

C.U.SHAH UNIVERSITY

Winter Examination-2015

Subject Name : Electronics

Subject Code : 4SC04PHE1

Branch : B.Sc. (Physics, Chemistry)

Semester : 4 Date : 26/11/2015 Time : 02:30 To 05:30

Marks : 70

Instructions:

- (1) Use of Programmable calculator & any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

Q-1	Attempt the following questions:	(14)
	a) What is JFET? Draw its schematic diagram.	01
	b) Write full name of FET.	01
	c) What is single stage transistor amplifier?	01
	d) Write full name of BJT.	01
	e) Define pinch off voltage in JFET.	01
	f) Define stability factor of transistor.	01
	g) Why transistor biasing is necessary?	01
	h) Convert 15_{10} into binary number.	01
	i) Convert 10101101_2 into decimal number.	01
	j) What is logic gates? Give name of three basic logic gates.	01
	k) Draw schematic symbol of MOSFET.	01
	l) What is MOSFET?	01
	m) What is UJT?	01
	n) Draw the truth table of NOR gate.	01

Attempt any four questions from Q-2 to Q-8.

Q-2	Attempt all questions	(14)
	a) Discuss base resistor biasing method with its merits and demerits.	07
	b) What is transistor? Explain feedback resistor biasing method.	07
Q-3	Attempt all questions	(14)
	a) Distinguish JFET and BJT.	07
	b) Explain construction detail and working principle of JFET.	07
Q-4	Attempt all questions	(14)
	a) Explain working of MOSFET. Write advantages of JFET.	07
	b) Discuss phase reversal process in transistor amplifier.	07



