V.P & R.P.T.P SCIENCE COLLEGE Internal test (S.Y.B.Sc. Sem-III) 1:30 to2:30 PM 03/10/2013 **ELECTRONICS CIRCUITS** Total Marks: 30 Thursday US03CELE01 Q-1 [6] **Choose Correct Answer** (1)The Reactance of Inductor $X_{L} =$ (B) $\frac{1}{2\pi fC}$ (A) 2πfL (C) R (D) none of these The Reactance of capacitor Xc = ____ (2)(B) $\frac{1}{2\pi fC}$ (A) 2πfL (C) R (D) none of these (3)Pure Semi Conductor Material is referred as material. A) Intrinsic (B) Extrinsic (C) Metal (D) None of these Doped Semiconductor material is termed as (4)material. A) Intrinsic (B) Extrinsic (C) Metal (D) None of these (5)Diode clamper circuit is used in (C) Power supply (A) Television (B) Radio (D) None of these. Square law diode modulator uses (6)portion of diode characteristics. (A) Linear (B) Non-Linear (C) Triangular (D) None of these. [6] Q-2 Answer the Questions. (Any Three, each two marks) (1)Explain Wire wound resistor. Scie (2)Explain Mica capacitor. (3)Write a note on P-type Semiconductor. (4)Write a note on N-type semiconductor. LIBRAR Draw the circuit of square law diode modulator and explain in brief. (5)(6)Draw a circuit of Amplitude Demodulator circuit and explain in brief. VNa Q-3 List different types of fixed resistors and explain any three in detail. [6] OR Q-3 List different types of fixed capacitors and explain any two in detail. [6] [6] Q-4 Give an Account of Step voltage response of RL - Circuit. OR Q-4 Give an Account of Reverse biased PN Junction diode. [6] Q-5 [6] Explain Amplitude Modulation drawing Wave form and derive necessary derivation. OR [6] Q-5 List different applications of diode and explain any one in detail.

*****All the best*****