Trace Element Deficiency in Sheep

Please circle one answer only e.g. A

1. There is considerable interplay between trace element deficiency states and which other disease complex?
   A. Parasitic gastroenteritis (PGE)
   B. Liver fluke infestation
   C. Coccidiosis
   D. Lameness

2. Which of the following trace elements commonly causes a deficiency state in growing lambs?
   A. Calcium
   B. Lead
   C. Iodine
   D. Cobalt

3. Cobalt has an important biological role as a constituent of:
   A. Vitamin B1
   B. Vitamin B2
   C. Vitamin B6
   D. Vitamin B12

4. Pine in lambs can occur:
   A. Where there are low soil cobalt concentration
   B. Where there are high soil cobalt concentrations
   C. Where there are high soil molybdenum concentrations
   D. Where there are high soil sulphur concentrations

5. Clinical signs of cobalt deficiency are most commonly observed:
   A. In one to four week-old lambs
   B. In five to eight week-old lambs
   C. In lambs at pasture during mid summer
   D. In weaned lambs at pasture during late summer/autumn

6. Pine in growing lambs can be prevented in most situations by which of the following strategies?
   A. A single drench of copper given to lambs at day-old
   B. A single drench of cobalt given to lambs at month-old
   C. Monthly dosing lambs from around three month-old with cobalt drenches
   D. Dosing lambs with a cobalt drench at weaning
7. **Veterinary diagnosis of poor growth in lambs reveals only cobalt deficiency. The most cost-effective treatment is:**
   A. A cobalt drench
   B. An injection of vit B12 and cobalt drench
   C. A soluble glass boluses containing cobalt, selenium and copper
   D. A cobalt oxide containing bolus

8. **Swayback in newborn lambs is caused by:**
   A. Copper deficiency in ewes during early pregnancy
   B. Copper deficiency in ewes during mid-pregnancy
   C. Copper deficiency in ewes during late pregnancy
   D. Cobalt deficiency in ewes during mid-pregnancy

9. **White muscle disease is caused by:**
   A. Cobalt deficiency
   B. Copper deficiency
   C. Copper poisoning
   D. Selenium/vitamin E deficiency

10. **The most cost-effective method to supplement growing lambs with selenium is:**
    A. A drench containing selenium
    B. Free-access licks/minerals
    C. A soluble glass boluses containing cobalt, selenium and copper
    D. Top dressing pasture with selenium salts