**IQRA NATIONAL UNIVERSITY**

**DEPARTMENT OF ALLIED HEALTH SCIENCES**

**Final-Term Examination (Spring-20) (DPT 6TH)**

**Course Title: Manual Therapy Instructor: Ms. Maria Feroze**

**Time: 11 hours Max Marks: 50**

**Note:**

* **Attempt all questions from this section, all questions carry equal marks.**

**MULTIPLE CHOICE QUESTIONS (MCQs)**

1. If someone physically moves or stretches a part of your body, such as your leg, this is called \_\_\_\_\_\_\_\_
2. PROM
3. AROM
4. AAROM
5. Full ROM
6. All these are goals of passive ROM exercises except:
7. Enhance synovial movement along joints
8. Assist circulation
9. Maintain mechanical elasticity of muscles
10. Increase pain
11. Active ROM exercises prevent thrombus formation. Which of the event/s lead to thrombus formation?
12. Conversion of fibrinogen to insoluble strands of fibrin
13. Initial generation of activated Factor X
14. Amplification of Factor X generation
15. Both B and C
16. All of the above
17. Active ROM exercises are indicated in all of the following except:
18. Muscle weakness
19. Brisk walking
20. Cycling
21. Immobilized segment
22. Both C and D
23. Irfan came to your physiotherapy clinic after being injured in a car accident. O/E, he flexes his right shoulder up to 90 degrees after which he feels pain. You help him in flexing the shoulder above 90 degrees. This type of movement is called \_\_\_\_\_\_\_
24. Passive movement
25. Active movement
26. Active assisted movement
27. Functional movement
28. A patient comes to your clinic with limitation of movement at the shoulder. You find out that he cannot pick anything from above the shelf so you give ROM exercises as a treatment for his limitation. In this case you are working on patient’s \_\_\_\_\_\_\_\_
29. PROM
30. AROM
31. Full ROM
32. Functional ROM
33. 36 years old Saif comes to your clinic with a complaint of pain in his right hip. He tells you that he had a fall 2 days back. He flexes his right hip to 60 degrees after which he feels pain. You plan to give him passive ROM exercises. The most appropriate technique to start PROM exercises is to:
34. Perform the movements with 5 to 10 reps on right hip
35. Perform the movements with 5 to 10 reps on left hip
36. Perform the movements with 10 to 20 reps on right hip
37. Perform the movements with 10 to 20 reps on left hip
38. When arising from a chair, the direction of motion is:
39. Hip extension, knee extension and ankle plantar flexion
40. Hip extension, knee extension and ankle dorsiflexion
41. Hip flexion, knee extension and ankle plantar flexion
42. Hip flexion, knee extension and ankle dorsiflexion
43. To test the muscle strength of posterior fibres of Gluteus Medius, resist hip abduction with
44. Hip extension
45. Hip external rotation
46. Hip internal rotation
47. Both A and B
48. Number of intervertebral disks in the vertebral column are:
49. 26
50. 20
51. 23
52. 28
53. Primary curves in the vertebral column have:
54. Anterior convexity
55. Posterior convexity
56. Posterior concavity
57. None of the above
58. Lumbar lordosis develops as the child:
59. Starts to lie prone
60. Starts to sit
61. Starts to walk
62. All of the above
63. To minimize the musculoskeletal pain and promote healing, protection of the part affected by the inflammatory process is necessary during the \_\_\_\_\_\_\_
64. First 12 to 24 hours only
65. First 24 to 48 hours only
66. Any time after 3 days
67. Protection is of no value in musculoskeletal pain
68. A 25 years old female presented with limited right elbow movement. Therapist applied a sudden forceful thrust beyond the patient control. This technique is known as:
69. Mobilization technique
70. PROM
71. Manipulation
72. AROM
73. 38 years old lady with frozen shoulder is treated at a clinic. Therapist applies a posterior glide and simultaneously the patient actively performs physiological movement of her shoulder. This technique is known as:
74. Mobilization technique
75. Manipulation
76. AROM
77. Mobilization With Movement (MWM)
78. You are objectively assessing a 34 years old computer operator for his lumbar spine. While performing active trunk bending, patient was unable to perform full ROM due to pain but there was no pain after extending the trunk. What does it mean regarding the symptoms of patient?
79. Symptoms are severe
80. Symptoms are irritable
81. Symptoms are not severe
82. Symptoms are non-irritable
83. The ligament which provides stability to the cervical spine preventing the odontoid process from subluxation is:
84. ALL
85. PLL
86. Transverse ligament
87. Alar ligament
88. Both C and D
89. Hip abduction can be limited by:
90. Gracilis
91. Pectineus
92. Iliotibial band
93. Both A and C
94. For maintaining ROM and preventing contracture formation \_\_\_\_\_\_\_\_ should be used:
95. Passive movements and passive stretching
96. Active movements and active stretching
97. AROM
98. AAROM
99. All of the following are contra indications for manual therapy EXCEPT:
100. Pain that is relieved by rest
101. Cellulitis
102. Hematoma
103. Osteoporosis

### Standard bone movement are all except:

### Anatomical movements

### Uniaxial movements

### Flexion and Extension

### Functional movements

1. Manual Therapy:
   1. Manual therapy uses hands-on techniques to improve ROM in restricted joints. It is also used to stimulate the function of muscles, nerves, joints, and ligaments.
   2. Manual therapy uses physical agents (modalities) to improve ROM in restricted joints. It is also used to stimulate the function of muscles, nerves, joints, and ligaments.
   3. Manual therapy uses hands-on techniques to improve ROM in normal joints. It is also used to stimulate the function of muscles, nerves, joints, and ligaments.
   4. All of the above
2. CPM is used to:
   1. Maintain ROM
   2. Increase ROM
   3. Strengthening upper limb muscles
   4. Strengthening lower limb muscles
3. To passively move the shoulder in external and internal rotation in supine position, the range of shoulder abduction and elbow flexion should be \_\_\_\_\_\_\_\_\_ degrees respectively.
   1. 90 & 90
   2. 90 & 60
   3. 90 & 30
   4. 60 & 60
4. A 59 year old male patient is being evaluated for left shoulder pain.  The patient reports that his shoulder pain is closely associated with activity, including stress at work.  The patient reports that at worst, the pain radiates into his neck, and he feels shortness of breath which subsides with rest.  What would the MOST appropriate intervention be?
   1. Begin passive range of motion exercises within the pain free range of motion
   2. Postpone treatment and refer the patient to his physician for further evaluation
   3. Apply modalities to the shoulder and instruct the patient on activity modification
   4. Begin the patient with rotator cuff exercises within the pain reduced range of motion and instruct patient on activity modification
5. Although both PROM and AROM are contraindicated under any circumstance when motion to a part is disruptive to the healing process during acute or initial phase of rehabilitation while complete immobility leads to adhesion, contracture formation, sluggish circulation, and a prolonged recovery time. So what to be to done when a patient has undergone a surgical repair of a tendon or ligament?
   1. Active range of motion
   2. Passive range of motion
   3. Carefully controlled motion within the limits of pain-free motion
   4. Resisted exercises
6. The full range possible at a particular joint is called range of motion. A patient comes to you with limited shoulder movement. What affects the joint range of motion?
   1. The structure of the joints and the bones’ articulations
   2. The integrity and flexibility of non-contractile tissues like ligaments and capsules that pass over the joints
   3. The flexibility and strength of contractile tissues along with integrity of nervous system
   4. Proper movement is depending upon all the mentioned structure.
7. A patient comes to you with Right hemiplegia. On examination you noted flickering movement of the upper limb muscle. What type of ROM exercise you would likely start with:
   1. Passive Range Of Motion
   2. Active Range of Motion
   3. Active Assisted Range Of Motion
   4. Active Resisted Range Of Motion
8. While performing horizontal abduction and adduction in supine at glenohumeral joint, the patient’s position should be
   1. Shoulder at the edge of the table. The arm is either flexed or abducted 90°
   2. Shoulder at the edge of the table and the arm is in extension position
   3. Shoulder is outside the edge of the table as the scapular stabilization is not necessary. The arm is abducted 900
   4. Shoulder at the edge of table while arm is in 1200 abduction
9. After your therapeutic intervention for 4 weeks you noted some improvement in that the said patient is now able to move forward, hold a glass of water and then trying to bring to his mouth. This type of exercise is called
10. Passive Range Of Motion
11. Active Assisted Range Of Motion
12. Resisted Range Of Motion
13. Active Range of Motion
14. \_\_\_\_\_\_\_\_ is a basic technique used for the examination of movement and for initiating movement into a program of therapeutic intervention.
15. Stretching
16. Manipulation
17. Joint mobilization
18. Range of motion
19. ROM activities are most easily described in terms of joint range and muscle range. Terms such as flexion, extension, abduction, adduction, and rotation are used for:
20. Joint range
21. Muscle range
22. Functional excursion
23. None of the above
24. A 25 years old young cricketer seeks your advice regarding upper limb strengthening exercises. First you want to assess his muscle range. He performs flexion of elbow with supination while simultaneously performing maximum flexion at shoulder. This is \_\_\_\_\_\_\_\_\_\_
25. Maximum shortening of biceps
26. Maximum shortening of triceps
27. Maximum shortening of brachialis
28. Maximus shortening of brachioradialis
29. 40 years old patient is admitted in cardiac ward after bypass surgery. You are asked for therapeutic intervention. What therapeutic intervention will you choose as initial rehabilitation program?
30. AROM of upper and lower limb
31. PROM of upper and lower limb
32. Resisted exercises
33. Both A and B
34. A patient has no symptoms in AROM and with overpressure, the patient’s joint may be:
    1. Unstable
    2. Needs to be tested further
    3. Normal
    4. None of the above
35. In cervical spine, disc herniation occurs mostly at the level of:
    1. C3-C4
    2. C4-C5
    3. C5-C6
    4. C6-C7
36. What movement occurs at the forearm while holding a phone to the ear?
    1. Supination
    2. Pronation
    3. Flexion
    4. Extension
    5. Both A and C
37. A patient comes to you with neck pain; you clinically assess the patient and find mild tightness in neck ROM. Now you want to improve his ROM, you laterally flex/bend and rotate the neck towards the right side along with neck flexion and shoulder depression. Which muscle are you stretching?
38. Levator scapulae of the right side
39. Levator scapulae of the left side
40. Trapezius of the right side
41. Trapezius of the left side
42. Sternocleidomastoid stretch involves:
43. Chin tuck in 🡪 contralateral side flexion 🡪 ipsilateral rotation
44. Chin tuck in 🡪 side flexion towards the opposite side 🡪 rotation towards the testing side
45. Chin tuck out 🡪 side flexion towards the opposite side 🡪rotation towards the testing side
46. Both A and B
47. If a person has restricted ROM in the direction of contralateral side flexion along with neck flexion and shoulder depression, which muscle do you suspect as being tight?
48. Upper trapezius
49. Middle trapezius
50. Lower trapezius
51. Upper trapezius is weak
52. You are assessing a patient in clinic, when the patient lies down supine; you find out that the coracoid process is pulled inferiorly and anteriorly. This might be the contracture of which of the following muscles?
53. Pectoralis Major And Minor
54. Pectoralis Major Clavicular Fibers
55. Pectoralis Major Sternocostal Fibers
56. Pectoralis Minor alone
57. Erector spinae is the major muscle of back (lumbar). This muscle is tight when there is:
58. Increase in lumbar lordosis
59. Decrease in lumbar lordosis
60. Lack of flattening of lumbar lordosis
61. Both A and C
62. Fill accordingly:
63. Ipsilateral rotation= \_\_Anterior\_\_\_\_\_\_\_ fibers of scalenes
64. Neutral rotation= \_\_Middle\_\_\_\_\_\_\_ fibers of scalenes
65. contralateral rotation= \_\_Posterior\_\_\_\_\_\_\_ fibers of scalenes
66. All are the muscles of neck except:
67. Upper Trapezius
68. Scalenes
69. Deep Occipitals
70. Levator Scapulae
71. None of the above.
72. Upper trapezius can be weak. This statement is:
73. True
74. False
75. A patient is doing Straight Leg Raise (SLR) and you notice that he flexes his knee while doing SLR. This is an indication of tightness of which muscle?
76. Hamstring
77. Iliopsoas
78. Rectus Femoris
79. Both A and C
80. Piriformis stretch involves all of the following except:
81. Lateral rotation of hip
82. Adduction of hip
83. Active flexion of hip to 90 degrees
84. All of the above are true
85. Scalene muscle has 3 fibers. This statement is:
86. True
87. False
88. To test the tightness of Tibialis Posterior muscle, the clinician must do the following movements:
89. Dorsiflexion and inversion of foot
90. Plantar flexion and eversion of foot
91. Dorsiflexion and eversion of foot
92. None of the above
93. All of the following are the benefits of CPM except:
    1. Prevents development of adhesions
    2. Prevents the degrading effects of immobilization
    3. Decreases postoperative pain
    4. Provides a quicker return of ROM
    5. None of the above