

# Pathology Final 2013

- 1- Not a member of the mononuclear phagocyte system – neutrophil
- 2- Wrong about neutrophil – never found in chronic inflammation
- 3- Example on serous inflammation – blisters
- 4- Wrong about exudate – low protein
- 5- Causes caseous granuloma – TB
- 6- Wrong about complement – found in lysosome
- 7- Causes vasodilation – NO
- 8- Anti-inflammatory – IL-10
- 9- True about M1 macrophage – phagocytosis
- 10- Produced by lipoxygenase – leukotriene (or lipoxin)
- 11- Alcoholic, pancreas with high amylase and lipase – necroptosis (maybe)
- 12- Ionizing radiation injury – inhibited endonuclease
- 13- Doesn't cause metastatic calcification – Hypovitaminosis D (most likely)
- 14- Wrong about stem cells – replicate infinitely regardless to their source
- 15- Pirate eating sea food, depressed, bleeding tendency, loose teeth – lysyl-hydroxylase and its role in collagen cross linking
- 16- Regulate cell proliferation, migration and adhesion – proteoglycans
- 17- Not a function of ECM – regulate cell interactions via cadherins
- 18- Why scar was formed in a liver? – destroyed connective tissue architecture
- 19- Sutures, infected and enlarged, the wound became smaller though, why? – wound contraction by myofibroblasts
- 20- Sutures, clean small wound, what is wrong – tissue strength highly retained after suture removal
- 21- Which is not benign – meningioma
- 22- Best way to define malignancy – invasion (metastasis was not an option)
- 23- Best possible prognosis of prostate cancer – no metastases (maybe)
- 24- Wrong about sarcoma spread – skeletal muscles are a very common site of spread
- 25- Wrong about metastasis – Histopathologic analysis of enlarged lymph nodes is not necessary
- 26- Wrong about Jordan – Breast cancer is the most common cancer (most likely)
- 27- Wrong hypothesis about decrease in cervical cancer incidence – age at first intercourse is lower in western world
- 28- Prostate tumor, a guy making Toyota Priuses – cadmium
- 29- Example of an autosomal dominant inheritance of loss of a tumor suppressor – BRCA (not sure if the question was like that)
- 30- Least likely to cause cancer – Leiomyoma of the uterus
- 31- True about follicular B cell lymphoma – BCL2 overexpression leading to indolent growth
- 32- Wrong about BCR-ABL fusion gene – treated with sunitinib
- 33- ERBB2 oncogene is due to – gene amplification
- 34- Gastric cancer with deficient p16 and p14, why? – lack of DNA methylation

- 35- Wrong about glioblastomas – produce large amounts of HGF at their advancing edges (the stroma actually produces it)
- 36- Mimics RAS dysregulation due to mutated GAP – PI3K/Akt
- 37- Causes melanoma – more than one (tanning and germline CDKN2A mutation)
- 38- Wrong about RB –can't remember
- 39- Not affected directly by RB mutation – can't remember but was A
- 40- Not associated with Li-fraumeni – inappropriate MYC expression (most likely)
- 41- Example of a tumor suppressor gene – RB (the question was not exactly this way)
- 42- Pancreatic cancer most likely caused by – TGF- $\beta$ /SMAD mutation
- 43- Increased expression associated with metastasis –  $\beta$ -catenin
- 44- Not a means of evading cell death – overexpression of APAF-1
- 45- Caused by an abnormal nucleotide excision repair gene – xeroderma pigmentosum  
OR Caused by an abnormal nucleotide excision repair gene COPY – none of above
- 46- Chances of getting cancer because of ionizing radiation increase when – mutated ATM
- 47- Wrong about BRCA breast cancer – can't remember
- 48- A tumor in ovary, with bone, cartilage, epithelial and fibrous cells – teratoma (most likely because in a gonad)
- 49- Wrong about viral T cell leukemia – the virus produces TAX oncogene (not oncogene) that directly binds to and activates cyclins
- 50- Wrong about viral squamous cell carcinoma – the HPV virus infection is sufficient to cause transformation (most likely)
- 51- Wrong about the virus associated with kissing disease – the EBV expresses LMP1 in burkitt lymphoma
- 52- Not caused by viral or bacterial infection – mesothelioma
- 53- An immune evasion mechanism that triggers innate immunity – absence of MHC
- 54- Not produced by carcinoma of lung – erythropoietin
- 55- A 4-cm tumor, with local lymph node involvement and metastasis – T4N1M1