SWAMI VIVEKĀNANDA YOGA ANUSANDHĀNA SAMSTHĀNA

स्वामी - विवेकानन्द - योगानुसन्धान - संस्थानम्

A University, established under Section 3 of the UGC Act, 1956
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MDY T - BIOMECHANICS

Date: 23.05.2012 Time: 10.00 am – 1.00pm Max. Marks: 100

I. Essays: Write ANY TWO of the following
15*2=30

1. Write in detail about the biomechanical variables of final posture of Arda chakrasana. How to improve the balance of Parkinsonism participant with this asana.
2. Write about the static & dynamic stability of shoulder joint at rest & movement.
3. Write about the acute Low back pain & treatment plan with respect to posture & biomechanics

II. Short Answers: Write ANY SEVEN of the following **5*7=35**

a. Explain the lever system with examples
b. Write about variables of Kinematics
c. Describe about the balance in veerabadrasana
d. Write about the Line of gravity & its uses
e. Physiological effects of final posture of Ardhakati chakrasana
f. Write about the phases of gait & its importance in Right Hemiplegia
g. Write about stretch & uses.
h. Define force & write about different types of forces
i. Write about structure of Vertebral column of an adult

III. Match the following **1*5=5**

1. LOG	a. Flexion & extension
2. Equilibrium	b. Isotonic
3. Internal force	c. External force
4. Length of the muscle changes	d. Stationary
5. Saggital plane	e. Muscle contraction

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IV. Write short notes: ANY TEN of the following **3*10=30**

a. What is coronal plane? Write the movements
b. What is segmental gravity
c. Write about importance of prone posture
d. Which side lying is best for increasing the PaO_2
e. Write about sciccering gait
f. What is scoliosis? Write about the causes
g. What is lordosis? Write about the changes in Pregnant women
h. Types of Joints
i. Importance of EMG
j. Sliding theory
k. How to examine the joint positions
l. Explain the different types of equilibrium