MUSCLE CONTRACTION

1. Which band of the sarcomere decreases in length during the contraction of a skeletal muscle fiber?
2. A cross-sectional view of a skeletal muscle fiber through the H zone would reveal the presence of what part of myofilaments?
3. Tetanic contraction of a skeletal muscle fiber results from a cumulative increase in the intracellular concentration of which of the substance?
4. The force produced by a single skeletal muscle fiber can be increased by what means?
5. Similarities between smooth and cardiac muscle include which of factor?
6. Cardiac muscle is made up of which of elements?
7. The cross-bridges of the sarcomere in skeletal muscle are made up of
8. Initiation of an action potential in skeletal muscle by stimulating its motor nerve requires which of event?
9. Which is the specific characteristic feature for conduction of the action potential in skeletal muscle fiber?
10. What kind of fluid contain T tubules?
11. Troponin-tropomyosin complex is activated by which ion?
12. Skeletal muscle is made up which of units?
13. Similarities between skeletal and cardiac muscle include which of event?
14. What is meant by motor unit?
15. A single action potential of motor nerve gives rise what kind response?
16. The force developed by a skeletal muscle depends on the several factors. List them.
17. In the excitation-contraction coupling in skeletal muscle which factor play the trigger role?
18. During anaerobic glycolysis skeletal muscles accumulate H^+, lactate and phosphate ions. Increase concentration of these metabolites causes a decline in the development of tension known as:
19. Skeletal muscle contraction is terminated by which action?
20. Which characteristic or component is shared by skeletal muscle and smooth muscle?
21. Repeated stimulation of a skeletal muscle fiber causes a tetanus. Accumulation of which solute in intracellular fluid is responsible for the tetanus?
22. Explain the excitation-contraction coupling in skeletal muscle.
23. Explain the excitation-contraction coupling in cardiac muscle.
24. The excitation-contraction coupling in smooth muscle.
25. Match the source of Ca^{++} for smooth muscle
26. Describe the molecular characteristics of the myosin filament.
27. Describe the molecular characteristics of the actin filament.
28. describe the mechanism of Ca^{++} removing from the sarcoplasma
29. In skeletal muscle which of the following events occurs before T-tubules depolarization in the mechanism of excitation-contraction coupling?
30. Describe the sliding filament theory of muscle contraction.
31. A motoneuron and its associated skeletal muscle fibres are called as:
32. Describe the isotonic and isometric contractions.
33. List the factors the force of contraction depends on....
31. Action potentials of the motor nerve elicit contraction of which muscle?
32. Maximum tension is developed in skeletal muscle during a:
33. Describe the specific mechanism of smooth muscle contraction.

34. describe the design of contractile proteins in smooth muscle.
35. Match the complete and incomplete summation of muscle twitchs
36. Match the sources of energy for skeletal muscle contraction
37. Describe the relationship of preload, afterload and total load in the time course of an isotonic contraction.
38. Electromyography.
39. Match the effect of muscle length on the development of tension.
40. Describe the visceral smooth muscle action potentials.
41. Explain the mechanism of self-excitation in some smooth muscle.
42. Explain the mechanism of smooth muscle contraction without action potentials.