PSG COLLEGE OF ARTS & SCIENCE (AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2022

(Third Semester)

Branch - ELECTRONICS

ELECTRONIC CIRCUITS

Time: Three Hours		Maximum: 75 Marks	
	SECTION-A	<u> 10 Marks)</u>	
	Answer ALL		
	ALL questions carry E	QUAL marks $(10 \times 1 = 10)$	
1.	Transformer utilization factor of a half wave rectifier is equal to		
	a) 0.267	b) 0.287	
	c) 0.297	d) 0.256	
2.	Efficiency of half wave rectifier is		
~.	a) 50%	b) 81.2%	
	c) 40.6%	d) 45.3%	
2	A JFET is also called transisto	yr ei Boll (1905) sa saile ann an Franch (1905).	
۶.	a) unipolar	b) bipolar	
	c) unijunction	d) none of the above	
4.	The gate of a JFET is biased		
	a) reverse	b) forward	
	c) reverse as well as forward	d) none of the above	
5	The main features of a large-signal amplifier is the circuit's		
J.	a) power efficiency	b) maximum power limitations	
	c) impedance matching to the output device		
•	What is the ratio of the secondary voltage t	o the primary voltage with the turn ratio in	
ο.	the windings?	the printary volumes when the	
	— · · · · · · · · · · · · · · · · · · ·	b) $(N_1/N_2)^2$	
	a) N_2/N_1 c) $(N_1/N_2)^{1/3}$	d) $N_1 \times N_2$	
7.	When negative voltage feedback is applied	to an amplifier, its voltage gain	
	NY 1 mail 1	b) Is reduced	
	a) Is increasedc) Remains the same	d) None of the above	
8.	The value of negative feedback fraction is	always	
	a) Less than 1	b) More than 1	
	c) Equal to 1	d) None of the above	
9.	A multivibrator is an electronic circuit use	d to implement	
	a) Oscillator	b) Timer	
	c) Flip-flop	d) All of the Mentioned	
10). Multivibrators are characterized by	1) Consistent	
	a) Registers	b) Capacitors	
	c) Transistors	d) All of the Mentioned	

Cont...

18ELU10 Cont...

SECTION - B (25 Marks)

Answer ALL questions ALL questions carry EQUAL Marks $(5 \times 5 = 25)$

11 a Analyze Ripple Factor.

OR

- b Describe short note on Clipping and Clamping.
- Explain about CE Amplifier.

OR

- Explain about Frequency Response.
- Describe the Power Dissipation.

- Sketch the Distortions with examples.
- Sketch the Negative feedback with diagram. 14 a

- Show the Current series feedback.
- Explain about Wien Bridge Oscillator.

Bring out on UJT Relaxation Oscillator.

SECTION -C (40 Marks)

Answer ALL questions ALL questions carry EQUAL Marks

 $(5 \times 8 = 40)$

Compare the Half wave and Full Wave with Example.

- Enumerate the feature of Rectification Efficiency.
- Examine the Multistage Response.

- Identify Point out the FET amplifier with Neat diagram.
- Summaries the Complementary pair operation. 18 a

- Compare with Class A and Class B Operation.
- Classify the Bandwidth with Example.

- Enumerate the feature Voltage Series feedback.
- Classify about Astable Multivibrator.

Justify the Bistable Multivibrator.

END