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STUDENT ID# _____

TEST BOOKLET# _____

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QUESTIONS TO EXAMINATIONS: OPMSII/98/EK

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There are 50 questions on this exam.

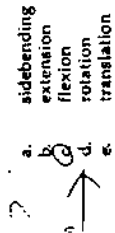
QUESTION/ANSWER

- 1/D, 2/D, 3/D, 4/E, 5/C, 6/C, 7/B, 8/B, 9/A, 10/A
- 11/A, 12/A, 13/A, 14/B, 15/D, 16/E, 17/C, 18/B, 19/C, 20/D
- 21/B, 22/E, 23/B, 24/D, 25/C, 26/B, 27/B, 28/C, 29/A, 30/B
- 31/D, 32/B, 33/C, 34/C, 35/C, 36/A, 37/B, 38/B, 39/D, 40/D
- 41/B, 42/E, 43/B, 44/D, 45/D, 46/C, 47/E, 48/A, 49/D, 50/D

4/10 WAVE

SECTION 1: Each of the following questions has only one best answer. Mark the best selection on your Scantron Sheet.

1. With a segmental diagnosis of L4 FRLSL, which one of the following statements is correct?
 - a. the restriction was evident in flexion
 - b. this lesion exhibits Type I mechanics
 - c. the spinous process of L4 will be closer to the spinous process of L5 because of the lesioned position
 - d. the left transverse process of L4 will be more posterior (superficial) in extension than in flexion
 - e. rotation and sidebending are usually in the same direction in Type I mechanics
2. In performing the suboccipital (OA) release, the physician's fingers are positioned:
 - a. extended firmly, but gently, against the lateral margin of the transverse process
 - b. firmly with gradually deepening pressure against the superior nuchal line
 - c. flexed and in contact with C2 and C3 for greatest distractive pressure advantage from the occiput
 - d. flexed and in contact with the suboccipital soft tissues between the occiput and spinous process of C2
 - e. may position in manner of either b or d
3. When the neck is in flexion, the primary motion of the typical cervical vertebrae is:
 - a. sidebending
 - b. extension
 - c. flexion
 - d. rotation
 - e. translation



9. The lumbar segmental exam can be performed in either the seated or prone position. One advantage of the prone testing position is:
- a. greater muscle relaxation; therefore, greater palpatory access to the lumbar spine, especially the transverse processes
 - b. there is no advantage to this testing position
 - c. the patient can more easily move into either flexion or extension
 - d. there is no need to have the patient extend the lumbar spine. Testing in neutral and flexion is sufficient for diagnostic purposes in all cases.
 - e. less time is needed to diagnose dysfunction

10. What common compensatory patterns (CCT) are associated with the T12 vertebral level?
- a. SLRL
 - b. SRRR
 - c. SRRL
 - d. SLRR
 - e. P-SRRR
- T12 L L

11. How would you position a patient with L3 ERGR for treatment of the sidebending component in lateral recumbent muscle energy?
- a. patient on the right side, with ankles elevated; patient presses ankle down against resistance
 - b. patient on the left side, with ankles elevated; patient presses ankles down against resistance
 - c. patient on the right side with ankles dropped off the front of the table; patient raises ankles up against resistance
 - d. patient on the left side with ankles elevated; patient presses ankles down against resistance
 - e. patient supine with ankles crossed; patient presses knees anterior against resistance

12. When performing a physical assessment using Chapman's reflexes, where do you normally start?
- a. patient's left side, starting approximately one inch above the knee and moving cephalad
 - b. patient's right side, starting approximately one inch above the knee and moving cephalad
 - c. on either side of the patient, starting with the first rib and moving distally
 - d. posterior points are assessed first, distal to proximal
 - e. anterior points, starting with the first rib and moving distally

4. The mnemonic given in class describing the typical pattern for the chronological development of post-op fever is as follows:

- a. water, wound, walking, wonder drugs and wind
- b. wound, walking, wonder drugs, wind and water
- c. walking, wonder drugs, wind, water and wound
- d. wonder drugs, wind, water, wound and walking
- e. wind, water, wound, walking and wonder drugs

5. Using muscle energy techniques, which muscle would the patient contract in order to correct a left posterior innominate rotation?

- a. piriformis
- b. gluteus maximus
- c. rectus femoris
- d. biceps femoris
- e. vastus medialis

6. Chapman's Reflexes: give the diagnostic and treatment location for the anterior sinus point.

- a. upper edge of the clavicle, just distal to where it crosses the first rib
- b. 3rd interspace near the sternum
- c. upper edge of the 2nd rib and 1st intercostal space, 3.5 inches from the sternum
- d. 4th interspace, close to the sternum
- e. 2nd interspace, close to the sternum

7. If symptoms of carpal tunnel syndrome persist despite aggressive OMT, possible treatments shown to improve symptoms include all of the following EXCEPT:

- a. surgery
- b. NSAIDs
- c. wrist splint
- d. oral prednisone
- e. steroid injection

8. The average time to resolution of a post-operative adynamic ileus after OMT is:

- a. 1 hour
- b. 8 hours
- c. 2 days
- d. 3 days
- e. 6 days

17. Concerning myelination of the fetus/newborn, all of the following are true EXCEPT:

- a. it has begun by the fourth month
- b. it begins in the cervical region, radiating upwards into the brain stem and inferior to the sacrum
- c. in the newborn, CN I-XII are completely myelinated
- d. myelination of sensory pathways is dependent on the presence of adequate stimuli
- e. in the newborn, the cortex white matter is not yet myelinated except for a small number of fibers in the primary afferent system

18. In women, the incidence of cystitis more than doubles after which of the following?

- a. menarche
- b. becoming sexually active
- c. pregnancy
- d. menopause
- e. HRT (hormone replacement therapy)

19. During a routine osteopathic structural exam, it was found that the patient had a positive right standing flexion test, and his left ASIS was closer to his umbilicus than the right ASIS; therefore, this patient's iliosacral diagnosis is:

- a. left inflare
- b. right inflare
- c. right outflare
- d. left posterior rotation
- e. right anterior rotation

20. A 45 year old male presented to your clinic with a complaint of right low back and buttock pain. Noted on exam was a positive standing and seated flexion test on the right. The right inferior lateral angle (ILA) was posterior and inferior, and the right sacral sulcus was noted to be deep. The lumbosacral spring test was negative. The findings are most consistent with what type of somatic dysfunction?

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

13. In Dr. Dick's neurological model of pain management, what structure has the greatest effect on the spinal cord?

- a. blood vessels
- b. lymph vessels
- c. muscle attachments
- d. peyer's patches
- e. vertebral bodies

14. In what ways does the set-up to treat a neutral lesion (L4 NRRSL) differ from the set-up to treat an extension lesion (L4 ERRSR) which using lumbar HVLA?

- a. the positioning of the legs
- b. the direction of rotation
- c. the amplitude of the thrust
- d. the side the patient lies on
- e. the direction of set-up is established by the positioning of the upper extremity

15. During a static visual inspection of the cervical spine, you notice the patient's head is slightly flexed, the chin slightly rotated to the right and the head slightly sidebent to the left. You would suspect what OA diagnosis?

- a. E SLRR
- b. E SRRL
- c. E SLRL
- d. F SLRR
- e. F SRRL

16. Which of the following is TRUE concerning the anterior 5th lumbar (ASL) tender point?

- a. its location is inferior to anterior inferior iliac spine with pressure superiorly
- b. its location is on the lateral pubic bone, slightly inferior to the inguinal ligament attachment
- c. the patient is treated in the supine position with hips flexed and marked external rotation of the thighs
- d. the patient is treated in the supine position with adduction of ipsilateral side lower extremity
- e. it is located on the front of the pubic bone, 1 cm lateral to the pubic symphysis

21. Applying a progressively stronger, painful pressure on a trigger point for the purpose of eliminating the point's tenderness, which may result in a reflexive hyperemia, is an example of:

- a. myofascial release
- b. ischemic compression
- c. strain/counterstrain
- d. positional release
- e. Chapman's Reflex treatment

22. In the treatment of upper respiratory infections, sacral restrictions (lumbosacral compression and sacroiliac restrictions) may need to be treated because:

- a. you have to treat all restrictions in function
- b. it allows free motion of the cranial mechanism
- c. it helps balance parasymphathetics with sympathetics - T1-L2
- d. pelvic gait disturbances cause upper respiratory infections
- e. b and c only are true

23. How long should a direct, steadily increasing pressure be applied when utilizing ischemic compression?

- a. 5-10 seconds
- b. 30-60 seconds
- c. 2 minutes
- d. 5 minutes
- e. 1-2 seconds

24. While testing cervical motion of C3 in neutral, you find that the segment is restricted in rotation and sidebending to the right. As you bring the neck into a semiflexed position, the restriction at C3 worsens. How will you treat the C3 segment using muscle energy - direct

- a. neck in semiflexed position with sidebending and rotation of C3 to the left
- b. neck in neutral position with sidebending and rotation of C3 to the right
- c. neck fully flexed past C3 with sidebending and rotation to the left
- d. neck in semiflexed position with sidebending and rotation of C3 to the right
- e. neck in semiflexed position with sidebending and rotation of C3 to the right

25. Viscerosomatic reflexions of disease in the kidneys, ureters and bladder are appreciated at which spinal levels primarily?

- a. T6-8
- b. T8-10
- c. T10-L2
- d. L2-5
- e. L5-S4

26. Findings during cervical examination of C4-5 were as follows: lateral translation to the left (right sidebending) was restricted compared to translation to the right (left sidebending); anterior pressure on the left posterior articular pillar was more restricted compared to the right. Restrictions were most noticeable while in the flexed position. The diagnosis is:

- a. E S R R L
- b. E S L R L
- c. E S L R R
- d. F S R R R
- e. F S L R R

27. Which of the following statements about Chapman's Reflexes is correct?

- a. Posterior points are used for diagnosis only.
- b. Anterior points are used for both diagnosis and treatment.
- c. Treat posterior reflexes first, then anterior reflexes if needed.
- d. It is recommended that when treating with Chapman's reflexes, other techniques be used during the same session.
- e. The physician should use his knuckle with direct static pressure applied to point from 4 to 30 seconds

28. Diagnose the sacral dysfunction according to the following findings:

- a. seated flexion test: (+) right
- b. deep sacral sulcus: left
- c. prominent ILA: right
- d. spring test: (+)
- e. R/R forward torsion
- f. right unilateral flexion of sacrum
- g. R/L backward torsion
- h. L/L forward torsion
- i. right unilateral extension of sacrum

T10-L2

ESLRL

deep seated flexion test (+) right

R/L

IX

34. Concerning the piriformis (PIR) tender point, which of the following is TRUE?

- a. it is commonly associated with the symptom of dysmenorrhea
- b. the patient is treated in the supine position with adduction and external rotation of the ipsilateral lower extremity
- c. it is commonly associated with the symptoms of sciatica and low back pain
- d. it is located on the superior medial surface of the posterior superior ilial spine (PSIS)
- e. it is located on the inferior surface of the PSIS at the central promontory of the sacrum

35. Of the following, which substance has been shown in studies to improve carpal tunnel syndrome?

- a. vitamin B12
- b. vitamin C
- c. vitamin B6
- d. vitamin D
- e. vitamin E

36. Fill in the blanks. The average range of motion for cervical sidebending is 45 for cervical flexion and extension is 90 and for cervical rotation is 90.

- a. 45, 60 and 90
- b. 60, 45 and 90
- c. 45, 45 and 60
- d. 60, 60 and 90
- e. 60, 90 and 90

37. During a whiplash injury, hyperextension causes a(n) _____ translation of one vertebra on the one below it.

- a. anterior
- b. posterior
- c. superior
- d. inferior
- e. oblique

38. To treat a patient with the lesion L2 ERRSR using HVLA:

- a. flex the patient's hips and knees until you feel motion in L2
- b. pull the patient's right arm in a cephalad direction to induce sidebending
- c. rotate the patient's upper body until you feel motion between L1 and L2
- d. pull the patient's right arm laterally to induce rotation to the right
- e. instruct the patient to lie on his left side facing you

29. The key to diaphragmatic breathing is:

- a. abdominal musculature relaxation and full diaphragmatic descent with inspiration
- b. counting slowly to 6 on the inhalation and to 8 on the exhalation
- c. proper posture
- d. intercostal muscle contractions
- e. one hand on the abdomen and the other hand on the upper chest

30. Where is the Chapman's point for the appendix located?

- a. over the right ASIS
- b. tip of the right 12th rib
- c. tip of the right 11th rib
- d. tip of the left 12th rib
- e. tip of the left 11th rib

31. What is (are) the most common sacral torsion?

- a. R/R forward torsion
- b. L/R backward torsion
- c. R/L backward torsion
- d. L/L forward torsion
- e. L/L and R/R forward torsions are equally common

32. What does knowledge of the common compensatory pattern (CCP) allow the physician to do?

- a. focus on the individuality of each patient
- b. focus on spinal transitional zones
- c. focus on treating all patients in the same manner
- d. focus on treating the patient as a set of parts
- e. focus on treatment as a neurologic/connective tissue model

33. After manipulation, Dr. Dick recommends which dietary components for better patient recovery?

- a. lots of water and fruits
- b. grains with sugars
- c. heavy carbohydrates without sugars
- d. water only for 48 hours
- e. vitamins and supplements only for 24 hours

43. Spinal cord neurons that have both somatic and visceral receptive fields are referred to as:

- a. mechanoreceptive-type neurons
- b. wide dynamic range neurons
- c. nociceptive-specific neurons *J. J. J.*
- d. alpha-motoneurons
- e. gamma-motoneurons

44. Which of the following statements concerning the cervical disc is correct?

- a. The blood supply to the discs are generally present throughout life.
- b. The 1st cervical disc is located between C1 and C2.
- c. The primary purpose of the disc is to restrict movement.
- d. The discs do not reach the lateral margins of the vertebral bodies because of the uncinate processes of C3-C7.
- e. The nucleus pulposus is mostly collagen and so contains little water or proteoglycan.

45. Which of the following holds true for both Type I and Type II lesions when positioning a patient for seated treatment of a lumbar lesion with muscle energy?

- a. always sidebend the patient toward the physician
- b. always flex the patient to the joint space below the lesioned segment
- c. always place your axilla over the patient's shoulder closest to you
- d. always rotate the patient toward the physician
- e. always extend the patient to the joint space below the lesioned segment

46. Definition of EASY stretch includes:

- a. gentle bowing of tight muscles
- b. quick easy stretch, then quick hard stretch
- c. gentle stretch with mild tension, holding for 10 to 30 seconds
- d. full body relaxation before any stretching begins
- e. diaphragmatic breathing while stretching

47. The inferior/cervical ganglion sends branches to the heart and lies at what anatomical landmark?

- a. at the level of the transverse process of C6
- b. at the level of the atlantoaxial joint
- c. along the abdominal aorta
- d. along the spinous processes of T1-T6
- e. at the superior border of the first rib, anterior to C7

39. When diagnosing T1 by way of the first rib during the supine hospital screening examination:

- a. press posteriorly on each anterior 1st rib surface to determine the sidebending component at T1
- b. press posteriorly on both anterior 1st rib surfaces to determine flexion at T1
- c. use head and neck as a lever to determine rotation at T2
- d. press posteriorly on each anterior 1st rib surface to determine rotation of T1
- e. press anteriorly on rib 1 to determine flexion of T2

40. When doing segments indirect MFR in the lumbar region, you:

- a. take the paravertebral muscles in the position of ease, and hold until the tissues return to their normal length
- b. position the vertebra until there is a 2/3 improvement in mobility and hold that position for 90 seconds
- c. flatten the lumbar curve, position the vertebra in the direction of ease, add torsion with the legs, and hold for 3 seconds
- d. take the vertebra into the position of ease, fine tune the positions as the tissues release and change
- e. use the tripod hold on adjacent vertebrae and alternately use compression and traction until the vertebra has full range of motion

41. For the OMT application to sinusitis, which of the following techniques were recommended?

- a. stimulation of infraorbital and supraorbital notches
- b. frontonasal suture V-spread
- c. frontal lift
- d. a and c only
- e. all are correct

42. Which of the following techniques would most likely NOT be effective in eliminating a tender point?

- a. ischemic compression
- b. spray technique
- c. injection
- d. myotherapy
- e. isolytic exercises

48. According to Robert Gillette's article, "A Practical Approach to the Patient with Back Pain," with patients who have back pain and fail to improve within two weeks after initial evaluation and intervention, the next course of action should be:

- a. to review the patient history and repeat a careful physical exam
- b. to refer the patient for immediate surgical consultation
- c. intrathecal administration of chymopapain
- d. continued regimen of strict bed rest, and liberal use of muscle relaxants

49. Factors that contribute to fetal/newborn hypoxia secondary to plagiocephaly include all of the following EXCEPT:

- a. long, short, or false labors
- b. forceps delivery
- c. Cesarean delivery
- d. multiparity
- e. umbilical cord around the neck

50. A 28-year old male presented to your clinic with a chronic complaint of back pain, without radiation of symptom to either lower extremity. On your exam noted was evidence of somatic dysfunction as denoted by boggy and paraspinal soft tissue stiffness.

Additionally, there was noted a palpable "step off" (anterior displacement) of the L4 vertebra with respect to the L5 vertebra that became worse with backward bending of the lumbar spine. What is the best answer that could describe this constellation of findings?

- a. spondylolysis
- b. stenosis
- c. spondylolysis
- d. spondylolysis
- e. spina bifida