

ANSWER KEYSECOND YEAR HIGHER SECONDARY EXAMINATION March 2023PART-I/H/IIISUBJECT: ELECTRONIC SYSTEMSCODE NO: SY/253 553VERSION: Q60 SCORES2 HOURS

Qn. No	Sub Qns	Answer Key/Value Points	Score	Total Score
1.		clipper	1	1
2.		OV	1	1
3		colpitts	1	1
4		Insulating layer	1	1
5		Loud speaker	1	1
6		8086	1	1
7	a	Low Pass filter	1	2
	b	Circuit diagram	1	
8	a	Circuit diagram	1	2
	b.	Output waveform	1	
9		Conditions for sustained oscillations	1x2	2
10		Any two comparisons	1x2	2
11		Block diagram and truth table of 4:1 multiplexer	1x2	2
12		Block diagram of master slave JK flip flop	2	2
13	a)	Radio Detection and Ranging	1	2
	b)	Block diagram of RADAR	1	

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14		Any two operating system	1 x 2	2
15		Block diagram of PA system	2	2
16		Explain total internal reflection with diagram	2	2
17	a)	LED or LASER	1	2
	b)	Any two advantages of OFC	$\frac{1}{2} \times 2$	
18		Block diagram of microcontroller	2	2
19		Explanation of ECG with block diagram	2	2
20	a)	Circuit diagram of integrator	$1\frac{1}{2}$	3
	b)	Output waveform of positive clipper with positive bias	$1\frac{1}{2}$	
21		Different steps	3	3
22		Circuit diagram of inverting amplifier	2	3
		Gain	1	
23	a)	IC 741	1	3
	b)	Any four characteristics	$\frac{1}{2} \times 4 = 2$	
24	a)	DC to AC	$\frac{1}{2} \times 2$	3
	b)	Block diagram of inverter	2	
25		Any three advantages	1 x 3	3
26		Circuit diagram of 3 bit asynchronous counter (mod 8 up counter)	3	3
27	a)	Truth table of JK flip flop	1	3
	b)	Circuit diagram of JK flip flop using NAND gates	2	

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28	a) b)	electromagnetic induction cross sectional view of moving coil microphone	1 } 2 }	3
29	a) b) (i) (ii)	LPF, HPF, BPF, BSF Definition of cut off frequency Definition of pass band	$\frac{1}{2} \times 4 = 2$ } 1 } 1 }	4
30	a) b) c)	voltage follower Input output waveform One application of voltage follower	1 } $1 \times 2 = 2$ } 1 }	4
31	a) b)	Number of output states of a counter Mod 10 counter	1 } 3 }	4
32	a) b)	AM, FM Block diagram of TV receiver	$\frac{1}{2} \times 2 = 1$ } 3 }	4
33	a) b)	Subscriber's Identity Module Block diagram of mobile architecture	1 } 3 }	4