

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2026
(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	What is the main function of a rectifier? a) Amplify AC signals b) Convert DC to AC c) Convert AC to DC d) Store electrical energy	K1	CO1
	2	Which component is primarily used in clipper circuits? a) Transistor b) Diode c) Capacitor d) Inductor	K2	CO1
2	3	A CB amplifier is mainly used for: a) High-frequency applications b) High input impedance applications c) High voltage gain applications d) Power amplification	K1	CO2
	4	In a Common Source amplifier, the input is applied to the: a) Source terminal b) Gate terminal c) Drain terminal d) Substrate	K2	CO2
3	5	Which type of power amplifier is most suitable for RF (radio frequency) applications? a) Class A b) Class AB c) Class C d) Class D	K1	CO3
	6	Which of the following components is usually used to help reduce power dissipation in a transistor? a) Heat sink b) Capacitor c) Diode d) Inductor	K2	CO3
4	7	What type of feedback provides specific suggestions for improvement? a) Positive feedback b) Destructive feedback c) Evaluative feedback d) Constructive feedback	K1	CO4
	8	Which of the following is a key advantage of voltage series feedback? a) Lower bandwidth b) Increased gain stability c) Reduced input impedance d) Decreased linearity	K2	CO4
5	9	Which type of oscillator is known for very high frequency stability? a) LC oscillator b) RC oscillator c) Crystal oscillator d) Wien bridge oscillator	K1	CO5
	10	A monostable multivibrator is also known as: a) Free-running multivibrator b) One-shot multivibrator c) Flip-flop d) Oscillator	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.	Explain the operation of a half-wave rectifier.	K2	CO1
	(OR)			
	11.b.	Infer in detail about the capacitor filters.		
2	12.a.	Summarize the classification of amplifiers.	K2	CO2
	(OR)			
	12.b.	Illustrate the function of a direct-coupled amplifier.		
3	13.a.	Assume the role of a Class A operation and its advantage.	K4	CO3
	(OR)			
	13.b.	Examine the stage efficiency in amplifiers.		
4	14.a.	Categorize the operation of negative feedback.	K4	CO4
	(OR)			
	14.b.	Discover the role of voltage shunt feedback with applications.		
5	15.a.	Analyze the function of the phase shift oscillator.	K4	CO5
	(OR)			
	15.b.	Classify and explain the working principle of a bistable Mutivibrator.		

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	Organize the concepts of clipping and clamping circuits with a neat diagram.	K3	CO1
2	17	Show and explain the role of the common source FET amplifier.	K2	CO2
3	18	Identify the function of Class AB operation.	K3	CO3
4	19	Classify the operation of the current shunt feedback.	K4	CO4
5	20	Explain the operation of the monostable multivibrator with suitable examples.	K2	CO5

Z-Z-Z

END