


EST - I

- 1st year

2017

FIRST YEAR HIGHER SECONDARY EXAMINATION, MARCH / SEPTEMBER 2016

Qn. No.	Sub Qns	Answer Key / Value points	Score	Total
1		Symbols	$\frac{1}{2} \times 4$ = 2	2
2		$R = \frac{V}{I} = \frac{10}{0.5} = 20 \Omega$ $\therefore R = 20 - 13 = 7 \Omega$	1 1	2
3	a b	0.72 eV  $R = \infty$	1 1 1	3
4		$(5+2) \text{ mA} = (5+2+1) \text{ mA}$ $\therefore I = 1 \text{ mA}$	1 2 1	2
5		Fm $m_f = \frac{d}{f} = \frac{300 \text{ kHz}}{15 \text{ kHz}} = 20$	1 1	2
6		Structure of Pchannel JFET One application of LED, Zener diode, photodiode, TRIAC	2 $\frac{1}{2} \times 4$ = 2	4
7	a b	O/p characteristics marking 3 regions $\frac{I_c}{I_B}$	1 1 1 1 = 2	3
8		Brown, Black, Gold - 10 Ω Violet, green, Red - 75 k Ω Orange, White, Blue - 39 M Ω	1 \times 3 = 3	3
9	a b	a = 11 pF, b = 2.4 k Ω , c = 5 mH Preset	1 \times 3 1	4

