



DPP-2950

First Year B. Sc. (Sem. II) Examination

March / April - 2016

Electronics for Computer Science : Paper - I
(Electronics Switching Circuits)

Time : 2 Hours]

[Total Marks : 50

Instructions :

(1)

नीचे दशांशिक निशानीवाणी विगतो उत्तरवही पर अवश्य कभवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
First Year B. Sc. (Sem. II)	<input type="text"/>
Name of the Subject :	<input type="text"/>
Electronics for Computer Science : Paper - I	<input type="text"/>
Subject Code No. : <input type="text"/> 2 <input type="text"/> 9 <input type="text"/> 5 <input type="text"/> 0	<input type="text"/>
Section No. (1, 2,.....) : <input type="text"/> NIL	
Student's Signature	

- (2) All questions are compulsory.
(3) Question - 1 carry 10 marks.
(4) Questions - 2 and 3 carry 15 marks.
(5) Question - 4 carry 10 marks.

- 1 Write short answers : 10
- (1) Draw the RC circuit to response to square wave. 2
- (2) What will be the value of the time constant RC if $R = 680 \text{ k}\Omega$ and $C = 0.01 \mu\text{F}$? 2
- (3) What is timer IC ? Why such name is given to it ? 2
- (4) Draw neat and clean circuit diagram for diode OR Gate. 2
- (5) What is TTL ? 2
- 2 (1) What is integration ? Draw and discuss it in detail. 10
- (2) Draw the "Negative Series Clamper" and explain it briefly. 5

OR

- 2 (1) Draw and discuss the Diode as Switch in detail. 10
- (2) Draw the "Positive series clamper" and explain it briefly. 5

- 3 (1) Draw and discuss the Collector-coupled Monostable multivibrator. 10
- (2) Draw the neat and clean circuit diagram for "Triggering Bistable Multivibrator" and explain its working briefly. 5

OR

- 3 (1) Discuss the practical Transistor Switch in detail. 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." 5
- 4 Write short notes : (any two) 10
- (1) Transistor switching times. 5
- (2) Capacitor-coupled inverter. 5
- (3) Diode NAND Gate. 5
- (4) N-MOS NAND gate. 5
