 👉 નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fillup strictly the details of 👉 signs on your answer book.	Seat No.:
Name of the Examination : B. Sc. (IT) (Sem. 2)	
Name of the Subject :	 (
Electronics & Digital Communication	
→ Subject Code No.: 3 9 5 5 → Section No. (1, 2,): 1	Student's Signature

- (2) Write sections I and section II in separate sheet (with different subject code)
- (3) Draw the figure and give example whenever necessary.
- 1 Answer following questions:
 - (1) Explain following definitions (any five):-

5

- (i) Permeability
- (ii) Modulation
- (iii) Frequency
- (iv) Electric current
- (v) Magnetic field
- (vi) capacitance
- (2) Explain Insulator, conductor, N-type extrinsic semiconductor

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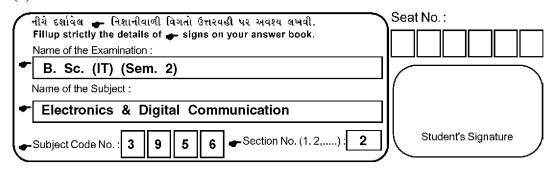
- 2 Answer the following questions in detail (any two):- 12
 - (1) What is intrinsic semiconductor and explain PN-Junction diode with its biasing. (forward bias and reverse bias).
 - (2) Explain Zener diode as a voltage Regulator.
 - (3) Explain AC generator working principle and LDR.
- 3 Answer the following questions in detail (any two):- 12
 - (1) Explain bridge rectifier with the help of circuit diagram.
 - (2) Explain common emitter-cofiguration for transistor
 - (3) Explain Resistor, inductor, Transformer

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- (2) Write sections I and section II in separate sheet (with different subject code)
- (3) Draw the figure and give example whenever necessary.
- 4 Answer the following questions.
 - (1) Answer the following questions:-

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- (i) Explain ohms low
- (ii) What is conduction loss, radiation loss?
- (iii) What are the needs of modulation?
- (2) Answer the following questions

4

- (i) Find the Resistance value of resistor from the color code given bellow
 - (a) red, violet, green, silver
 - (b) red, blue, orange, gold
- (ii) What is FSK (frequency shift key)
- 5 Answer the following question in detail (any three)

15

- (i) Explain Receiver in brief with the help of block diagram,
- (ii) Explain MOSFET with the help of its characteristics
- (iii) Explain ASK (Amplitube shift key) and N-channel JFET
- (iv) Explain SCR (silicon control Rectifier) with the help of its characteristics.
- 6 Explain Amplitude modulation in detail with the help of wave form and sideband.

OR

6 Answer following questions in detail:-

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- (1) Time division multiplexing
- (2) explain RLC series circuit and rosnance frequency.

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