[Total No. of Printed Pages:2] **CODE NO:- Z-313**

FACULTY OF ENGINEERING & TECHNOLOGY

S.E.(EC/ECT/IEC/E&C) Year Examination-June-2015

Electronics Devices & Circuits-II

(Revised)

Time: Three Hours **Maximum Marks: 80**

"Please check whether you have got the right question paper."

i) Q. No.1 and Q. No. 6 are compulsory
ii) Solve any two questions from remaining question in each section.
iii) Assume suitable data wherever necessary.
iv) Figures to right indicate full marks.

SECTION-A

Q.1 Solve any five of the following 10

a) Enlist application of laser & Gunn diode.
b) Why heat sink is necessary in power amplifier.
c) Enlist features of op-amp.
d) How power amplifier is different than voltage amplifier.
e) What is pulse amplifier? What are its types?
f) Draw the symbol of schottky diode & Tunnel diode
g) Define cross over distortion in power amplifier.
h) Enlist application power amplifier.

Q.2 a) Explain in detail TRAPATT & BARIT diodes. 07
b) Explain class-c amplifier with characteristics. 08

Q.3) a) Explain with neat diagram Read diode. 07
b) Explain in detail characteristic of OP-amp. 08

Q.4 a) Explain class-B complementary symmetry amplifier. 07
b) Explain AC analysis of differential amplifier 08

Q.5 Write short notes on 15

a) CCD`s
b) Class AB amplifier
c) Op-amp and its features.

SECTION-B

Q.6 Attempt any five 10

a) Explain working principle of clipper.
b) What is symmetrical & asymmetrical triggering?
c) Enlist different wave shaping circuits.
d) Define clamper? Give two applications.
e) Specify coupling used in all multivibrators.
f) Classify non-sinusoidal oscillators.
g) Enlist general features of time based signal.
h) Why astable multivibrators are also called as free running relaxation oscillators.

Q.7 a) What are the unbiased and biased clampers. Explain in detail. 07
b) Explain in detail Schmitt trigger circuits. 08

Q.8	a)	What are positive clippers? Explain in detail.	07
	b)	Explain in detail methods for controlling pulse duration for blocking oscillators.	08
Q.9	a)	A monostable multivibrator is required to convert a 100 KHz, 30% duty cycle square wave to a 100 KHz, 50% duty cycle square wave. Find the values of R_3 and C_1	07
	b)	Explain RC controlled blocking oscillator.	08
Q.10		Write short notes on	15
	a)	Miller time based generator,	
	b)	Astable multivibrator.	
	c)	Voltage time based generator.	