



Reg. No. :

Name :

**Combined First and Second Semester B.Tech. Degree
Examination, April 2016
(2008 Scheme)**

08 – 109 : BASIC COMMUNICATION AND INFORMATION ENGINEERING

Time : 3 Hours

Max. Marks : 100

PART – A

Answer **all** questions. **Each** question carries **4** marks.

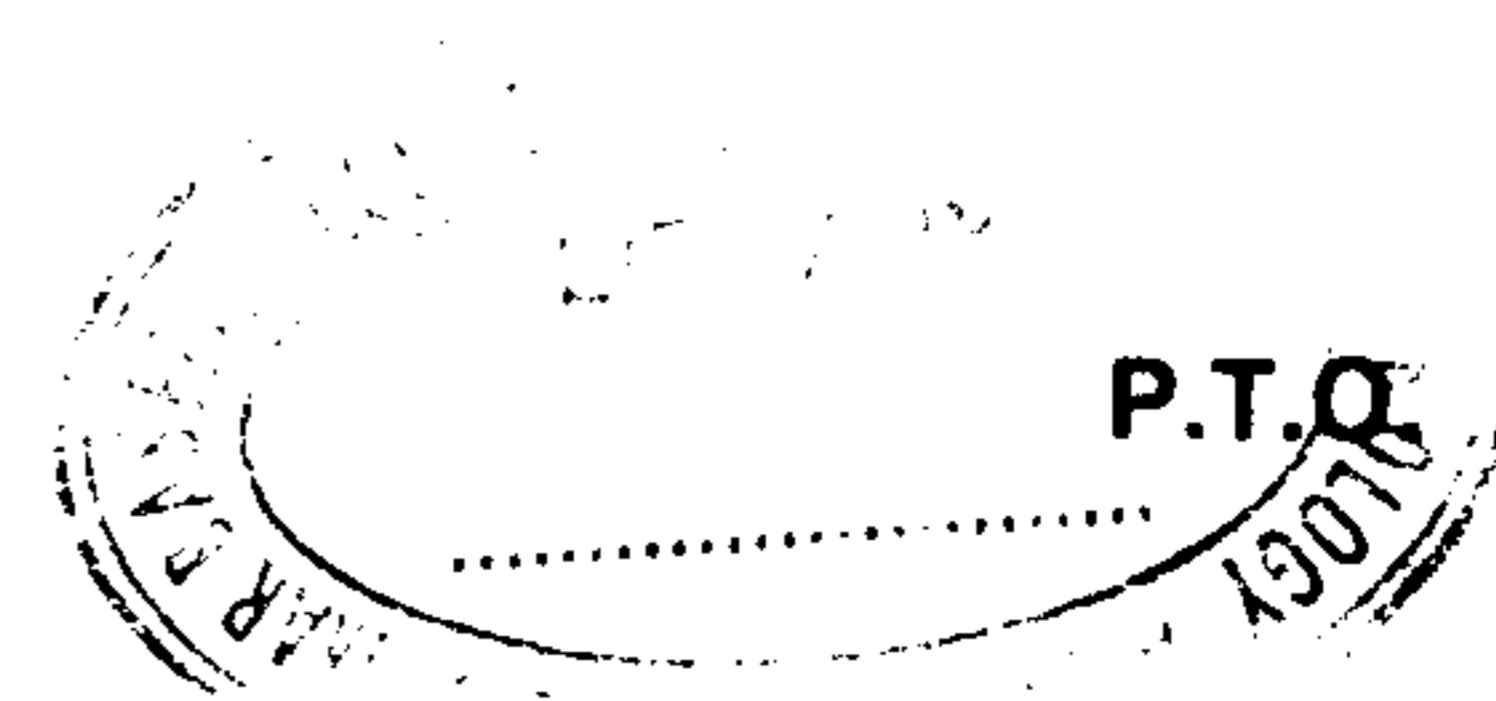
1. Compare NPN and PNP transistors.
2. Discuss the basic principle of JFET.
3. Explain the working of class C amplifier.
4. Explain the functional block diagram of operational amplifier.
5. Compare AM and FM.
6. Discuss the basic principles of HDTV.
7. Explain the block diagram of optical communication systems.
8. Discuss the working of GPS.
9. Discuss the typical structure of URI.
10. Discuss the functions of different network devices used in a computer network.

PART – B

Answer **any 2** questions from **each** Module. **Each** question carries **10** marks.

Module – I

11. Find the current gain, voltage gain, input and output resistance of common emitter configuration.
12. Explain the working of class A amplifier and find out its efficiency.
13. Explain various process of IC fabrication.





Module – II

14. Explain the working principle of radar. Derive the radar range equation and discuss the factors affecting the range.
15. Discuss the principle of digital storage oscilloscope with diagram.
16. Explain the concept of satellite transponder. Discuss the block diagram of earth station transmitter and receiver.

Module – III

17. List the features of 8085 microprocessor. Draw the functional block diagram of 8085 and explain the functions of each block.
 18. List the advantages of digital mode of transmission over analog. Also explain the different methods used for digital modulation with waveforms.
 19. What is the concept of cellular communication and explain the operation with GSM architecture.
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