## UNIVERSITY OF BOLTON SCHOOL OF SPORT AND BIOLOGICAL SCIENCES SPORT REHABILITATION PATHWAY SEMESTER TWO EXAMINATIONS 2018/19 SPINAL ANATOMY, PATHOLOGY, MOBILISATION AND MANIPULATION MODULE NO. SRB5002

Date: Monday 20 May 2019

Time: 10.00 am – 12.00 noon

**INSTRUCTIONS TO CANDIDATES:** 

There are FIVE questions on this paper.

Answer FOUR questions.

Please answer all sections of each question.

All questions carry equal marks

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1. a) Define the term 'Adverse Neurodynamic Tension', and explain the mechanism by which this may lead to peripheral neuropathic pain.

(15 Marks)

b) Describe with reference to the anatomical structures involved the difference between 'Radicular pain' and 'Somatic referred pain'.

(10 Marks)

- 2. With reference to Lee and Vleeming's (1998) Integrated Model of Function discuss the following;
  - a) The functional anatomy of the thoracic spine.

(18 marks)

b) Give an example of how a dysfunction could lead to injury in the thoracic spine

(7 marks)

- 3. With reference to Geoffrey Maitland's approach to the spine, describe in detail;
  - a) The Subjective and Objective Assessment.

(18 Marks)

b) The indications for the use of different mobilisation techniques and grades of mobilisation.

(7 Marks)

Please turn the page

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> 4. With reference to Brian Mulligan's theory for treatment of the spine. Justify the use of 'SNAGS' and 'NAGS' in the treatment of spinal pain and dysfunction.

Include in your answer;

a) Brian Mulligan's concept of dysfunction in the spine.

(10 Marks)

b) Principles of treatment and indications.

(10 Marks)

c) Precautions.

(5 Marks)

5. a) Explain what is meant by the term 'Red Flags' and if identified, how this would affect your treatment of a spinal condition.

(7 marks)

b) Identify 3 major pathologies of the spine, and the signs and symptoms associated with each.

(18 marks)

End of Questions