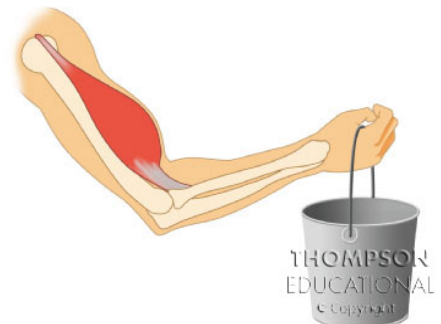
	Don Bosco Catholic Secondary School		
	PSE 4U1	Name:	
	Chapter 3-4 Test	Date:	
	Mr Notten, Apr 2015	K: /29	T: /9

Part A: Multiple Choice

[1 K mark each]

Circle the most correct answer.

- Which of the following types of muscle are **not** striated?
 - Skeletal
 - Smooth
 - Cardiac
 - Tendons
- The action of which of the following types of muscle are voluntary?
 - Skeletal
 - Smooth
 - Cardiac
 - Tendons
- When you want to contract your muscles, this type of cell passes the message from your brain to your muscles:
 - Bone cell
 - Muscle fiber
 - Neuron
 - Sarcomere
- The all-or-none principle states that
 - All motor neurons in your body fire at the same time
 - All muscle fibres connected by a motor neuron contract together
 - All muscle cells in a muscle fibre will contract together
- The biceps brachii **inserts** on which bone?
 - Scapula
 - Clavicle
 - Humerus
 - Radius
- If a person holding a bucket contracts their bicep so the bucket moves toward their chest, the bicep is said to experience this type of muscle contraction:
 - Concentric
 - Eccentric
 - Isometric
 - Isotonic



7. This type of exercise occurs when there is a contraction of a muscle but **no movement**:
- a) Isokinetic
 - b) Isometric
 - c) Isotonic
 - d) Eccentric
8. Which of the following is an antagonist of the quadriceps group?
- a) Hamstring group
 - b) Biceps brachii
 - c) Erector spinae group
 - d) Gastrocnemius
9. Which of the following refers to the property of a muscle's ability to shorten in length?
- a) Contractability
 - b) Elasticity
 - c) Extensibility
 - d) Conductivity
10. The primary function of rectus abdominis is
- a) Trunk elevation
 - b) Trunk depression
 - c) Trunk extension
 - d) Trunk flexion
11. When doing sit-ups which of the following muscles are primarily targeted?
- a) Biceps brachii
 - b) Pectoralis major
 - c) Quadriceps
 - d) Rectus abdominis
12. When doing push-ups which of the following muscles are primarily targeted?
- a) Biceps brachii
 - b) Pectoralis major
 - c) Quadriceps
 - d) Rectus abdominis
13. While you are working out, the immediate swelling of the muscles is referred to as
- a) Chronic hypertrophy
 - b) Transient hypertrophy
 - c) Muscle atrophy
 - d) Hyperplasia
14. Which of the following refers to a shrinking of muscle from disuse?
- a) Chronic hypertrophy
 - b) Transient hypertrophy
 - c) Muscle atrophy
 - d) Hyperplasia
15. Which of the following refers to the unit that shortens during muscle contraction?
- a) muscle fibre
 - b) sarcomere
 - c) endomysium
 - d) perimysium
16. Which of the following binds a group of muscle cells together?
- a) muscle fibre
 - b) sarcomere
 - c) endomysium
 - d) perimysium

17. According to sliding filament theory, the molecule that is released that starts the process of muscle contraction is
- a) ATP
 - b) actin
 - c) myosin
 - d) calcium
18. The role of troponin and tropomyosin in sliding filament theory are
- a) help actin and myosin touch
 - b) prevent actin and myosin from touching
 - c) give myosin chemical energy to make and break bonds with actin
 - d) give actin chemical energy to make and break bonds with myosin
19. The role of ATP in sliding filament theory is to
- a) help actin and myosin touch
 - b) prevent actin and myosin from touching
 - c) give myosin chemical energy to make and break bonds with actin
 - d) give actin chemical energy to make and break bonds with myosin
20. Which of the following joints is considered a ball and socket?
- a) knee joint
 - b) metatarsal joints
 - c) hip joint
 - d) radioulnar joint
21. Which of the following joints is considered a hinge joint?
- a) shoulder
 - b) elbow
 - c) carpals
 - d) thumb joint
22. Which of the following joints is considered a pivot joint?
- a) neck
 - b) shoulder
 - c) carpals
 - d) ankle
23. Tough bands of white, fibrous tissue that allow a certain amount of stretch between bones are called
- a) bursae
 - b) ligaments
 - c) tendons
 - d) cartilage
24. Which of the following is considered a fibrous joint?
- a) Shoulder joint
 - b) Knee joint
 - c) Skull suture lines
 - d) Vertebral column

25. Which of the following is considered a cartilaginous joint?
- a) Shoulder joint
 - b) Knee joint
 - c) Skull suture lines
 - d) Vertebral column
26. This part of synovial joints protect neighboring bones from damaging each other
- a) Bursae
 - b) Tendon sheath
 - c) Joint capsule
 - d) Articulating cartilage
27. Which of the following tissues are *avascular* (not vascular)?
- a) Bones
 - b) Muscles
 - c) Ligaments
 - d) Arteries
28. This type of injury describes and inflammation of a tendon
- a) Tendinitis
 - b) Shin Splints
 - c) Cartilage damage
 - d) Strain
29. Having a larger Q-angle means
- a) You at more of a risk of knee injury
 - b) You at more of a risk of knee injury
 - a) You at more of a risk of hip injury
 - b) You at more of a risk of hip injury

Part B - Short answer: Fully answer the following questions

1. In a soccer game, your friend collides with another player and falls to the ground holding their knee and looks like they are in pain. It starts to swell and they are unable to move it. Describe the first aid you could use to treat them.

This question is worth 5 marks so have 5 different points!

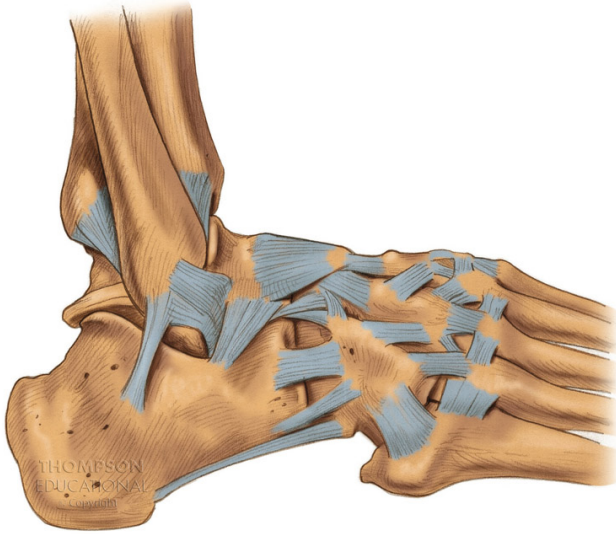
[5 T marks]

2. What is resistance training? Name 3 effects resistance training on muscles.

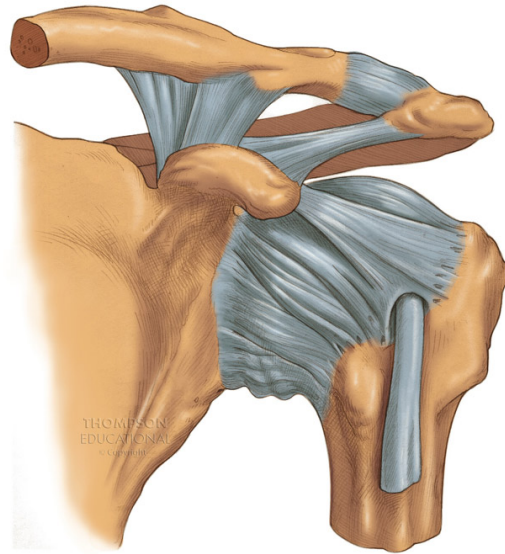
[4 T marks]

Part C: Labeling – Label all the following in the diagrams below. You can label them with their numbers!

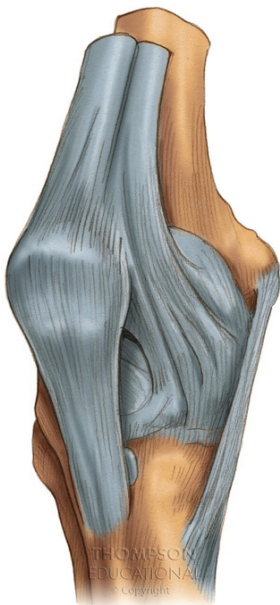
1. Coracoacromial ligament	5. Coracoclavicular ligament	9. Acromioclavicular ligament
2. Anterior cruciate ligament	6. Medial collateral ligament	10. Calcaneofibular ligament
3. Posterior cruciate ligament	7. Medial meniscus	11. Posterior tibiofibular ligament
4. Lateral meniscus	8. Patellar ligament	12. Anterior tibiofibular ligament



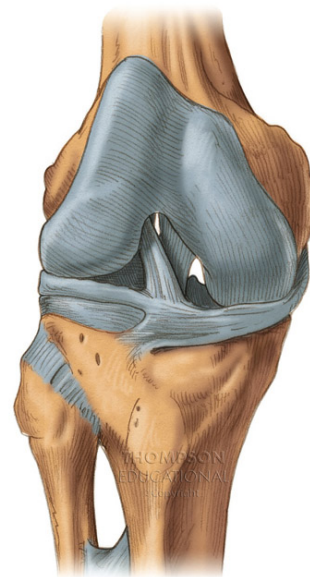
Ankle Joint – Medial View



Shoulder Joint – Anterior View



Right Knee Joint – Anterior View



Right Knee Joint - Anterior View (deep)