IC

Set 1 (MOCK)

(1MKS)

1.	Specified value of CMRR for 741 opamp is _____. 70dB 80dB 90dB 100dB
2.	How many select lines are use in ALU IC-74181? 4 8 16 32
3.	Average of two input current of op-amp is _____ Input offset Current Input Bias Current Input offset Voltage Output Offset Current
4.	Select correct voltage gain formula for Non-inverting Amplifier –(Rf/R) 1+(Rf/R) (Rf/R) 1
5.	If step input is given to Integrator circuit output will be Square wave Ramp Cosine Impulse
6.	Differentiator circuit is what type of filter Low pass filter High pass filter Band pass filter Band reject filter
7.	RC Phase shift oscillator ‘s gain must be 3 29 6 1
8.	Which is not synchronous counters IC? 74160 74161

	7490 74162
9.	What type of wave form generated by square wave generator, at across capacitor square wave sawtooth Cosine Triangular wave
10.	Which voltage regulator IC is used for positive adjustable voltage 7805 317 337 7912
11.	In IC-555 pin no. 7 is known as +Vcc Threshold Discharge Ground
12.	Astable multivibrator does not require _____input external trigger internal trigger Vcc ground
13.	The frequency of the VCO can be changed by changing external component____ inductor capacitor transistor transformer
14.	What will be the output of a IC 7812? +12 -12 78 3
15.	The output voltage of phase detector use in PLL is Phase voltage Discrete voltage Error voltage Always 0
16.	What is the voltage gain of the Voltage follower circuit? 0

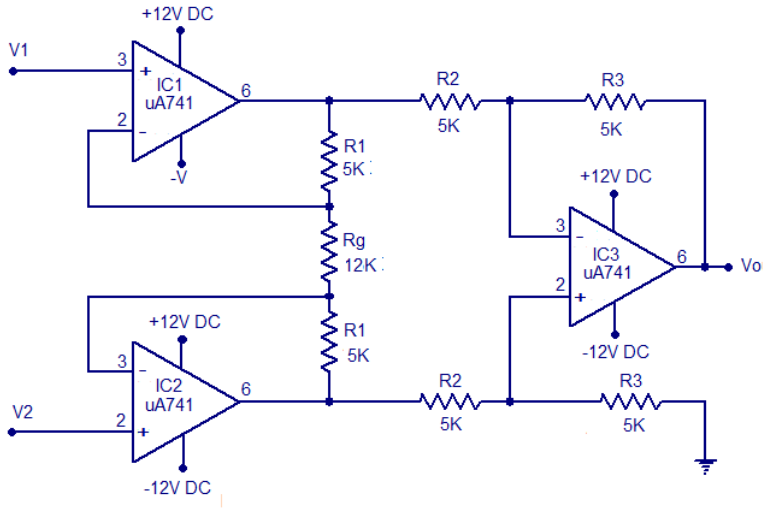
	1 –1 infinity

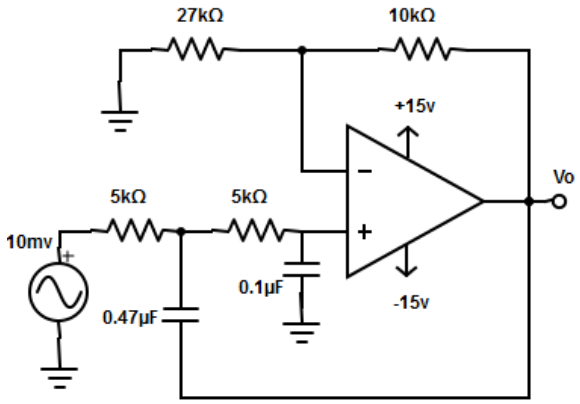
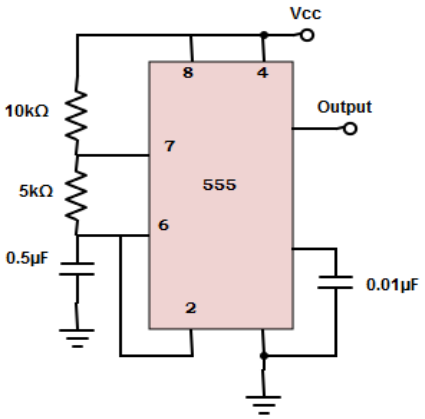
(2MKS)

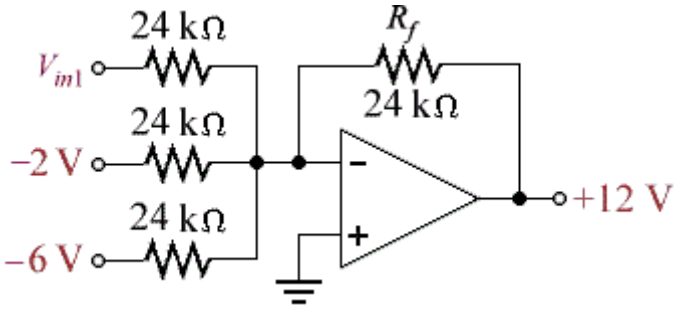
17.	Calculate the voltage regulation of a power supply having VNL = 12 V and VFL = 12 V 0% 10% 20% 30%
18.	Wein bridge having R = 100kohms, C = 1nF. calculate frequency of oscillation. 1.6kHz 16kHz 650Hz 6.5kHz
19.	A Second Order Low Pass Filter having R1=R2 = 10kΩ and C1=C2 = 0.1uF. Calculate cut-off frequency 1.5kHz 159Hz 100Hz 2kHz
20.	Which are the correct statements for an integrator circuit - Statement 1- It is inverting amplifier Statement 2- It is non-inverting amplifier Statement 3- Uses positive feedback Statement 4- Uses negative feedback Statements 1& 3 are correct. Statements 2& 4 are correct. Statements 1& 4 are correct. Statements 2& 3 are correct.
21.	Astable multivibrator operating at 150Hz has a Ton=2.5m. Find the duty cycle of the circuit. 50% 75% 95.99% 37.5%
22.	Series pass transistor always operates in the_____region in a linear IC voltage regulator Active Saturation Cut-off

	transient
23.	What is the value of current I_{ADJ} in Voltage regulator IC -LM317? 10 micro Amperes 50 micro Amperes 100 micro Amperes 150 micro Amperes
24.	Voltage 0.3 V can be rectified by Half wave rectifier Full wave rectifier precision rectifier bridge rectifier
25.	The range of frequencies over which the PLL can acquire lock with an input signal is called as capture range True False
26.	In IC-555 Voltage at pin no. 5 is 1/3 Vcc 2/3 Vcc 1/2 Vcc Vcc
27.	Change in output voltage for a change in input voltage is known as Load regulation Line regulation voltage regulation current regulation

(2MKS)

28.	Calculate gain for given circuit 

	5 1.8 0.5
29.	Calculate the high cut-off frequency for the circuit given  589Hz 185Hz 147Hz 104Hz
30.	Find Ton time for given circuit.  5ms 3ms 2ms 1ms
31.	Calculate the output voltage for LM317 regulator, if R1=240Ω R2=5kΩ. 27v 32v 34v 22v
32.	To design Monostable M/V with delay time 11ms and C= 0.1uF. What will be the value of R=? 100Ω

	1kΩ 100kΩ 1MΩ
33.	In the given circuit, V_{IN1} equals _____.  4 -4 20 -20