

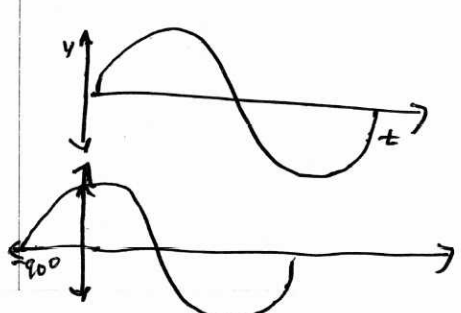
**FIRST YEAR HIGHER SECONDARY EXAMINATION MARCH 2018**

SUBJECT: **ELECTRONICS**

CODE. NO: **123**

Qn No	Sub Qns	Answer Key/Value Points	Score	Total
1		Orange	1	1
2		$10\Omega$	1	1
3		1.1 eV	1	1
4		Zener Breakdown	1	1
5		Output Voltage is Maximum	1	1
6		Diode	1	1
7		$180^\circ$ or $\pi$	1	1
8		$X_c = X_L$	1	1
9		NIAND or EX-OR	1	1
10		CRO	1	1
11		5% Range of Variation is less	1 1	2
12		Any Two points each	2	2
13		Any One reason	2	2
14		Yes By applying gate voltage	1 1	2

Qn No	Sub Qns	Answer Key/Value Points	Score	Total
15		Circuit diagram Output wave form	1 1	2
16		The positive half of the output becomes clipped	2	2
17		write any 2 differences	2	2
18	(a)	$X_L = 2\pi fL$	1	3
	(b)	For DC, $f=0$ , $X_L=0$	2	
19	(a)	write any one	1	3
	(b)	To increase the conductivity	2	
20	(a)	Name of three regions	1	3
	(b)	Explain clipping and physical size	2	
21	(a)	Symbol	1	3
	(b)	Diagram	2	
22		Conversion steps	3	3
23		By applying sawtooth wave form on X-plates	3	3

Qn No	Sub Qns	Answer Key/Value Points	Score	Total
24	(a) (b)	$f_0 = \frac{1}{2\pi\sqrt{LC}}$ $Z = R = 10\Omega$	3 1	4
25	(a) (b)	Due to minority carriers Write any two differences	2 2	4
26	(a) (b)	working of Capacitor as a filter Output wave form without filter Output wave form with filter	2 1 1	4
27	(a) (b)	Two points Circuit diagram	2 2	4
28	(a) (b) (c)	Circuit diagram 3 $60^\circ$	2 1 1	4
29	(a) (b)	Peak Voltage = $V_m = 6V$ $\omega = 2\pi f = 628\pi$ , Find $f$ $T = \frac{1}{f}$ 	1 1 1 1 1	5

Qn No	Sub Qns	Answer Key/Value Points	Score	Total
30	(a)	DC load line	2	5
	(b)	on x axis - $(V_{CC}, 0)$ on y axis - $(0, \frac{V_{CC}}{R_C})$	2	
	(c)	Mark the points	1	
31	(a)	Truth Table	2	5
	(b)	Sum = $A \oplus B$ Carry = $A \cdot B$	2	
	(c)	Circuit diagrams	1	
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