

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION DECEMBER 2024
(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	If input frequency is 50Hz then ripple frequency of half wave rectifier is _____ a) 100 Hz b) 50 Hz c) 25 Hz d) 500 Hz	K1	1
	2	What is IC 723? a) A voltage regulator b) A full-wave rectifier c) A half-wave rectifier d) A clipper	K2	1
2	3	BJT is biased to _____ a) Work as a switch b) Prevent thermal runaway c) Increase DC collector current d) Operate it in the saturation region	K1	2
	4	What is the purpose of RC or transformer coupling? a) To block a.c. b) To separate bias of one stage from another c) Increase Efficiency d) Increase thermal stability	K2	2
3	5	_____ is the efficiency of Class A amplifier. a) 30 or less b) 50 or less c) 100 d) 75	K1	3
	6	In _____ region the Q point lie for class B amplifier. a) Active b) Cut off c) Saturation d) all	K2	3
4	7	Voltage shunt feedback amplifier forms _____ feedback. a) A negative b) A positive c) Both (a) and (b) d) None	K1	4
	8	Negative feedback reduces _____ a) gain b) noise c) distortion d) all	K2	4
5	9	_____ is not an LC oscillator. a) Hartley Oscillator b) Colpitts oscillator c) Crystal oscillator d) Clapp oscillator	K1	5
	10	What happens if the threshold voltages are made longer than the noise voltages in schmitt trigger? a) All the mentioned b) Enhance the output signal c) Reduce the transition effect d) Eliminate false output transition	K2	5

Cont...

SECTION - B (35 Marks)

Answer ALL questions

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

ALL questions carry EQUAL marks (5 x 7 = 35)				
Module No.	Question No.	Question	K Level	CO
1	11.a.	Explain about the working of half wave rectifier in detail.	K2	1
	(OR)			
	11.b.	Demonstrate the LC filter with example.		
2	12.a.	Select CE amplifier and compare with CB amplifier and explain.	K3	2
	(OR)			
	12.b.	Apply frequency to an amplifier circuit give its response.		
3	13.a.	Construct a class A amplifier and explain its properties.	K3	3
	(OR)			
	13.b.	Build a push pull amplifier circuit and explain its power relation.		
4	14.a.	Compare positive feedback and negative feedback and list its differences.	K4	4
	(OR)			
	14.b.	Analyze the variations in current and voltage feedback amplifier circuits.		
5	15.a.	List the advantages of Hartley oscillator.	K4	5
	(OR)			
	15.b.	Examine the operation of Bi-stable multivibrator and list out its process.		

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	Analyze the working of LC filter with examples.	K4	1
2	17	Examine the operation of multistage amplifier and write the important points.	K4	2
3	18	Compare the class B and Class C amplifier and list the differences.	K4	3
4	19	Give a conclusion on the effects of distortion and noise in amplifier.	K4	4
5	20	Analyze and give a report on how UJT is used as relaxation oscillator?	K4	5