**Answers**

**Neoplasia I: Benign and malignant neoplasms in glandular epithelium and mesenchyme – Examples in Veterinary Medicine**

**Colon carcinoma:**  P2009-427A

Q  Describe the slide, identify the pathological process and give a diagnosis

A  The section of a canine colon shows a poorly demarcated, non-encapsulated proliferation of neoplastic cells, extending from the upper levels of the mucosa and infiltrating through the full thickness of the mucosa, submucosa and focally into the muscularis layer of the colon. The neoplastic cells form variably-sized tubules filled with variable amounts of eosinophilic granular material (necrotic and apoptotic cells with cellular debris), with moderate amounts of multifocal deposition of basophilic amorphous material (mineralisation; calcium deposit, presumptive). The tubules are lined by columnar, cuboidal to flattened epithelial cells. Individual neoplastic cells have small to moderate amounts of cytoplasm, indistinct cell borders and round to elongated nuclei with coarsely stippled chromatin. Anisokaryosis (variation in size/shape of nuclei) is marked and mitotic figures are 3 per 10 high power fields. An intense fibroblastic response (scirrhous reaction) is present around the infiltrating tumour deposits.

**Diagnosis: Adenocarcinoma, colon**