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**UNIVERSITY**

(Karunya Institute of Technology & Sciences)

(Declared as Deemed-to-be University under Sec.3 of the UGC Act, 1956)

Reg.No. \_\_\_\_\_\_\_\_\_\_\_\_\_

**End Semester Examination – Nov/Dec - 2016**

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|  |  | **Semester :** | **2016-17 ODD** |
| **Code :** | **11MT212/12MT216** | **Duration :** | **3 hrs** |
| **Sub. Name :** | **ANALOG ELECTRONICS CIRCUITS - II** | **Max. marks :** | **100** |

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| **Q. No.** | **Questions** | **Marks** |
| **PART-A (10X1=10 MARKS)** | | |
| 1. | List down any two types of feedback amplifier. | (1) |
| 2. | An amplifier that provides the current output proportional to the signal current is called as \_\_\_\_\_\_\_\_\_\_\_. | (1) |
| 3. | Draw the basic RC circuit. | (1) |
| 4. | What is meant by Barkhausen Criterion? | (1) |
| 5. | Mention any two types of tuned amplifiers. | (1) |
| 6. | Define Power gain. | (1) |
| 7. | Mention any two types of Multivibrators. | (1) |
| 8. | What is the other name for scale-of-2 toggle circuit? | (1) |
| 9. | Mention any two types of Astable blocking oscillator. | (1) |
| 10. | What is a monostable blocking oscillator? | (1) |

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| **PART B(5 X 3= 15 MARKS)** | | |
| 11. | Explain: Current Amplifier. | (3) |
| 12. | List down the advantages of R-C phase shift oscillator. | (3) |
| 13. | What type of amplifiers is called as synchronously tuned amplifiers? | (3) |
| 14. | Explain: Schimit Trigger circuit | (3) |
| 15. | Compare Diode controlled circuit with RC controlled circuit. | (3) |

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| **PART C(5 X 15= 75 MARKS)** | | | |
| 16. | a. | Draw a neat block diagram of amplifier with Feedback and discuss in detail about Sampling, Feedback and Mixer Network. | (15) |
| (OR) | | | |
| 17. | a. | Discuss the steps to be carried out for the identification of the Feedback topology. | (15) |
| 18. | a. | With a neat diagram explain the features of Wein Bridge Oscillator. Mention its Advantages and Disadvantages also. | (15) |
| (OR) | | | |
| 19. | a. | What are the factors that affect the frequency stability of an oscillator? What modifications can be carried out for getting frequency stability? | (15) |
| 20. | a. | What is a tuned amplifier? Draw the typical frequency response of a tuned amplifier and discuss its important features. | (15) |
| (OR) | | | |
| 21. | a. | Mention the advantages and Disadvantages of Tuned amplifiers. Mention and explain briefly any three applications of Tuned amplifier. | (15) |
| 22. | a. | With a neat diagram discuss the working of Fixed bias bistable multivibrator. List down any 5 applications of the bistable multivibrator. | (15) |
| (OR) | | | |
| 23. | a. | What are Multivibrators? Classify and explain in detail the different types of multivibrators. | (15) |
| 24. | a. | With a neat diagram explain Monostable Blocking oscillator using emitter timing. | (15) |
| (OR) | | | |
| 25. | a. | Compare diode controlled and RC controlled astable blocking oscillators by stating their advantages and limitations. | (15) |

ALL THE BEST