Program: Electronics & Telecommunication Engineering
Curriculum Scheme: Rev2012
Examination: Second Year Semester IV
Course Code: ETC402 and Course Name: Analog Electronics-II

Time: 1 hour Max. Marks: 50

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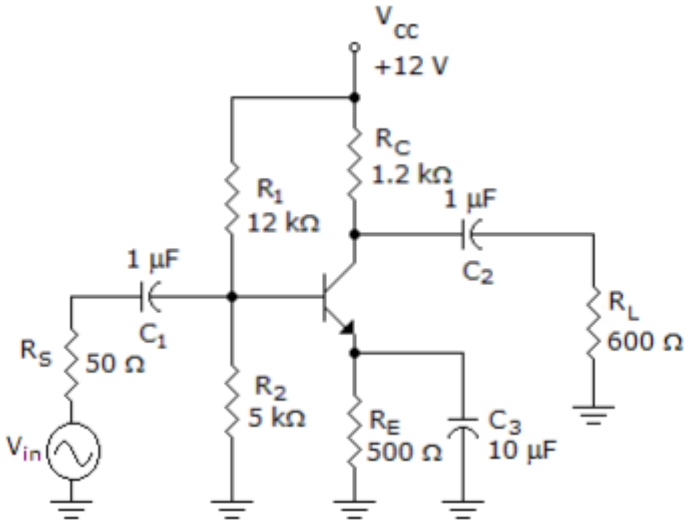
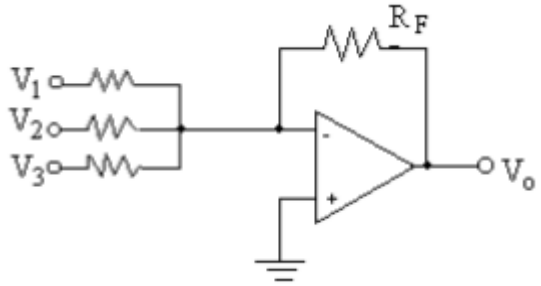
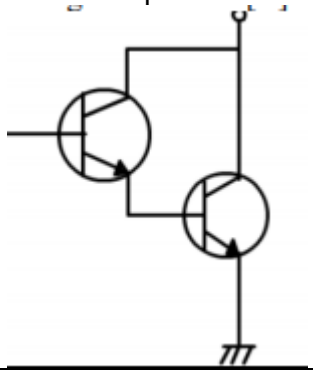
For the students:- All the Questions are compulsory and carry equal marks .

Q1.	Internal transistor junction capacitances affect the high-frequency response of amplifiers by
Option A:	Reduces the amplifier gain
Option B:	Increases the amplifier gain
Option C:	Does not affect the amplifier gain
Option D:	Nothing can be predicted
Q2.	If the power level of an amplifier reduces to half, the dB gain will fall by
Option A:	5 dB
Option B:	2 dB
Option C:	10 dB
Option D:	3 dB
Q3.	An amplifier has an input signal voltage of 0.054 mV. The output voltage is 12.5 V. The voltage gain in dB is
Option A:	53.6 dB
Option B:	107.3 dB
Option C:	231 dB
Option D:	116 dB
Q4.	In the figure below capacitor C3 affects the 
Option A:	High frequency response
Option B:	Low frequency response
Option C:	Mid frequency response
Option D:	Very High frequency response

Q5.	In the circuit shown below, R1 = 12 kΩ, R2 = 5 kΩ, R3 = 8 kΩ and RF = 12 kΩ. The inputs are V1 = 9 V, V2 = -3 V and V3 = -1 V. Compute the output voltage. 
Option A:	0.3 V
Option B:	-0.3 V
Option C:	0.4 V
Option D:	-0. 4 V
Q6.	Each transistor in the darlington pair shown below has hFE = 100. The overall hFE of the composite transistor, neglecting leakage currents is 
Option A:	10001
Option B:	1000
Option C:	10000
Option D:	1001
Q7.	When a differential amplifier is operated single-ended, _____
Option A:	the output is grounded
Option B:	one input is grounded and signal is applied to the other
Option C:	both inputs are connected together
Option D:	the output is not inverted
Q8.	A cascode amplifier stage is equivalent to
Option A:	A common emitter stage followed by a common base stage
Option B:	An emitter follower stage followed by a common base stage
Option C:	A common base stage followed by an emitter follower
Option D:	A common base stage followed by a common emitter stage
Q9.	In Class A operation, the operating point is generally located_____ of the d.c. load line
Option A:	At the cut off point
Option B:	At the middle
Option C:	At saturation point

Option D:	Below cut off point
Q10.	The % load regulation of a power supply should be ideally _____ & practically _____.
Option A:	Zero, small
Option B:	Small, zero
Option C:	Zero, large
Option D:	Large, zero
Q11.	Class _____ operation gives the maximum distortion
Option A:	A
Option B:	B
Option C:	C
Option D:	AB
Q12.	In ideal Differential Amplifier, if same signal is given to both inputs, then output will be
Option A:	Same as input
Option B:	Double the input
Option C:	Not equal to zero
Option D:	Zero
Q13.	Which of the following is not a cascade (one of the types of multistage configuration) amplifier
Option A:	CS-CS
Option B:	CE-CE
Option C:	CS-CE
Option D:	CE-CB
Q14.	The lower and the upper cut-off frequencies are also called as_____ frequencies.
Option A:	Sideband
Option B:	Resonant
Option C:	Half resonant
Option D:	Half power
Q15.	Power amplifiers generally use transformer coupling because transformer permits……..
Option A:	Cooling of the circuit
Option B:	Impedance matching
Option C:	distortionless output
Option D:	good frequency response
Q16.	If a three stage amplifier has individual stage gains of 10 dB, 5dB and 12 dB, then the total gain in dB is
Option A:	600 dB
Option B:	24 dB
Option C:	14 dB

Option D:	27 dB
Q17.	In a MOSFET differential amplifier, the transistors are biased to operate in the _____ region.
Option A:	Ohmic
Option B:	Saturation
Option C:	Cut off
Option D:	Breakdown
Q18.	The ideal opamp has
Option A:	Infinite voltage gain and zero input impedance
Option B:	Infinite voltage gain and infinite bandwidth
Option C:	Zero voltage gain and infinite CMRR
Option D:	Zero output impedance and zero CMRR
Q19.	A 2-transistor class B power amplifier is commonly called _____ amplifier
Option A:	Dual
Option B:	Push-pull
Option C:	Symmetrical
Option D:	Differential
Q20.	The size of power transistor is made considerable large to _____
Option A:	provide easy handling
Option B:	dissipate heat
Option C:	facilitate connections
Option D:	For easy designing
Q21.	Which current source exhibits a very high output resistance?
Option A:	Simple current mirror
Option B:	Wilson current mirror
Option C:	Widlar current mirror
Option D:	simple current source
Q22.	The corner frequency of a circuit is given as
Option A:	$1/2\pi RC$
Option B:	$2\pi RC$
Option C:	$2\pi R$
Option D:	$1/2\pi R$
Q23.	In practical application of current mirror, early voltage is assumed to be
Option A:	Infinite
Option B:	Zero
Option C:	Unity
Option D:	26 mV
Q24.	The maximum efficiency of transformer coupled class A power amplifier is _____
Option A:	30 %
Option B:	50 %

Option C:	80 %
Option D:	45 %
Q25.	At the initial stages of a multistage amplifier, we use _____
Option A:	Direct coupling
Option B:	RC coupling
Option C:	Transformer coupling
Option D:	Impedance matching