AC-2948
First Year B. Sc. (Sem. II) Examination
April / May - 2015
Applied Electronics : Paper - I
(Electronics Switching Circuits)

Time : 2 Hours] [Total Marks : 50

Instructions :
(1) Fill up strictly the details of signs on your answer book.
Name of the Examination :
First Year B. Sc. (Sem. II)
Name of the Subject :
Applied Electronics - I (Electronics Switching Circuits)

(2) Question no. 1 is compulsory.
(3) Symbols and terminology used here their usual meanings.

Q-1 Write short answers [08]

1. Draw the RC circuit to response the Square wave.

2. What will be the value of the time constant RC if R=680kΩ and C=0.01μF

3. What is IC-555? Why such name is given to this device?

4. Draw neat and clean circuit diagram of diode NOR Gate.

Q-2 1. What is Differentiation? Draw & discuss the differentiation for Pulse wave forms.

2. Draw the “Negative Series clipper” and explain it briefly 10
OR

Q-2 1. Draw & discuss the Diode as Switch in detail..

2. Draw the “Positive series clipper” and explain it briefly 04

Q-3 1. Draw & discuss the Collector-coupled Monostable multivibrator.

2. Draw the neat & clean circuit diagram for “Triggering Monostable multivibrator” & explain its working briefly. 04

AC-2948] 1 [Contd...
Q-3  1. Discuss the "Practical Transistor Switch" with suitable graph and circuit diagrams
   2. Draw the Time relationship between Base current and Collector current in a transistor switching circuit. Clearly indicate the "delay time, rise time, turn-off time, and storage time"

Q-4
   Write short notes (Any Two)
   1. Transistor switching times
   2. Capacitor-coupled inverter.
   3. Diode NAND Gate
   4. N-MOS NAND gate