S.B. Roll No.……..

ELECTRONIC DEVICES AND CIRCUITS

3RD EXAM/ECE/EMP/ETV/ECE(II)0616/0361/May 2015

Duration: 3Hrs **M. Marks:75**

SECTION-A

Q1. **Fill in the blanks** 15x1=15

(a) Time constant of RC circuit is ……..
(b) A complementary symmetry push pull amplifier uses two transistor of ……..
(c) VCO stand for …….
(d) Barkhausen criterion for producing oscillations is ……..
(e) CMRR stands for ……
(f) The gain of amplifier is 40. It is equal to …….. decibels.
(g) Photo diode operates under …….. biased conditions.
(h) LED stands for …….
(i) Oscillator employs …….. Feedback.
(j) A high Q circuit has …….. Sensitivity.

SECTION-B

Q2: **Attempt any five questions**: 5x6=30

(a) Explain the class A operation of amplifier.
(b) Write the use of positive feedback.
(c) Discuss working principle of transistor as a switch.
(d) Discuss Hartley oscillator functioning and circuit.
(e) Explain line and voltage regulation
(f) Discuss the basic principle of working of diode clippers.

SECTION-C

Note : Attempt any three questions. 3x10=30

Q3. What are the applications of multivibrators ? Discuss the working of IC 555 as astable multivibrator.

Q4. Discuss the working of RC coupled multistage amplifier. What are its advantages and disadavantages.

Q5. Explain the working of an RC phase shift oscillator.

Q6. What is the basic principle of photo resistors? Discuss its characteristics.