M.R.GOVERNMENT ARTS COLLEGE MANNARGUDI DEPARTMENT OF PHYSICS

M.Sc II Year MODEL EXAMINATION MARCH 2020

ADVANCED PHYSICS P 16 PY 42

TIME: 3 Hrs

Max.Marks:75

PART A: ANSWER ALL THE QUESTIONS (10x2 = 20 Marks)

- 1. What are the end products of a star?
- 2. List the importance of 21 cm line in RA.
- 3. Distinguish PSLV and GSLV.
- 4. Expand: INSAT, IRS, VSAT and METSAT.
- 5. What is bone conduction?
- 6. What are resting potentials?
- 7. Distinguish CS and PCS.
- 8. What is information security?
- 9. What is Ethernet Bridge?
- 10. What are LEO and MEO satellite orbits.

PART B: ANSWER ALL THE QUESTIONS (5x5 = 25 Marks)

- 11. Enumerate the future prospects of Universe.(OR) Discuss RA in India.
- 12. Describe the use of INSAT in broadcasting services.(OR) Discuss the achievements of ISRO.
- 13. Explain the working of principle and usesEEG.(OR) Write a note on Cochlear implants.
- 14. Describe GSM infrastructure.(OR) Explain FAX.
- 15. Explain the process involved in Paging.(OR) Explain wireless packet data services.

PART C: ANSWER ANY THREE QUESTIONS (3x10 = 30 Marks)

- 16. Explain major discoveries in RA.
- 17. Explain the role of IRS in the planning.
- 18. Explain i) Elecrophysiology and ii) Haemodialysis.
- 19. Explain IMTS and AMPS control systems.
- 20.Explain communication satellites.

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TIME: 3 Hrs

Max.Marks:75

PART A: ANSWER ALL THE QUESTIONS (10x2 = 20 Marks)

- 1. What are pulsars?
- 2. What do you mean expanding Universe?
- 3. What are meteorological satellites?
- 4. List the advantages of remote sensing satellites.
- 5. What is masking?
- 6. Mention few cardiac and blood related devices.
- 7. What are IMTS and AMPS?
- 8. List the advantages of personal communication system.
- 9. What is Blutooth?
- 10. List the satellite orbits.

PART B: ANSWER ALL THE QUESTIONS (5x5 = 25 Marks)

- 11. Write a note on Expanding Universe.(OR) Explain synchrotron radiation.
- 12. Describe launching program.(OR) What is GIS? Explain its applications.
- 13. Explain the working of pacemakers .(OR) Describe Haemodialysis.
- 14. Compare modulation schemes.(OR) Explain CDPD.
- 15. Write a note on communication satellites.(OR) Explain IR modems.

PART C: ANSWER ANY THREE QUESTIONS (3x10 = 30 Marks)

- 16. Explain the life cycle of stars.
- 17. Explain methodological issues in cost beneficial analysis of space program.
- 18. Explain any two hearing aids and Cochlear implants.
- 19. Elaborate cell site equipments.
- 20.Explain the applications of wireless services in globe.