**EXERCISE PHYSIOLOGY 1**

1. Why do fats have many more calories than carbohydrates?
2. **They contain many more potential acetyl groups to enter Krebs cycle**
3. They have more bonds from which to extract energy
4. They produce much more ATP in glycosis
5. They are smaller than carbohydrates.
6. One of the following statements concerning the role of calcium in the contraction of skeletal muscle is correct. Which one is it?
7. The tension of a skeletal muscle fibre is partly regulated by proteins.
8. Calcium entry across the plasma membrane is important in sustaining the contraction of skeletal muscle
9. The mitochondria acts as a store of calcium for the contractile process
10. **A rise in intracellular calcium allows actin to interact with myosin**
11. Fatuma, a 25 year old female and a student at Mombasa Polytechnic, was diagnosed with asthma at the age of 18 years. She has been advised by her physician to include physical training as part of her management of asthma. As a physiotherapist, what would be one of your aims of giving the training?
12. Reduce the incidence of exercise induced asthma
13. **Increase maximum work capacity**
14. Increase the maximum exercise ventilation
15. Increase the maximum voluntary ventilation
16. Referring to the above question, what would you improve in Fatuma if you gave regular physical training?
17. Peak expiratory flow rate
18. Vital capacity
19. Forced expiratory volume in one second
20. **Maximal oxygen uptake**
21. A boxer preparing for a tournament does a lot of heavy exercises and the body responds by demanding a lot of oxygen. Which part of the body consumes the greatest amount of oxygen?
22. Brain
23. **Skeletal muscle**
24. Liver
25. Kidney
26. Which of the following exercises is predominantly anaerobic
27. Jogging
28. Swimming
29. Stair climbing
30. **Weight lifting**
31. Which of the following components of fitness is defined as the body’s ability to sustain prolonged exercise
32. Muscle endurance
33. Body composition
34. **Cardiorespiratory endurance**
35. Muscle strength
36. When a muscle is exercised, there is increased blood flow. Which is the major cause of the Increase in blood flow?
37. **Accumulation of metabolites**
38. Muscle pumping
39. Parasympathetic stimulation
40. All the above
41. Mr. Jomo has an obese girlfriend and they have been trying to shed off some weight through diet and physical activity with no much success. Which of the following would make it difficult for this obese girl to lose weight?
42. An increase in metabolism that increases appetite
43. An increase in heat loss from the body that requires more food intake
44. **An increase in alpha receptors in fat cells**
45. An increase in thyroxin levels as fat levels accumulate
46. The process of cellular respiration………….
47. Exclusively uses reduction reactions
48. Requires more energy input than is released
49. **Releases energy stored in chemical bonds**
50. All of the above