

VINAYAKA MISSIONS RESEARCH FOUNDATION
(Deemed to be University)
M.E -DEGREE EXAMINATIONS - FEB-2022
EMBEDDED SYSTEM TECHNOLOGY
Third/Fifth Semester
ELECTIVE – ADVANCED WIRELESS NETWORKS
(Candidates admitted under 2017 Regulations-CBCS)

Time : Three Hours

Maximum Marks:100 Marks

Answer **ALL** questions
Part-A (10 x 2 =20 Marks)

- 1 Define Radio Access Technology (RAT).
- 2 Mention the concept of OFDM.
- 3 Define Internal Collision.
- 4 Mention the need of a Schedule Table.
- 5 Define Serial Timeout.
- 6 Define Cross layer Optimization in Wireless Sensor Networks.
- 7 What is the function of IERP?
- 8 Define Success Ratio.
- 9 Define ISM Frequency band& mention its Frequency range.
- 10 Define Sybil attack.

PART-B (5 x 16 = 80)

- 11 a. Discuss about Protocol Boosters with suitable Examples.
OR
b. Summarize on OFDM with necessary diagrams.
- 12 a. Describe on MAC for Wireless Sensor Networks.
OR
b. Elaborate on Graph, Directed Graph, Undirected Graph, Weighted Graph, Degree of a Vertex, Connected Graph and Tree with diagrams.
- 13 a. Describe on Random Early Detection Gateways for Congestion Avoidance.
OR
b. Enumerate on Mobility Management in Cellular Networkswith SS7 Signaling Network.
- 14 a. Describe about Hybrid Routing Protocol with focus on Look-back Termination &Early Termination.
OR
b. Discuss on
(a) Token-based Routing
(b) Delay-constrained Routing

(p.t.o)

15 a. Elaborate on Data Funneling.

OR

b. Discuss on

(a) Security Management in GSM

(b) Security Management in UMTS

Sl.No. 3036

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M.E -DEGREE EXAMINATIONS - FEB-2022

EMBEDDED SYSTEM TECHNOLOGY

Third/Fifth Semester

ELECTIVE – MEDICAL IMAGE PROCESSING

(Candidates admitted under 2017 Regulations-CBCS)

Time : Three Hours

Maximum Marks:100 Marks

Answer **ALL** questions

Part-A (10 x 2 =20 Marks)

- 1 What is imaging software?
- 2 What is Emission imaging?
- 3 What are the reconstruction methods for CT imaging?
- 4 What is the basic principle of computed tomography?
- 5 What are the advantages of digital fluoroscopy?
- 6 What is attenuation CT?
- 7 Which energy is used in MRI?
- 8 What is the wavelength of an MRI?
- 9 What is one disadvantage of MRI as a brain imaging technique?
- 10 Is breast MRI better than 3d mammogram?

PART-B (5 x 16 = 80)

- 11 a. Explain in detail about the use PET scan.

OR

- b. Narrate about fixed segmentation of a system.

- 12 a. Explain about the two projection geometries have been used in CT imaging

OR

- b. Derive the proof for central slice theorem. With an example

- 13 a. Define Visual recognition techniques.

OR

- b. Describe about the Iodine is a good CT contrast agent?

- 14 a. What is the best neuroimaging technique?

OR

- b. What are the different types of neuroimaging?

- 15 a. Explain about the Time required to obtain Images.

OR

- b. Describe about the Origin of Doppler shift.
