3.4 Thorax

Name: _____ Class: _____ Date: _____ **Total: 24 marks**

KEY WORDS mediastinum

Objective

Localise mediastinal structures and read the two nerve routes past the lung root.

1 Key knowledge and worked examples

■ The box and its anchors

Middle mediastinum = heart + pericardium (two-thirds left); posterior = aorta + oesophagus. Bifurcation at the sternal angle (T4/5); arch branches: brachiocephalic, L carotid, L subclavian; apex at L5 ICS MCL.

■ Worked example: the two routes

Phrenic (C3–5) ANTERIOR to the root → diaphragm irritation refers to the shoulder tip; vagus POSTERIOR → left recurrent laryngeal under the arch → hoarseness ✓.

2 Practice

2.1 Which nerve supplies motor power to the diaphragm, and from which roots? [3]

2.2 Where does the trachea bifurcate? [3]

2.3 Why is pericardial tamponade lethal at 100–200 mL? [3]

3 Exam-style questions

3.1 A mass at the left lung root: hoarseness plus left shoulder tip pain.

Explain both symptoms from the two nerve routes. Predict the order of signs if the mass grows anteriorly vs posteriorly. State the examination for each. [8]

3.2 A stabbing chest injury: hypotension, engorged neck veins, muffled sounds.

Name the anatomy (pericardium as a closed bag) and the mechanism (diastolic filling collapse). Explain why the pulse may fall on inspiration. State the intervention's anatomical route and target. [7]