



قائمة الاسئلة

الميكانيكا الحيوية والكينزيولوجي 1 - () - المستوى الثاني - قسم العلاج الطبيعي - كلية الطب والعلوم الصحية - الفترة الخامسة - درجة الامتحان 70)

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- 1) Which of the following can be defined as the scientific study of human motion?
 - 1) Kinesiology
 - 2) Biomechanics
 - 3) Kinetics
 - 4) Kinematics
- 2) Which of the following best describes pushes or pulls on the body that arise from sources outside the body?
 - 1) Internal force
 - 2) Kinetics
 - 3) External force
 - 4) None of the above
- 3) What is the plane of anterior postrior head tilting?
 - 1) Sagittal
 - 2) Transverse
 - 3) Coronal / Frontal
 - 4) All of the above
- 4) What is the plane of lateral trunk bending?
 - 1) Sagittal
 - 2) Transverse
 - 3) Coronal / Frontal
 - 4) All of the above
- 5) What is the plane of all rotational Movements?
 - 1) Coronal / Frontal
 - 2) Transverse
 - 3) Sagittal
 - 4) All of the above
- 6) What axis is all rotational Movements?
 - 1) Sagittal / AP axis
 - 2) Vertical or Longitudinal Axis
 - 3) ML axis or Frontal / Horizontal
 - 4) None of the above
- 7) Which of the following is responsible for limiting the range of movements of joint?
 - 1) Tendons
 - 2) Ligaments
 - 3) Bones
 - 4) Cartilage
- 8) Where is the center of gravity located in the human body?
 - 1) Head
 - 2) Chest
 - 3) Feet
 - 4) Inerior to the second sacral vertebra(S2)
- 9) Which type of motion will a force couple always produce in an object?
 - 1) rotational
 - 2) translatory
 - 3) linear





- 4) - Oscillatory
- 10) Which of the following terms describes the strength of rotation produced by a force couple?
- 1) - shear force
 - 2) - friction force
 - 3) Torque
 - 4) - None of the above
- 11) Which type of muscle contraction is exemplified by activities such as walking and running?
- 1) - Isometric contraction
 - 2) Isotonic contraction
 - 3) - Isometric contraction and Isotonic contraction
 - 4) - None of the above
- 12) What type of muscle contraction occurs when the muscle shortens as tension increases?
- 1) - Isometric contraction
 - 2) Isotonic concentric
 - 3) - Isotonic eccentric
 - 4) - All of the above
- 13) Maintaining posture and holding objects in a fixed position are examples of which type of muscle contraction?
- 1) Isometric contraction
 - 2) - Isotonic contraction
 - 3) - flexion
 - 4) - extension
- 14) What is the term for the movement of a segment in a straight line?
- 1) - General motion
 - 2) - Rotatory motion
 - 3) Translatory motion
 - 4) - None of the above
- 15) which of the following terms describes a motion that combines translation and rotation of a segment in two dimensions?
- 1) - Rotatory motion
 - 2) Curvilinear motion
 - 3) - Translatory motion
 - 4) - None of the above
- 16) What is the term for an imaginary line that is perpendicular to a plane?
- 1) Axis
 - 2) - plane
 - 3) - line
 - 4) - All of the above
- 17) Which of the following is the unit for force in the SI system?
- 1) - Pound (Ib)
 - 2) Newton (N)
 - 3) - pascal (pa)
 - 4) - None of the above
- 18) Which of the following describes forces that act on the body but arise from sources within the human body?
- 1) - General force
 - 2) - External force
 - 3) Internal force
 - 4) - All of the above





- 19) What is the study of the body in a state of motion caused by unbalanced forces called?
- 1) - Statics
 - 2) Dynamics
 - 3) - Mechanics
 - 4) - None of the above
- 20) Which of the following describes forces applied to an object with action lines that lie at angles to each other?
- 1) - Lineae force system
 - 2) - Parallel force system
 - 3) - Tensile forces
 - 4) Concurrent force system
- 21) Which of the following describes opposite pulls acting on an object?
- 1) Tensile force
 - 2) - friction force
 - 3) - Compression force
 - 4) - Shear force
- 22) Which of the following describes forces that create separation of a joint surface?
- 1) - Friction forces
 - 2) - Compression forces
 - 3) - Shear forces
 - 4) Distraction forces
- 23) Which of the following terms describes the movement of a body segment in a straight line, often involving an increase in angle between body parts?
- 1) Extension
 - 2) - Flexion
 - 3) - Adduction
 - 4) - None of the above
- 24) Which muscle type is primarily responsible for locomation and body motion ?
- 1) - Cardic muscle
 - 2) - Smooth muscle
 - 3) Skeletal muscle
 - 4) - none of the above
- 25) What is the function of the anatomical pulley system in the human body?
- 1) Redirect force to make task easier
 - 2) - Magnify force
 - 3) - Magnify speed
 - 4) - None of the above
- 26) When a torsional force creates a rotation of a segment around its long axis, which type of motion does it produce?
- 1) - Linear motion
 - 2) Rotational motion
 - 3) - Translatory motion
 - 4) - All of the above
- 27) In the human body what is the fulcrum in a lever system?
- 1) - Bones
 - 2) - Muscle contraction
 - 3) - Tendons
 - 4) Joints
- 28) What is the function of Third - class lever?





- 1) provide increased speed and range of motion
 - 2) to magnify force
 - 3) acts to balance or change the direction of the effort force
 - 4) All of the above
- 29) In the human body what is the Effort in a lever system?
- 1) Ligament
 - 2) Tendons
 - 3) Muscle contraction
 - 4) Bones
- 30) Which type of lever has the effort applied at one end, the load at the other end, and the fulcrum positioned somewhere between them?
- 1) first class lever
 - 2) second class lever
 - 3) Third class lever
 - 4) None of the above
- 31) Which type of lever is most common in the body, particularly in most skeletal muscles?
- 1) first class lever
 - 2) second class lever
 - 3) Third class lever
 - 4) None of the above
- 32) Which type of lever that Provide great strength ?
- 1) first class lever
 - 2) second class lever
 - 3) Third class lever
 - 4) None of the above
- 33) What happens during isometric contraction?
- 1) Muscle length remains constant
 - 2) Muscle shortens
 - 3) Muscle lengthens
 - 4) Muscle relaxes
- 34) What will happen if the muscle fiber is allowed to completely relax and then restimulated ?
- 1) More tension
 - 2) Same tension
 - 3) Less tension
 - 4) None of the above
- 35) What is primary function of muscles in biomechanics ?
- 1) Force production
 - 2) Energy storage
 - 3) Joint flexibility
 - 4) Thermal regulation

