



FY BTech

FYT 108

~~Nov 2017~~

28 Dec

School of Technology

Elements of Electronics Engineering

Re- End Semester Examination (ESE)

Semester I

Max Marks: 100

Time: 3 Hrs

Instructions for Students: 1) Use of calculator is **not** allowed
2) All questions are compulsory

		Marks	COs
Q1	Solve any Two		
a)	With the help of neat diagram and waveforms explain the working of Full Wave Rectifier with center tap configuration?	09	CO1
b)	Compare Zener diode and p-n junction diode?	09	CO1
c)	With the help of neat circuit diagram explain I-V characteristics of p-n junction diode?	09	CO1
Q2			
a)	Explain Transistor as a switch?	04	CO2
b)	With the help of neat circuit diagram and input-output characteristics, explain the working of BJT (NPN) common emitter configuration?	12	CO2
	OR		
b)	With the help of neat circuit diagram, symbol & I-V characteristics, explain the working of Depletion type N-MOS	12	CO2
Q3			
a)	With the help of logical equation, diagram & truth table, explain Basic logic gates	04	CO3
b)	Convert the following numbers	12	CO3
	a) $(125.62)_{10} \rightarrow (y)_2$ d) $(981.25)_{10} \rightarrow (y)_{16}$		
	b) $(10111.1010)_2 \rightarrow (y)_8$ e) $(716.12)_8 \rightarrow (y)_2$		
	c) $(625.25)_{10} \rightarrow (y)_2$ f) $(AC.F9)_{16} \rightarrow (y)_2$		
Q4	Solve any Two	Marks	COs
a)	With the help of block diagram, explain the working of op-amp in details.	09	CO4
b)	With the help of neat circuit diagram, derivation and waveform, explain the working of op-amp as a differentiator.	09	CO4
c)	With the help of neat circuit diagram, derivation and waveform, explain the working of op-amp as a summing amplifier.	09	CO4

Q5

a) With the help of block diagram explain the construction of RADAR with its applications 04 CO5

b) With the help of neat block diagram, explain the construction and the working of FM Transmitter and FM Receiver 12 CO5

OR

b) With the help of neat block diagram, explain the construction and the working of AM Transmitter and AM Receiver 12 CO5

Q6

a) Differentiate between CRO & DSO 04 CO6

b) With the help of neat block diagram, explain the working of Digital Multimeter, state its applications. 12 CO6

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