22ELU204N / 22ELU204

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2025
(Second Semester)

Branch – **ELECTRONICS**

ELECTRONIC CIRCUITS

Time: Three Hours Maximum: 75 Marks

SECTION-A (10 Marks)
Answer **ALL** questions
ALL questions carry **EQUAL** marks (10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	A Bridge Rectifier has a maximum efficiency of _____ a) 61.2 b) 81.2 c) 21.2 d) 41.5	K1	CO1
	2	The property of an inductor to block AC and provides zero resistance to _____ is used in filtering circuit a) Noise b) DC c) Frequency. d) AC	K2	CO1
2	3	Common _____ amplifier circuit is commonly called "Voltage Divider Biasing". a) Base b) Collector c) Emitter. d) Schmitt trigger	K1	CO2
	4	The coupling of the amplifier stages is done directly and hence called as _____ coupled amplifier. a)Transformer. b) Multistage. c) RC. d) Direct.	K2	CO2
3	5	In class C the transistor conducts for less than one half cycle period of the input i.e around _____ angle. a) 80° to 120° b) 90° to 120° c) 70° to 120° d) 0° to 120°	K1	CO3
	6	_____ distortion occurs when transistors not operating in correct phase with each other. a) Frequency b) Crossover c) Amplitude d) Delay	K2	CO3
4	7	A feedback amplifier generally consists of two parts. They are the _____ and the feedback circuit. a) biasing b) oscillator c) amplifiers d) switching	K1	CO4
	8	Voltage shunt feedback amplifier forms_____ a) A negative feedback, b) A positive feedback c) Both positive and negative, d) None of the mentioned	K2	CO4
5	9	Hartley oscillator is commonly used in_____ a)Radio receivers b) Radio transmitters c)TV receivers d) mobile receiver	K1	CO5
	10	Astable multivibrator is _____ in any state. a)Stable b) Unstable c) Saturated d) Both Stable & Saturated	K2	CO5

Cont...

SECTION - B (35 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Draw and explain Full wave Rectifier and note the disadvantage of this rectifier	K2	CO1
		(OR)		
	11.b.	What is π filter? Describe the working of π filter		
2	12.a.	With neat diagram discuss the working of CB amplifier.	K3	CO2
		(OR)		
	12.b.	How Transformer coupled amplifier works? Explain it and write their advantages.		
3	13.a.	Discuss in detail about Class AB amplifier.	K3	CO3
		(OR)		
	13.b.	List out various types of distortion in amplifiers.		
4	14.a.	Write a note on Gain and Stability in Feedback amplifier.	K3	CO4
		(OR)		
	14.b.	Draw and explain voltage Series feedback amplifier.		
5	15.a.	With neat circuit diagram write about Colpitt's oscillator.	K4	CO5
		(OR)		
	15.b.	Describe the working principle of Schmitt Trigger.		

SECTION -C (30 Marks)

Answer **ANY THREE** questions

ALL questions carry **EQUAL** Marks (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Diode act as a clipper how it employs explain it?	K4	CO1
2	17	Briefly explain Base Resistor Method of transistor biasing and derive the Stability factor.	K4	CO2
3	18	Describe in detail about class C amplifier with neat circuit diagram	K4	CO3
4	19	List out the advantages of negative feed back amplifier.	K4	CO4
5	20	State and explain Barkhausen's criterion for oscillations.	K4	CO5

Z-Z-Z END