Total No. of Printed Pages:1

SUBJECT CODE NO: E-89
FACULTY OF ENGINEERING AND TECHNOLOGY
F.E.(All) (CGPA) Examination Nov/Dec 2017
Basic Electronics Engineering
(REVISED)

[Time: 2:00 Hours] **[Max.Marks:40]**

Please check whether you have got the right question paper.

N.B
i. Q.No.1 is compulsory
ii. Solve any two questions from remaining questions
iii. Assume suitable data whatever necessary.

Q.1 Solve any five. 10
a) Enlist Different types of resistors
b) Draw the symbols of NPN Transistor & TRIAC.
c) Define Rectifier
d) State any two Boolean laws
e) Write Colour code for the following
i) 240Ω,±20% ii) 1Ω,±5%
f) Define Latching current
g) Draw circuit diagram of half wave rectifier
h) Write 1's complement of the following
i. $(100001)_2$ ii. $(110011)_2$

Q.2 a) What are the different types of capacitor? Explain any one in detail. 08
b) Explain construction, working & principle of TRIAC device. 07

Q.3 a) What is need of rectifier? Explain bridge rectifier with circuit diagram. 07
b) Explain Adjustable voltage regulator using LM317. 08

Q.4 a) Implement NOT, OR & AND Gate by using NAND gate. 07
b) Perform following conversion. 08
i. $(347)_8=(\quad)_2=(\quad)_{16}$
ii. $(100001)_2=(\quad)_{10}=(\quad)_{16}$

Q.5 Write short note on (any three) 15
a) DE-MORGANS Theorem
b) SCR
c) Zener diode as voltage regulator
d) 1'S complement & 2'S complement
e) Voltage regulator IC 78XX & IC 79XX