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**BRAINWARE UNIVERSITY**

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Term End Examination 2025-2026**Programme – B.Physiotherapy-2021/B.Physiotherapy-2022/B.Physiotherapy-2023/B.Physiotherapy-2024****Course Name – Exercise Therapy - II****Course Code - BPTC302****(Semester III)****Full Marks : 60****Time : 2:30 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A**(Multiple Choice Type Question)****1 x 15=15****1. Choose the correct alternative from the following :**

- (i) Select the attribute which is improved by low resistance high repetition exercise
- | | |
|-------------|------------------|
| a) Strength | b) Endurance |
| c) Volume | d) Co-ordination |
- (ii) Write the glide to increase shoulder abduction
- | | |
|-----------|------------|
| a) AP | b) PA |
| c) Caudal | d) Ventral |
- (iii) Identify the equilibrium test
- | | |
|--------------------|-----------------------|
| a) Tandem standing | b) Finger to Nose |
| c) Finger to nose | d) Rebound phenomenon |
- (iv) Identify the value of 1 MET.
- | | |
|---------------------|-------------------|
| a) 3.5 ml / kg/ min | b) 3 ml / kg/ min |
| c) 4 ml / kg/ min | d) 5 ml / kg/ min |
- (v) Tell which stretching method involves contracting a muscle against resistance for a set period and then stretching it further during relaxation.
- | | |
|-----------------------|-------------------------|
| a) Dynamic stretching | b) Ballistic stretching |
| c) PNF stretching | d) Static stretching |
- (vi) Determine the correct exercise parameter for a out patient cardiac rehabilitation with the beginning of the coronary disease.
- | | |
|----------------|--------------|
| a) Type (Mode) | b) Time |
| c) Frequency | d) Intensity |
- (vii) Choose the correct energy system which would primarily be utilised during a high intensity short duration activity such as sprinting for 10 second.
- | | |
|-------------------|----------------------|
| a) Aerobic system | b) Glycolytic system |
|-------------------|----------------------|

- c) Phosphagen system
d) Oxidative system
- (viii) Interpret the expected physiological response during multistage fitness test, when the subject shows a steady increase in heart rate with each stage.
a) Aerobic efficiency
b) poor cardiovascular health
c) Increased oxygen delivery to muscles
d) Metabolic acidosis
- (ix) State the plane divides the body into right and left, used to assess posture.
a) Coronal plane
b) Transverse plane
c) Sagittal plane
d) Frontal plane
- (x) Describe the correct exercise can be used to correct a lumbar lordosis.
a) Stretching of lower back and hamstrings
b) Strengthening of hip flexors
c) Stretching of Quadriceps
d) Strengthening the chest muscles
- (xi) Illustrate the functional re-education exercise for a bedridden patient in assisting with bed mobility.
a) Squat exercise
b) Bridging exercise
c) Shoulder stretches
d) Wall push ups
- (xii) Identify the contraindication for traction therapy.
a) Ligamentum stability
b) Spinal instability
c) Muscle strain
d) Infection
- (xiii) Select the pathway of line of gravity
a) Vertex to right feet
b) Vertex to mid point of right and left feet
c) Vertex to left feet
d) Vertex to big toe
- (xiv) Identify the principal extensor of the thigh in an upright position
a) Hamstrings
b) Gluteus minimus
c) Gluteus medius
d) Gluteus maximus
- (xv) Determine the type of exercise does a Swiss ball primarily facilitate.
a) Cadance
b) Balance and stability
c) Strength training
d) Respiratory exercise

Group-B

(Short Answer Type Questions)

3 x 5=15

2. Determine the contraindications of stretching exercises. (3)
3. Prepare the posture correction exercise for forward head and kyphosis. (3)
4. Rewrite about the maximum oxygen consumption and cardiorespiratory endurance. (3)
5. Explain the DAPRE method for resistance training. (3)
6. Illustrate the Grades of Movement for Non-Thrust techniques by Maitland's concept. (3)

OR

Illustrate the uses of Kaltenborn mobilization with an example. (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

7. Illustrate the steps for inferior radioulnar joint's dorsal and volar glides. (5)
8. Interpret the characteristics of Open-Chain and Closed-Chain exercises. (5)
9. Explain the procedure for flexion and extension of hip joint using suspension therapy. (5)
10. Explain the physiological adaptations of resistance training in muscle performance and other systems. (5)
11. Explain the advantages & disadvantages of Group therapy. (5)
12. Illustrate the fatigue in response to resistance training in different muscle fibres types. (5)

OR

Plan an aerobic exercise plan for diabetes individual of 59 years of old man. (5)