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MDS 552

IV Semester M.P.Ed. Examination, September 2022
PHYSICAL EDUCATION
Biomechanics and Kinesiology

Time : 3 Hours

Max. Marks : 70

Instructions : 1) Answer *all* questions.

2) *Each* answer shall **not** exceed **six** pages.

1. Write the meaning of the terms 'Kinematics', 'Acceleration' and 'Force'. Add a note on parallelogram of forces. **15**

OR

Explain the various types of fundamental joint movements with suitable examples. **15**

2. Explain the role of agonists, antagonists and synergists during muscle activity with suitable example. **15**

OR

Write a note on locations, attachments and actions of following muscles :

a) Triceps brachii

b) Rectus femoris

c) Rectus abdominus. **15**

3. Explain the factors affecting horizontal range of projectile. **15**

OR

Explain Newtons laws of acceleration and reaction with suitable examples. **15**

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4. What are the factors affecting stability ? Explain with suitable examples. **15**

OR

Describe the kinesiological and biomechanical analysis of pace bowling in cricket. **15**

5. Write short notes on **any two** of the following : **(5×2=10)**

- a) Motor units
 - b) Factors affecting force of muscle contraction.
 - c) Projectile motion.
 - d) Tools of movement analysis.
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