

## Faculty of Sciences

**B.Sc. (Electronics) II-Year, CBCS-III Semester Examinations 2018-19****PAPER: ANALOG CIRCUITS**

Time: 3 Hours

Max Marks: 80

**Section-A**

I. Answer any FIVE of the following questions (5x4=20 Marks)

1. Distinguish between half wave, full wave and bridge rectifiers in terms of efficiency and ripple factor.
2. What is a filter? Briefly explain choke filter.
3. Draw block diagram of regulated power supply.
4. Write about principle of SMPS.
5. Classify various types of amplifiers.
6. What is the effect of negative feedback on gain of amplifier?
7. Explain Barkhausen criterion for sustained oscillations.
8. What is a multivibrator? List its applications.

**Section-B**

II. Answer the following questions (4x15=60 Marks)

9. (a) Construct a bridge rectifier and determine its efficiency.

(OR)

- (b) Explain how efficiency of a rectifier is improved by adding a
- $\pi$
- section filter.

- 10.(a) Write about working and principle of a UPS.

(OR)

- (b) Explain the functioning of a shunt transistor regulated power supply.

- 11.(a) Obtain frequency response of an RC coupled amplifier and analyze.

(OR)

- (b) Draw circuit of Darlington pair and explain its working.

- 12.(a) Construct an RC phase shift oscillator and analyze.

(OR)

- (b) Explain working of a Bistable multivibrator. What are its advantages?

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