

Code: 17ECMC1T5A

I M.Tech-I Semester-Regular Examinations-February 2018

**COGNITIVE RADIO
(MICROWAVE & COMMUNICATION ENGINEERING)**

Duration: 3 hours

Max. Marks: 60

Answer the following questions.

- 1.a) Explain real time processing stream in signal processing of a software radio. 8 M
- b) Explain the key points in on-line adaptation. 7 M
- (OR)
- 2.a) Explain the Architecture of Infrastructure layer and platform layer. 8 M
- b) Discuss the critical Acquisition parameters. 7 M
- 3.a) Explain stack protocols using mapped SDR. 8 M
- b) Explain the Radio Resource Management Network. 7 M
- (OR)
- 4.a) Explain the function of a Software defined Radio. 8 M
- b) What is a Spectrum and explain the dynamic spectrum access? 7 M

- 5.a) What is the need of a cognitive Radio? 8 M
- b) What are the capabilities of a Cognitive radio? 7 M
- (OR)
6. Neatly explain in detail about software defined Radio. 15 M
- 7.a) Explain the security issues in a cognitive radio. 8 M
- b) What is the advancement in next generation network? 7 M
- (OR)
8. Explain briefly about digital hardware and their standards. 15 M