

STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI – 600 086.
(For candidates admitted during the academic year 2008-09 & thereafter)

SUBJECT CODE : PH/ME/BM54

B.Sc. DEGREE EXAMINATION NOVEMBER 2012
BRANCH III - PHYSICS
FIFTH SEMESTER

COURSE : MAJOR – ELECTIVE
PAPER : BIOMEDICAL PHYSICS
TIME : 3 HOURS

MAX. MARKS : 100

SECTION - A

ANSWER ALL QUESTIONS: (10x3=30)

1. What are X-rays who discovered it?
2. Draw an X-ray film and label its parts.
3. Differentiate ultrasound and Infrasound
4. What is a transducer?
5. Draw a nerve cell and label its parts.
6. What is EEG?
7. What is radioactivity?
8. Explain half life.
9. Mention three laws used in fluid transport.
10. How is BP measured?

SECTION – B

ANSWER ANY FIVE QUESTIONS: (5X6=30)

11. State any five properties of x rays.
12. Explain the use of stethoscope with a neat diagram.
13. Comment on the various leads used in ECG.
14. Explain working of PET.
15. Explain pulmonary test instruments.
16. Explain MUGA Scan.
17. Explain Oxygen hemoglobin dissociation.

SECTION – C

ANSWER ANY TWO QUESTIONS: (2X20=40)

18. Explain working of CT and how the image is processed.
19. Briefly explain ultrasound imaging in medicine.
20. Explain ECG and EEG.
21. Explain radioactivity and explain how various radiation interact with matter.
