

BSc Sem.-4 Examination

CC-204

Electronics

May-2025

Time : 2-30 Hours]

[Max. Marks : 70

Instructions: (1) Symbol used here have their usual meanings (2) Figures to the right indicate marks		
Q-1		
A)	Explain Phase shift oscillator in detail with suitable circuit diagram and analysis	07
B)	Write notes on Colpitts Oscillator	07
OR		
A)	Write notes on Hartley oscillator	07
B)	Draw the circuit diagram of Mono stable Multivibrator and explain its operation in detail	07
Q-2		
A)	Explain transformer coupled resistive load with suitable figure	07
B)	Explain Operation of a Class A push pull amplifier	07
OR		
A)	Explain class-B push-pull Amplifier with suitable circuit diagram	07
B)	What is complementary symmetry ? Explain practical complimentary symmetry amplifier in detail	07
Q- 3		
A)	Explain following basic planar process (1) Epitaxial growth (2) Photolithography	07
B)	Discuss how to fabricate the Monolithic transistors	07
OR		
A)	Discuss how to fabricate the schottky barrier diode and schottky transistor	07
B)	Explain thin film technology in detail	07
Q-4		
A)	What is an ideal Op-amp? Also explain open loop operation of an Op-amp and feedback in an ideal Op-amp	07
B)	Explain analysis of non-inverting amplifier with suitable circuit diagram	07
OR		
A)	Explain tern following term of DC characteristics of an Op-amp (1) Input bias current, (2) input offset voltage	07
B)	Explain slew rate in an op-amp with suitable figure	07
Q-5	Attempt any seven out of twelve	14
1	Write the equation for the frequency of Wein bridge oscillator	
2	What is the effect of positive feedback in an oscillator?	
3	Compare Asstable multivibrator and Bistable multivibrator	
4	Write any two disadvantages of a single ended transformer coupled amplifier?	
5	What is push pull amplifier?	
6	What is transistor phase inverter ?	
7	Write the full form of LSI and ULSI in IC technology	
8	Write the names of basic thick film processes	
9	What is oxidation in basic planar process?	
10	What is Op-amp based differential amplifier?	
11	What is input offset current in an op-amp?	
12	What is thermal drift?	