#### Memory Test - Neoplasm & Inflammation Class Test Crash Foundation

Total Mark: 100 Time: 90 Min

1.	Reg	ardi	ng	p53	gene

- A) Called guardian of the genome
- B) 20% human tumor contain mutation in this
- C) Links cell damage to DNA repair, cell cycle arrest and apoptosis.
- D) Heterozygous loss of p53 leading to malignant tumor
- E) Repair damaged DNA by G1 arrest & inducing

Answer: T, F, T, F, F

Discussion:

**Reference:** [Ref: Robbins 10th /P-211]

2. A patient came to you with H/O of abdominal pain □ progressive jaundice, which of the following investigation is mostly accurate for screening hepatobiliary malignancy?

A) □- Fetoprotein

B) CEA

C) CA-125

D) CA19-9

E) □2microglobulin Answer: T, T, F, F, F

Discussion:

Reference: [Ref: Robbins Pathology/P-337]

#### 3. Activated Macrophages release:

- A) Nitrous oxide
- B) Acid hydrolase
- C) TGF-□
- D) TNF-□
- E) Plasminogen activator

Answer: F, T, T, F, T

Discussion:

**Reference:** (Ref: Robbins/9th /96)

#### 4. Chemo sensitive cancers are

- A) Testicular cancers
- B) Melanoma
- C) Lymphoma
- D) Leiomyosarcoma
- E) Rhabdomyosarcoma

Answer: T, F, T, T, T

Discussion: Reference:

#### 5. Exfoliative cytology is useful for the Diagnosis of

- A) Thyroid CA
- B) CA of urinary bladder
- C) Ovarian Ca
- D) Bronchial CA
- E) Salivary gland neoplasm

Answer: F, T, F, T, F

Discussion:

Reference: [Ref: Robbins 10th /P-238, Khaleque

/P-71]

#### 6. Fine needle Aspiration Cytology

- A) Carries little risk of mortality and morbidity
- B) Is an expensive diagnostic procedure
- C) Is more informative than biopsy
- D) Can be done at outpatient departments
- E) Is useful in evaluating lymph node metastasis

Answer: T, F, F, T, T

Discussion:

**Reference:** [Ref: Robbins 10th /P-238]

#### 7. Fixatives most commonly used in laboratory -

- A) 2% Guteraldehyde
- B) Absolute alcohol
- C) 25% formaldehyde
- D) 10 % buffered formalin

E) N/S

Answer: T, T, T, T, F

Discussion: Reference:

#### 8. Following mediators causing both vasoconstriction and increased vascular permeability

- A) PAF
- B) TXA2
- C) Substance P
- D) LTD4
- E) C3a & C5a

Answer: T, F, F, T, F

Discussion:

**Reference:** (Ref: Robbins/9th/85)

#### 9. Followings are childhood malignant tumours 10. Frozen section A) Determine rapidly whether a tumor is benign A) Leukemia or malignant B) Rhamdomyosarcoma B) Easily available in all settings. C) Haemangioma C) Highly accurate in experienced hand. D) Hepatocellular carcinoma D) Tissue should be sent without preservatives. E) Retinoblastoma Answer: T, T, F, T, T E) Can determine the grading of a tumor. Answer: T, F, T, T, F Discussion: Reference: [Robbins &cotrans 9th, P475] Discussion: Reference: [Ref: Robbins 10th /P-237, B&L 27th /P-238] 11. Grading of cancers 12. Histamine is stores in A) Grade-I indicates >75% cell differentiation A) White blood cell B) Done on degree of aggressiveness B) Basophil C) 30% cell differentiation indicates grade IV C) Cells in the gastric mucosa D) Related to nuclear size D) Platelet E) Extent of distant metastasis E) Neurons in the CNS Answer: T, T, F, F, F Answer: F, T, F, T, F Discussion: Discussion: Reference: [Ref: Robbins 10th /P-236, Khaleque **Reference:** (Ref: Robbins/9th /83) /P-71] 13. Hormone producing tumors of the ovary 14. Locally malignant tumors are A) Brenner's tumor A) Ameloblastoma B) Hilus cell tumor B) Astrocytoma C) Squamous cell carcinoma C) Dysgerminoma D) Theca cell tumor D) Basal cell carcinoma E) Pleomorphic adenoma E) Struma ovary Answer: T, T, F, T, T Answer: T, T, F, T, F Discussion: Discussion: **Reference:** (Explanation: c) [Ref: Smiddy/Q18.9] **Reference:** [Ref: Khaleque /P-62] e) [Ref: Smiddy/Q14.5 option d] 15. Lungs cancer associated with 16. Noncaseating granuloma found in A) Hypercalcemia A) Soft tubercle of TB B) Cushing's syndrome B) Lepromatous leprosy C) Toxoplasmosis C) SIADH D) Ulcerative colitis D) Cerebellar degeneration E) Dermatomyositis E) Brucellosis Answer: T, T, T, T, T Answer: F, F, F, F, F Discussion: TTTT (Also called paraneoplastic Discussion: (all epithelioid cell granuloma)

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**Reference:** (Ref : Khaleque : 32)

cerebellar degeneration PCD, also caused by

ovarian and breast cancer) T

Reference:

#### 17. Precancerous conditions of skin are

- A) Bowen's disease
- B) Blue naevus
- C) Paget's disease
- D) Papillary wart
- E) Solar keratosis

Answer: T, F, T, T, T

**Discussion:** (Explanation: Previous discussion + c)

Extra mammary Paget's disease

Reference: [Ref.Robbin's 9th P279+ Bailey &

love/27th/Skin and subcutaneous tissue, Collection

from many sources

#### 18. Prostaglandins are

- A) Formed from complement
- B) Vasodilators
- C) Involved in clotting
- D) Inhibited by azathioprine
- E) Inhibited by aspirin

Answer: F, T, T, F, T

Discussion:

**Reference:** (Ref: Robbins/9th/84)

#### 19. Regarding Nitric oxide-

- A) May synthesized from neurons
- B) Enzyme nitric oxide reductase needed
- C) There are 4 subtypes
- D) It reduces platelet aggregation
- E) Abnormal production occurred in DM

Answer: T, F, F, T, T

**Discussion:** (No syntheses)F(3) TT(Also HTN,

atheroscleron)

**Reference:** (Ref : Robbins/9th/80)

#### 20. Regarding SCC

- A) Less common than BCC
- B) Locally invasive
- C) Spread by LN in Margolin's ulcer
- D) Common in female
- E) Proliferative type is cauliflower like

Answer: T, F, F, F, T

Discussion:

**Reference:** [Ref: SRB/6th/P-281]

#### 21. Staging of a cancer

- A) Is based on the size of the primary lesion
- B) Is of greater clinical value than grading
- C) Is based on the degree of differentiation of tumour cells
- D) Depends on the presence or absence of blood borne metastasis
- E) Is based on the number of mitoses within the tumour

Answer: T, T, F, T, F

Discussion:

Reference: [Ref: Robbin's 9th P332+Khaleque

pathology p86]

## 22. The main components of the pyogenic membrane are:

- A) Eosinophils
- B) Capillary loops
- C) Hyaluronidase
- D) Polymorphonuclear leucocytes

E) Fibroblasts

Answer: F, T, F, T, T

Discussion:

**Reference:** (Ref : Robbins/9th/91)

## 23. O2□independent killing mechanisms in neutrophil

- A) MPO-Halide
- B) Lactoferin
- C) Reactive nitrogen intermediate
- D) Cationic proteins
- E) Lysoenzyme

Answer: F, T, F, T, T

Discussion:

**Reference:** (Ref: Robbins/9th/80)

## 24. The following belong to the mononuclear phagocyte system:

- A) Macrophages
- B) Mast cells
- C) Epithelioid cells
- D) Fibroblast
- E) Kupffer cells

Answer: T, F, T, F, T

Discussion:

**Reference:** (Ref: Robbins/9th/94)

#### 25. Transudate differed from exudate

- A) Specific gravity is higher than exudate
- B) Protein distribution as present in plasma
- C) Total protein count less than 1gm/dl
- D) Has tendency to clot
- E) Few cells may present where all are mesothelial

Answer: F, F, T, F, T

Discussion: (mostly albumin)TF(has no

fibrinogen)T

**Reference:** (Ref : Robbins/9th/73)

#### 26. Which of the following is not an oncogene?

- A) ras
- B) myc
- C) sis.
- D) Ki 67
- E) erb-B

Answer: D

Discussion: Ki 67 is a nuclear proliferation marker (used in immunohistochemistry). Although, Ki67 positivity is a marker of malignancy, it isnot itself, an oncogene

Reference:

#### 27. A 12 yr old boy complaints of leg pain and swelling. An x ray of affected limb shows the classic sign of Codman's triangle. Which of the following is most likely diagnosis?

- A) Aneurysmal bone cyst
- B) Ehondro sarcoma
- C) Multiple myeloma
- D) Osteomyelitis
- E) osteosarcoma

Answer: E Discussion:

**Reference:** [Ref: MRCS Past test]

#### 28. A 16-year-old boy develops a painful swelling of his distal femur. An osteoblastic sarcoma is diagnosed. To which of thefollowing sites is this lesion most likely to metastasise?

- A) Inguinal lymph nodes
- B) Common iliac lymph nodes
- C) Liver
- D) Brain
- E) Lung

**Answer:** E

**Discussion:** Sarcomas in which Lymphatic

Metastasis is seen:

Reference:

#### 29. A 56-year-old man is diagnosed as having a glioma. From which of the following cell types do these tumours usually originate?

- A) Astrocytes
- B) Oligodendrocytes
- C) Ependymal cells
- D) Squamous cells
- E) Neuroglial cells

Answer: E

Reference:

**Discussion:** Gliomas originate from glial (otherwise known as neuroglial) cells. These serve a structural function in the CNS. The tumours produced may resemble a number of CNS cell types. Tumours are therefore named according to the cells they resemble rather than the origin. Where this is not possible they are termed gliomas.

#### 30. A 6 years old child has been diagnosed with medulloblastoma. In children, medulloblastomas usually originate in the region of the:

- A) Cerebellar vermis
- B) Cerebral hemisphere
- C) Fourth ventricle
- D) Filum terminal
- E) Pons

Answer: A Discussion:

**Reference:** [Ref: Robbins 10th /P-286]

- 31. A macrophage is a type of cell with diverse functions and plays a significant role in adaptive immunity, wound healing and muscle regeneration. Which one of the following statements is correct of macrophages?
- A) They are derived from blood lymphocytes
- B) They are capable of phagocytosis
- C) They have a shorter survival than neutrophils outside the circulation
- D) They produce immunoglobulins
- E) They do not multiply

Answer: B Discussion:

Reference: (Ref: Khaleque: 30)

#### 32. Best impression regarding malignant tumour

- A) Undifferentiated always but never be well differentiated
- B) Nucleuscytoplasmic ratio never be 1:1
- C) Can never be surrounded by capsule
- D) Metastasis is the ultimate fate
- E) Infiltration is surrounded by normal and healthy tissue

Answer: E Discussion:

**Reference:** [Ref: Robbins 10th /P-192,193]

#### 33. CEA is a tumour maker of

- A) Pheochromocytoma
- B) Nasopharyngeal CA
- C) Medullary CA of thyroid
- D) Prostate cancer
- E) Bladder cancer

Answer: C Discussion:

Reference: [Ref: Robbins 9th /P-337 ,Davidson's

23rd /P-1324]

- 34. Complement mediators acts as major anaphylatoxin
- A) C3a
- B) C5a
- C) C3b
- D) C4a
- E) C9b **Answer:** B

Answer: B Discussion:

**Reference:** (Ref : Robbins/9th/88)

- 35. During an oncology department multidisciplinary meeting the consultant oncologist mention that a patient has a very radiosensitive tumor, which of the following tumors is the consultant most likely to be referring to
- A) Chondro sarcoma
- B) Endometrial CA
- C) Gastric CA
- D) Ovarian CA
- E) Seminoma **Answer:** E

Answer: E Discussion:

**Reference:** [Ref: SRB/6th/P-1127]

- 36. Granuloma are found in the following conditions except-
- A) Leprosv
- B) Syphilis
- C) Brucellosis
- D) Rickettsia
- E) Cryptococcosis

Answer: D Discussion:

**Reference:** (Ref : Khaleque : 31)

37. In an experiment, streptococcus pneumoniae organisms are added to a solution containing leukocytes. Engulfment and phagocytosis of the microbes is observed to occur. A substance is then added that enhances engulfment. Which of the following substances is most likely to produce this effect?

A) Glutathione peroxidase

- B) Complement C3b
- C) Immunoglobulin M
- D) P-selectin
- E) NADPH oxidase

Answer: B Discussion:

Reference: (Ref: Pastest Q:2.20)

38. Lung carcinoma is associated with all except

A) Radon

- B) Benzene
- C) Beryllium
- D) Chromium

E) Asbestos

Answer: B Discussion:

Reference: [Ref: Robbins 10th /P-198]

#### 39. Main source of histamine

- A) Mast cell
- B) Basophil
- C) Platelet
- D) Leukocyte
- E) Endothelial cell

Answer: A Discussion:

Reference: (Ref: Robbins/9th/83)

40. Malignant tumors are all except

A) Hepatoma

- B) Seminoma
- C) Meningioma
- D) Chorio carcinoma
- E) Melanoma

Answer: C Discussion:

Reference: [Ref: Robbins 10th /P-192,Khaleque

/P-58

## 41. Reversible loss of polarity with abnormality in site & shape of cell is known as

- A) Metaplasia
- B) Dysplasia
- C) Hyperplasia
- D) Anaplasia
- E) Neoplasia
  Answer: B
  Discussion:

**Reference:** [Ref: Robbins 10th /P-294]

42. Site of RB1 is

- A) Cell surface
- B) Inner aspect of plasma membrane
- C) Cytoskeleton
- D) Nucleus
- E) Ctyosol

Answer: D Discussion:

**Reference:** [Ref: Robbin's 9th P291 table7.7]

- 43. The histopathology report for a granulomatous lesion suggests chronic inflammation. Which cell types are most commonly seen in tissue undergoing chronic inflammation?
- A) Eosinophils
- B) Lymphocytes
- C) Mast cells
- D) Neutrophils
- E) Platelets **Answer:** B **Discussion:**

**Reference:** (Ref: Robbins 9th/P-93)

#### 44. Vasodilatation first involved

- A) Venules
- B) Capillaries
- C) Post capillary venules
- D) Arterioles
- E) Meta arterioles

Answer: D
Discussion:

**Reference:** (Ref : Robbins/9th/73)

## 45. Which cytokine is responsible for insulin resistance?

A) IL-1

B) IL-6

C) IL-12

D) IL-17

E) IFN-□ **Answer:** A

Discussion:

Reference: (Ref: Robbins/9th/86)

## 46. Which of the following is the most common childhood brain tumour?

- A) Glioblastoma multiforme
- B) Astrocytoma
- C) Medulloblastoma
- D) Ependymoma
- E) Meningioma

Answer: C

**Discussion:** Glioblastoma multiforme is rare in childhood. In contrast, medulloblastoma (more correctly termed primitive neuroectodermal tumours) is the commonest brain tumour in children, and the 2nd commonest malignant solid neoplasm in children.

Reference:

## 47. Which of the following types of inflammation is most likely to be characterised by Langhans giant cells?

- A) Fibrinous inflammation
- B) Granulomatous inflammation
- C) Purulent inflammation
- D) Serous inflammation
- E) Suppurative inflammation

Answer: B Discussion:

Reference: (Ref: Pastest Q:2.33)

#### 48. Which one is the principal cell of granuloma

- A) Plasma cell
- B) Epithelioid cell
- C) Langshan's giant cell
- D) dMacrophage
- E) Lymphocyte

Answer: E Discussion:

Reference: (Ref: Khaleque: 30)

# 49. A 73 year old man presents with haemoptysis and is suspected of suffering from lung cancer. On examination he has an enlarged supraclavicular lymph node. Which of the following features is most likely to be present on

histological examination?

- A) Increased mitoses
- B) Apoptosis
- C) Barr Bodies
- D) Multinucleate giant cells
- E) Granuloma

Answer: A

Discussion: Increased mitoses are commonly seen in association with malignant transformation of cells. Apoptosis is not a common featureof metastatic cancer. Barr Bodies are formed during X chromosome inactivation in female somatic cells. Histopathology of malignancy: Abnormal tissue architecture. Coarse chromatin. Invasion of basement membrane\*. Abnormalmitoses. Angiogenesis. De-differentiation. Areas of necrosis.

Nuclear pleomorphism

Reference:

## 50. Causal mechanism of dermatomyositis as a paraneoplastic syndrome

- A) Immunologic
- B) Unknown
- C) Tumor product
- D) TGF-a
- E) IL-1

Answer: A Discussion:

Reference: [Ref: Robbins 10th /P-237,Davidson's

23rd /P-1325]