

Faculty of Science
B. Sc (Electronics) II-Year, CBCS-III Semester
Regular Examinations, Dec/Jan 2019-20
PAPER: ANALOG CIRCUITS

Time: 3 Hours

Max Marks: 80

Section-A

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

1. Describe the working of half-wave rectifier.
2. Compare the merits of L-section and Π -section filters.
3. Explain the working of Switch Mode Power Supply (SMPS)
4. What is shunt transistor?
5. Briefly explain the hybrid Π -model of a transistor.
6. List the advantages of negative feedback.
7. Explain the Barkhausen criterion for oscillations.
8. Distinguish between Hartley and Colpitt's Oscillator.

Section-B

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

9. (a) Describe the construction and working of bridge rectifier
(OR)
(b) Define filter. Explain about choke input filter and shunt capacitor filter.
- 10.(a) Explain regulated power supply using block diagram.
(OR)
(b) Explain the working of three terminal IC regulators (78XX)
- 11.(a) Draw the circuit diagram of R-C coupled CE- transistor amplifier and discuss it's working.
(OR)
(b) Discuss about Darlington pair and list its advantages.
- 12.(a) Describe Hartley oscillator. Calculate the frequency of oscillations.
(OR)
(b) Give the circuit diagram of mono -stable multivibrator and explain its working.
