

Possible questions of the midterm exam -

- 1, Define the role of biomechanics !
- 2, Give the definition of the external biomechanics !
- 3, Give the definition of internal biomechanics !
- 4, Define the role of statics !
- 5, Define the role Strength of Materials !
- 6, Define the role of dynamics !
- 7, Give the definition of the path!
- 8, Give the definition of route!
- 9, Give the definition of displacement !
- 10, Give the definition of the relative angle !
- 11, Give the definition of the absolute angle !
- 12, Give the definition of relative angle !
- 13, Introduce Newton's I. law !
- 14, Introduce Newton's II. law !
- 15, Introduce Newton's III. law !
- 16, Introduce the Dempster model of center of gravity of the trunk !
- 17, Introduce the the Dempster model center of gravity of the leg !
- 18, Give the definition of elementary motion !
- 19, Give the definition of the complex motion !
- 21, Give the definition of set of motions !
- 22, Give the definition of posture !
- 23, Give the definition of changes of posture !
- 24, Give the definition of changes of position
- 25, Define the main phases of walking !
- 26, Give the definition of a step !
- 27, Give the definition of a step-cycle!

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28, List the measurable time-distance parameters during the gait analysis.

29, List the measurable angle-like parameters during the gait analysis.

~~30, List the investigations according to the method!~~

~~31, List the investigations according to the type!~~

~~32, List the vitro investigations according to the type!~~

33, Draw a stress-deformation diagram of normal bone

34, Draw the stress-deformation diagram of the cortical and spongy bone!

35, List the steps of markerbased- RSA !

36, List the steps of the model-based RSA !

~~37, Introduce the tools used for measuring the length?~~

39, Introduce the markerbased optical motion analysis systems!

Calculations

1

2

3

-----Practice-----

Describe the measured parameters, applied devices in case of:

a, Gait analysis

b, Stability investigation

c, Reaction force measuring on treadmill

d, Spine Analysis

e, Motion capturing with camcorder