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STUDENT ID# _____

TEST BOOKLET# _____

April 23, 1997, MS-I Final Written Exam - Version 2
Spring Semester 1996/97

SECTION I: Each of the following questions has only one best answer. Mark the best selection on your Scantron Sheet.

1. The following describes the treatment position for which strain counterstrain tender point?

Stand behind your seated patient with arms dropped back. Place your forearms under the patient's axilla and grasp the medial side of the patient's forearms to add internal rotation. Pull backward on the patient's arms, creating a fulcrum at the desired level.

- a. A2T
b. A4T
c. A6T
d. P2T
e. P9T

A 3/4 T

2. To treat the lesion C3 FSRRR with cervical muscle energy, the physician positions the patient in (1) and has the patient perform isometric contractions to attempt positioning her head in (2) against the physician's unyielding force.

- a. (1) C3 ESLRL (2) C3 FSRRR
b. (1) C3 FSRRR (2) C3 ESLRL
c. (1) C3 ESLRL (2) C3 ESRRL
d. (1) C3 ESRRL (2) C3 ESLRL
e. (1) C₃ FSLRL (2) C3 FSRRR

DR TX C3 ESLRL
PT TX C3 FSRRR

3. Using the Thomas Test, iliopsoas tightness is indicated by:

- a. difficulty in flexing the knees to the chest N
b. one leg longer than the other leg
c. a space between the popliteal fossa and the table
d. pain when performing the straight leg raise N
e. external rotation of the lower extremities N

4. The standing flexion test is specifically for: *iliosacral*
- thoracic dysfunction
 - sacroiliac dysfunction
 - achilles tendon dysfunction
 - iliosacral dysfunction
 - lumbar dysfunction
5. With a lesion of C5 ESR_{RR}, what is the position of treatment using cervical HVLA with a rotational focus?
- C5 FSR_{RL}*
- C5 FSR_{RR}
 - C5 FSR_{RL}
 - C5 FSL_{RR}
 - C5 FSL_{RL}
 - C5 ESL_{RL}
6. A painter, jumping off a ladder and landing flat on one foot, would most likely create which of the following iliosacral lesions on that side?
- inferior subluxation of the innominate
 - sacral torsion
 - lumbosacral compression
 - superior subluxation of the innominate
 - sacral flexion
7. When performing active motion testing of the OA joint, you observe during chin flexion that the chin deviates to the right. The lesion diagnosis would be:
- L R_{PSI}*
- FSL_{RR}
 - FSR_{RL}
 - NSR_{RL}
 - ESL_{RR}
 - ESR_{RL}
8. Which of the following is CORRECT in diagnosing a rib lesion? *IB ET*
- An inhalation group lesion is held up by the most caudad rib in the group. *Y*
 - In an exhalation lesion, the rib will not move down when the patient exhales. *N*
 - In an exhalation group lesion, the most caudad rib in the group should be treated first. *N*
 - An inhalation lesion is the same as an inhalation restriction. *N*
 - An inhalation group lesion is held down by the most cephalad rib in the group. *N*

9. The key to gapping the head of the first rib from the vertebral body of T1 during the seated treatment for a superior subluxation is:
- allow the arm on the opposite side to hang to the floor *N*
 - make sure your wrist is in flexion before applying a thrust *N*
 - make sure your thrust is at a 45° angle towards the same side costal margin *N*
 - have the patient sidebend towards the side of the restriction *Y*
 - rotate the head away from the restriction to engage the restriction barrier *tightens excess*
10. The tender points for anterior cervicals 2 through 6 are all treated by:
- sidebending toward (ST)
 - rotation away (RA)
 - marked flexion (F)
 - flexion with sidebending toward, rotation away (FSTRA)
 - flexion with sidebending away, rotation away (FSARA) *FSARA*
11. A strain counterstrain tender point should be reduced in pain/tenderness by how much in order to be considered a sufficient treatment?
- one-third
 - one-half
 - two-thirds
 - three quarters
 - 100%
12. Sacroiliac motion dysfunction is tested by the:
- gait
 - standing flexion test
 - straight leg raise
 - hip flop
 - seated flexion test *seated FT*
13. Concerning AA diagnosis and muscle energy, which statement is correct?
- The head and neck are brought into full flexion to lock out OA motion before testing AA motion. *N no c3-c7*
 - When testing the AA in the fully flexed position, the patient will first move through AROM (active range of motion) before PROM (passive range of motion) is assessed by the physician. *N*
 - With a diagnosis of RR, the physician will rotate the head as far to the right as possible before having the patient perform muscle contractions. *barrier N*
 - The amount of force used with AA muscle energy is generally much greater compared to other segments of the cervical spine. *N*
 - The AA is almost a pure rotational restriction, so no sidebending, flexion or extension is used during treatment. *N*

14. In treating a counterstrain posterior thoracic tender point, the most important and consistent component of treatment positioning is:

- a. extension
- b. flexion
- c. rotation
- d. sidebending
- e. traction

15. The difference in treating an inhalation vs. exhalation lesion using the "Kirkville Crunch" for the ribs is:

- a. which side of the patient you stand on N
- b. whether hand placement is superior or inferior to the rib Y
- c. which vector you use as you apply your thrust
- d. how far past midline you roll the patient N
- e. whether you place the patient prone or supine N

16. Using cervical muscle energy, how would you treat the lesion C7 FSLRL:

- a. indirect, C7 FSLRL
- b. direct, C7 ESRRR
- c. indirect, C7 FSRRR
- d. direct, C7 FSLRL
- e. direct, C7 FSLRR

C7 ESRRR
direct

17. If C4 has restricted left sidebending and rotation while in flexion, what is the correct positional diagnosis in lesion format?

- a. C4 ESRRR
- b. CR FSRRR
- c. C4 ESLRL
- d. C5 ESRRR
- e. C5 FSLRL

~~C4 ESLRL~~
C4 ESRRR

18. Diagnostic criteria for a left unilateral sacral flexion lesion includes:

- a. left positive seated flexion test with a deep left sacral sulcus & L post ILA
- b. deep right sacral sulcus and left posterior ILA N torsion
- c. left positive seated flexion test and right posterior and inferior ILA N
- d. deep left sacral sulcus with right posterior and inferior ILA N torsion
- e. right positive seated flexion test with a deep left sacral sulcus N



19.

What primary muscle group(s) would be used in muscle energy treatment of posterior innominate rotation?

- a. gluteus maximus m
- b. iliopsoas m
- c. hamstring m
- d. quadratus lumborum
- e. popliteus m

20. The strain/counterstrain tender point, posterior C3, is treated in which of the following positions?

- a. extension to C3, sidebending and rotation away
- b. flexion to 45°, sidebending and rotation toward
- c. flexion to 45°, sidebending toward and rotation away
- d. flexion to 45°, sidebending and rotation away
- e. extension to C3, sidebending and rotation toward

FSARA

21. With the findings: positive left seated flexion test
sacral sulcus deeper on the right
ILA posterior/inferior on the left
the correct diagnosis would be:

- a. left on right sacral torsion
- b. left on left sacral torsion
- c. right on right sacral torsion
- d. right unilateral flexion
- e. left unilateral extension



L/R

22. The common compensatory pattern focuses on:

- a. changes induced by right-handedness
- b. range of motion along the spine
- c. isolated lesions
- d. soft tissue changes
- e. the spinal transitional zones

23. On examination, you found:
positive RIGHT seated flexion test
deep RIGHT sacral sulcus
LEFT posterior-inferior ILA
L5 was rotated RIGHT



Treatment of this patient with muscle energy technique would include which of the following?

- a. rotating the trunk to the right ^N
- b. rotating the trunk to the left ^Y
- c. rotating the sacrum to the left ^N
- d. contracting the right iliopsoas muscle ^N
- e. contracting the left iliopsoas muscle ^N

24. The MPSI tender point is located near the belly of which muscle?

- a. piriformis muscle PIR
- b. gemelli muscle GEM
- c. gluteus maximus muscle
- d. adductor muscle
- e. tensor fascia lata muscle

25. The recommended treatment time, according to Dr. Lawrence Jones, for SCS rib tender points is:

- a. 30 seconds
- b. 60 seconds
- c. 90 seconds
- d. 120 seconds
- e. 150 seconds

2 min

26. The force vector for a sidebending focus HVLA thrust of OA ~~SRRL~~ is toward the:

ESRLB

- a. right nipple
- b. left clavicle
- c. right eye
- d. right C1 transverse process
- e. left C1 transverse process (rotational)

S_LR_o

27. What is the clinical diagnosis of a patient with the following findings?

positive right standing flexion test
right ASIS inferior, right PSIS superior
right pubic tubercle inferior, right leg longer

- a. left superior innominate shear
- b. right anterior innominate rotation
- c. right inferior innominate shear
- d. left superior pubic subluxation
- e. right inferior pubic subluxation

+R
R ant rot.

28. Please choose the correctly-matched tender point and treatment position:

- a. HISI - thigh extension, external rotation and abduction
- b. PIR - thigh flexed, abduction, external rotation N^x
- c. PLT - prone with mild thigh adduction N^y
- d. HFO-SI - prone abduction
- e. GEM - thigh extension, add/abd tuning

29. Which muscle receptor functions as a tension monitoring receptor?
- golgi tendon organ
 - muscle spindle
 - pacinian corpuscles
 - (Type IV) free nerve endings
 - (Type III) mechanoreceptors
30. Somatic dysfunction is best indicated by:
- neuroimmunologic alterations
 - lack of tissue changes
 - tenderness over osseous structures alone
 - congenital deformities which are asymptomatic
 - reduced range of motion
31. While gapping the costovertebral articulation in using the Sutherland rib release, where is a fulcrum created in ribs 1-10?
- body of the vertebra
 - costotransverse articulation
 - spinous process of the vertebrae
 - rib angle
 - sternocostal articulation
32. Indications to treat T1-T4 with strain counterstrain are all of the following EXCEPT:
- steady shoulder pain
 - ulcer
 - upper respiratory infection
 - sinusitis
 - asthma
33. Portions of the pubic lateral ramus serve as landmarks for several tender points. Please choose the correct listing:
- | | | | |
|-------------------------------------|---|--------------------------|--|
| <input checked="" type="radio"/> a. | lateral: InL
superior: LISI
anterior: A5L | <input type="radio"/> d. | lateral: ADD
superior: LISI
anterior: LISIFO |
| <input type="radio"/> b. | lateral: InL
superior: LISI
anterior: ADD | <input type="radio"/> e. | lateral: InL
superior: LISI
anterior: LISIFO |
| <input type="radio"/> c. | lateral: InL
superior: ADD
anterior: LISIFO | | |

34. When a patient has a "backache" secondary to kidney disease, this is known as:

viscero-

- a. somatosomatic reflex
- b. somatovisceral reflex
- c. viscerovisceral reflex
- d. viscerosomatic reflex
- e. somatochondriac reflex

35. The anterior fifth lumbar tender points (A5L) are located on the:

- a. lateral side of the ASIS *N*
- b. iliac crest *N*
- c. anterior pubic bone
- d. AIIS *N*
- e. attachment of the inguinal ligament to the pubic bone *N*

36. The aorta, thoracic duct and azygos vein pass through the aortic opening of the diaphragm at the level of:

- a. T8
- b. T9
- c. T10
- d. T11
- e. T12

T EA
8 10 12

37. To treat anterior rib 1 tender point:

FSTRT

- a. focus on extension, sidebending away, rotation away *N*
- b. use head and neck for treatment position *N*
- c. patient leans heavily into operator's thigh *N*
- d. use marked sidebending toward with rotation away *N*
- e. bring patient's arm across chest to create rotation away *N*

38. A lumbar scoliotic curve is named by the side of:

- a. muscular hypertonicity
- b. flexion
- c. convexity
- d. concavity
- e. extension

39. "Electrical charges produced in structures with changing lines of stress" describes which of the following?

- a. mechanical forces
- b. piezoelectric forces
- c. binding forces
- d. Boyles Law
- e. Wolfe's Law

40. The difference between tender point locations for ADD and LISIFO is that:
- ~~a.~~ ADD is located along the inferomedial pubic ramus surface and LISIFO in the proximal adductor muscle *N*
 - ~~b.~~ ADD is located at the adductor muscle origin, whereas LISIFO is on the pubic ramus nearby
 - c. ADD is located at the adductor muscle origin, and LISIFO at the medial ischial tuberosity
 - ~~d.~~ ADD is located in the adductor muscle belly, while LISIFO is along the upper medial pubic ramus surface *N*
 - ~~e.~~ ADD is located in the proximal adductor muscle, and LISIFO along the inferomedial pubic ramus surface. *N*
41. During inhalation, the sacral base moves:
- a. posterosuperiorly
 - b. anteroinferiorly
 - c. posteroinferiorly
 - d. anterosuperiorly
 - e. posteriorly
- Post
Inf*
42. When your patient reaches the limit of voluntary motion at an articulation, (s)he has reached the:
- a. anatomical barrier
 - b. physiologic barrier
 - c. restrictive (pathologic) barrier
 - d. speed of sound barrier
 - e. dysfunctional barrier
43. A young man complains of generalized abdominal pain and a tender area located at the tip of his right 12th rib. Based on Chapman's points, he may have:
- a. a stomach ulcer
 - b. a bowel obstruction
 - c. appendicitis
 - d. constipation
 - e. pancreatitis
44. The term "unwind" means:
- a. alteration of bony lesions
 - b. stimulation of flaccid or hypotonic structures
 - c. inhibition of neural strain patterns
 - d. release of hypertonic fascia and muscle
 - e. passive articular engagement of abnormal physiologic barriers

45. Treatment position for LP5L (counterstrain) is:
- hip extension until tenderness is reduced by approximately 2/3 N
 - hip flexion, knee flexion, hip adduction and internal rotation Y
 - hip flexion, knee flexion, hip abduction and external rotation
 - hip abduction, mild internal rotation N
 - hip extension and some mild adduction N
46. In describing a somatic dysfunction or osteopathic lesion, it is named:
- by the position of the inferior vertebra in relation to the superior one and describes the ease of motion
 - by the position of the superior vertebra in relation to the inferior one and describes the restriction of motion N
 - by the position of the superior vertebra in relation to the inferior one and describes the ease of motion
 - by the position of the inferior vertebra in relation to the superior one and describes the restriction of motion N
 - by the position of the superior vertebra in relation to the inferior one and describes a plane of motion restriction N
47. Poor amplitude during palpation of the sacrum is indication of:
- exhalation
 - inhalation
 - guarding
 - pulling away from sacrum
 - compression
48. Zink's Common Compensatory Pattern (CCP) interprets the body using which of the following models?
- somatic/neuronal
 - respiratory/circulatory
 - lymphatic/respiratory
 - circulatory/neuronal
 - visceral/somatic
49. In evaluating a patient's pelvic diaphragm, you note it does not descend completely. What is your diagnosis and how could you treat it?
- ~~a~~ exhalation lesion; treat directly in full exhalation
 - b inhalation lesion; treat indirectly in full inhalation
 - ~~c~~ exhalation lesion; treat indirectly in full inhalation
 - ~~d~~ inhalation lesion; treat directly in full exhalation
 - ~~e~~ exhalation lesion; treat indirectly in full exhalation
- inhalation lesion indirect*

50. The thoracolumbar direct MFR techniques use the crossed hand position to:

- a. gently stretch the tissues between the hands
- b. reduce the amount of time spent in treating the patient N
- c. cause approximation of the tissues between the hands N
- d. facilitate switching from MFR to HVLA N
- e. create sidebending in the dysfunctional segments N

#24
#40

thrown out

#13 also thrown out

1	B	C	A	B	A
2	A	E	E	B	B
3	C	E	B	A	C
4	D	A	E	D	D
5	B	B	D	C	B
6	D	B	C	E	C
7	D	A	B	E	C
8	A	A	B	C	B
9	D	B	A	B	E
10	E	D	E	E	A

6 out of 18
 $\frac{12}{18} = \frac{2}{3}$