Portland Community College  
PE 182 A & PE 182 B  Beginning & Intermediate Aerobics  
Mind/Body Movement - Nia  

Take Home Exam

Your Name: _______________________________________

Print this file. Read each question and the respective answer options slowly and carefully. Select and clearly check-mark the best answer. Turn in on the due date.

1. DOMS stands for
   ◊ Delayed Overload Muscle Syndrome  
   ◊ Damaged Overloaded Muscle Symptom  
   ◊ Damage Or Misuse Syndrome  
   ◊ Delayed Onset Muscle Soreness

2. The natural sequence for a step is
   ◊ heel lead – place toes – roll through arches – shift weight  
   ◊ place foot – shift weight – lift heel – swing  
   ◊ heel strike - mid stance – heel off - toe off – swing  
   ◊ heel lead – place foot – swing – shift weight

3. When looking at it from the side the normal spine has an "S"-like curve.
   ◊ the cervical spine curves slightly inward, the thoracic curves outward, the lumbar curves inward, and the sacrum curves outward  
   ◊ the thoracic spine curves slightly inward, the cervical curves outward, the lumbar curves inward, and the sacrum curves outward  
   ◊ the servical spine curves slightly inward, the thoracic curves outward, the lumbago curves inward, and the sacred curves outward  
   ◊ the cervical spine curves slightly inward, the thoracic curves outward, the lumbar curves inward, and the intervertebral discs curve outward

4. The muscle groups that make up our PowerHouse are:
   ◊ obliques – rectus abdominis – transversus abdominis – stomach muscles - pelvic floor muscles - diaphragm  
   ◊ obliques – rectus abdominis – abdominal muscles – stomach muscles – pelvic floor muscles - diaphragm  
   ◊ external obliques – internal obliques – rectus abdominis – transversus abdominis – pelvic floor muscles - kegels  
   ◊ external obliques – internal obliques – rectus abdominis – transversus abdominis – pelvic floor muscles - diaphragm
5. The best way to train (strengthen) the PowerHouse is
   ◊ the Valsalva manoeuvre, which is holding the breath after a full inhale
   ◊ doing at least 100 crunches every morning
   ◊ forceful exhalation with vocalization such as Martial Arts Yell, Yipping or Shouting “yes!”
   ◊ the Heimlich manoeuvre, which is holding the breath after a full exhale, then “gasping” for breath when you can’t keep holding the breath

6. The 206 bones of the body fall into four general categories:
   ◊ head, chest, pelvis and extremities
   ◊ long bones, short bones, flat bones, and irregular bones
   ◊ axial bones, appendicular bones, cortical bones and cancellous bones
   ◊ long bones, compact bones, spongy bones and irregular bones

7. Osteoporosis is a bone disease which is characterized by a thinning of bone tissue, causing bones to become weak, brittle, and prone to fractures. Factors contributing to Osteoporosis include
   ◊ menopause, excess of high impact exercise, low calcium intake, smoking, use of steroid drugs, and excessive consumption of alcohol
   ◊ age, sex, amount of weight bearing exercise, low milk consumption, smoking, lack of steroid drugs, and excessive consumption of alcohol
   ◊ menopause, lack of exercise, low calcium intake, smoking, use of steroid drugs, and excessive consumption of alcohol
   ◊ lack of sufficient calcium, phosphorus, and vitamins C and D; growth hormone, parathyroid hormone and testosterone

8. A skeletal muscle is composed of:
   ◊ skeletal muscle tissue, ligaments, tendons, and connective tissues
   ◊ skeletal muscle tissue, nervous tissue, blood, and connective tissues
   ◊ musculo-skeletal tissue, smooth muscle tissue, ligaments, and tendons
   ◊ musculo-skeletal tissue, smooth muscle tissue, nervous tissue, and connective tissue

9. The following description of “motor unit” is the most appropriate:
   ◊ one motor neuron and one muscle fiber
   ◊ one motor neuron and several muscle fibers
   ◊ several motor neurons that control one muscle
   ◊ several motor neurons that control a muscle and its antagonist

10. Even when a muscle appears to be at rest, a certain amount of sustained contraction is occurring in a small fraction of the total number of its fibers. This is called
    ◊ muscle tone
    ◊ stretch reflex
    ◊ isometric contraction
    ◊ hypertrophy
11. Red blood cells are produced in the:
   ◊ heart
   ◊ bone marrow
   ◊ liver
   ◊ blood by cell division

12. The heart is composed primarily of
   ◊ smooth muscle tissue
   ◊ organ muscle tissue
   ◊ cardiac muscle tissue
   ◊ skeletal muscle tissue

13. To improve the level of cardio-respiratory fitness experts recommend consideration of four factors:
   ◊ aerobics, weight-training, nutrition and balance
   ◊ aerobic, anaerobic, interval and endurance exercise
   ◊ cardio, weight-bearing, stretching and breathing exercise
   ◊ type, frequency, duration and intensity of exercise

14. To calculate somebody’s target heart rate zone with the Karvonen method, the following information is needed:
   ◊ age, sex, resting heart rate
   ◊ VO₂ Max, heart rate reserve
   ◊ age, resting heart rate
   ◊ age, desired level of exertion

15. Nia is about
   ◊ watching my teacher and doing exactly as she does
   ◊ watching my classmates and doing exactly as they do
   ◊ being in my body and doing anything that feels good as long as I stay in proper form
   ◊ pushing myself even if it doesn’t really feel good so that I can get stronger, more flexible, and get my heart rate up

16. When doing Nia I can adjust my movement to increase my heart rate by
   ◊ adding bounces and little jumps, and adding hand-held weights
   ◊ increasing my range of movement, lifting my heels higher off on the steps
   ◊ increasing my range of movement, making my steps bigger and adding arm movement
   ◊ skipping the warm-up and stretches and instead adding another fast song

17. A typical Nia routine
   ◊ has a cardio section, a strengthening section, a stretching section and a meditation section
   ◊ has no strengthening moves, for that I have to take a Yoga class
   ◊ has no strengthening moves, for that I have to take a weight training class
   ◊ blends cardio moves, strengthening moves, and stretching moves in most songs
18. During my Nia class I should
   ☐ not sweat so that I don’t get thirsty
   ☐ chew gum to keep my mouth moist so that I don’t have to drink any water
   ☐ never drink any water so that I don’t have to go to the rest room during class
   ☐ regularly sip some water to keep hydrated

19. In order to get or maintain a healthy and fit body I need to
   ☐ do more aerobic exercise, eat more and sleep less
   ☐ balance food intake and rest with fitness activities that include cardio, strengthening and stretching movement forms
   ☐ go on a diet, cut carbs, eat only fruit and vegetables, and exercise until I’m exhausted
   ☐ regularly sip some water to keep hydrated

20. As my favourite routine to dance to during our Final I choose _________________ for the following reason: