



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)

<p>नीचे दृशावेक निशानीवाणी विगतो उत्तरवही पर अवश्य लपवी. Fillup strictly the details of signs on your answer book.</p> <p>Name of the Examination : First Year B. Sc. (Sem. II)</p> <p>Name of the Subject : Applied Electronics - I (Electronics Switching Circuits)</p> <p>Subject Code No. : 2 9 4 8 Section No. (1, 2,.....): Nil</p>	<p>Seat No. : □ □ □ □ □ □</p> <p style="text-align: center; border: 1px solid black; border-radius: 15px; padding: 10px;">Student's Signature</p>
---	---

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

Q-1	Write short answers	[08]
	<p>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.</p>	
Q-2	<p>1. What is Differentiation? Draw & discuss the differentiation for Pulse wave forms. 10 2. Draw the "Negative Series clipper" and explain it briefly 04</p> <p style="text-align: center;">OR</p>	
Q-2	<p>1 Draw & discuss the Diode as Switch in detail.. 10 2 Draw the " Positive series clipper" and explain it briefly 04</p>	
Q-3	<p>1 Draw & discuss the Collector-coupled Monostable multivibrator. 10 2 Draw the neat & clean circuit diagram for " Triggering Monostable multivibrator" & explain its working briefly. 04</p> <p style="text-align: center;">OR</p>	

- Q-3**
- 1** Discuss the “ Practical Transistor Switch “ with suitable graph and circuit diagrams **10**
 - 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 “ **04**
- Q-4** Write short notes (Any Two) **[14]**
- 1** Transistor switching times
 - 2** Capacitor- coupled inverter.
 - 3** Diode NAND Gate
 - 4** N-MOS NAND gate
-