Memory Test - Cell Injury & Inflammation_Class Test_DDP_Foundation

Total Mark: 100
Time: 90 Min

1. Free radicals are generated
A) During inflammation
B) By glutathione
C) By ceruloplasmin
D) By enzymatic metabolism of drugs
E) During normal metabolic process
Answer: T, F, F, T, T
Discussion:
Reference: [Ref: Robbin's 9th ,P-47,48]

2. 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)

3. Adaptive response -
A) Metaplasia
B) Hyperplasia
C) Dysplasia
D) DIC findings
E) Atrophy
Answer: T, T, F, F, T
Discussion:
Reference: [Ref: Robbin's/9th/P-38]

4. Autophagy
A) Act as a defense against cancers
B) Is an irreversible change
C) Degrades mycobacteria
D) Impaired formation causes Huntington disease
E) Increased formation causes Alzheimer disease
Answer: T, F, T, T, T
Discussion: TF (Reversible)TTT
Reference: [Ref: Robbin's 9th ,P-60,61]

5. Following mediators released from mast cell
A) Histamine
B) Serotonin
C) PAF
D) ROS
E) IL-I
Answer: T, F, T, F, T
Discussion:
Reference: (Ref: Robbins/9th/83)

6. Granulomatous inflammation
A) Is a type III hypersensitivity response
B) Shows dominant infiltration of tissue by plasma cells
C) Contains epithelioid cells derived from tissue histiocytes
D) Occurs in sarcoidosis
E) Occurs in visceral leishmaniasis
Answer: F, F, T, T, F
Discussion:
Reference: (Ref : Robbins/9th/97)

7. Hemorrhagic inflammation found in
A) Meningococcal septicemia
B) Plague septicemia
C) Acute influenza
D) Rickettsiadisease
E) Herpes encephalitis
Answer: T, T, T, T, F
Discussion:
Reference: (Ref: Khaleque: 27)

8. Histamine is stores in
A) White blood cell
B) Basophil
C) Cells in the gastric mucosa
D) Platelet
E) Neurons in the CNS
Answer: F, T, F, T, F
Discussion:
Reference: (Ref: Robbins/9th /83)

9. Intra cellular accumulation of cholesterol occurs in
A) Atherosclerosis
B) Xanthoma
C) Niemann-Pick disease ,type C
D) Arteriosclerosis
E) Oncocytoma
Answer: T, T, T, F, F
Discussion:
Reference: [Ref: Robbin's 9th ,P-62]

10. Major opsonin include-
A) C5a
B) C3b
C) Fab portion of IgG
D) Mannan Binding Lectin (MBL)
E) Fibronectin
Answer: F, T, F, T, T
Discussion:
Reference: (Ref: Khaleque : 20)

11. Noncaseating granuloma found in
A) Soft tubercle of TB
B) Lepromatous leprosy
C) Toxoplasmosis
D) Ulcerative colitis
E) Brucellosis
Answer: F, F, F, F, F
Discussion: (all epithelioid cell granuloma)
Reference: (Ref : Khaleque : 32)

12. Pathological calcification may be seen in following condition
A) Hodgkin's Lymphoma
B) Oligohydroglioma
C) Enzymatic fat necrosis
D) In fatty liver
E) In papillary carcinoma of thyroid
Answer: F, T, T, F, T
Discussion:
Reference: [Ref: Robbin's 9th ,P-65]

13. Phagocytosis is promoted by:
A) Hyaluronidase
B) Neuraminidase
C) The hexose monophosphate shunt
D) Immunoglobulin
E) Complement
Answer: F, F, F, T, T
Discussion:
Reference: (Ref: Robbins/9th/78)

14. 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)

15. 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)

16. Regarding Reversible cell injury-
A) Cellular swelling
B) Mitochondrial swelling
C) Fatty change
D) Swelling of lysosomes
E) Damage to plasma membrane
Answer: T, F, T, F, F
Discussion:
Reference: [Ref: Robbin's/9th/P-40/ Kaplan pathology /P-8]

17. Restoration of blood flow to an area of ischemia-
A) Will result in recovery of necrosed cells
B) Produce reperfusion injury through free radicals
C) Cause further cell death exclusively by apoptosis
D) Prevents further tissue damage by necrosis if re-established within 48 hours
E) May produce tissue damage through IgM mediated complement activation
Answer: F, T, F, F, T
Discussion:
Reference: [Ref: Robbin's 9th ,P-51]

18. Statement regarding apoptosis are
A) It is a programmed cell death
B) The dead cells are rapidly cleared
C) Inflammation surrounds the apoptotic focus
D) Cell membrane damage is a constant feature
E) It may co-exist with necrosis
Answer: T, T, F, F, T
Discussion:
Reference: [Ref: Robbin's 9th ,P-52, 53]

19. Steatosis
A) Is caused by alcohol abuse only
B) May lead to cirrhosis
C) May lead to hepatocellular carcinoma
D) Is only seen in liver
E) May occur in heart
Answer: F, T, T, F, T
Discussion:
Reference: [Ref: Robbin's 9th ,P-845, 846]

20. The sites where metastatic calcification occurs -
A) The kidney
B) The wall of inferior vena cava
C) Old tuberculous lesions
D) Atheroma
E) The cornea
Answer: T, F, F, F, T
Discussion:
Reference: [Ref: Smiddy Que -9.6, Page -163 ,2ndedition]

21. Which of the following statements about ischemia- reperfusion syndrome is correct?
A) This refers to the cellular injury because of direct effects of tissue hypoxia
B) It is seen after the normal circulation is restored to the tissues following an episode of hypoperfusion
C) The increased sodium load can lead to myocardial depression
D) This is influenced by the duration and extent of tissue hypoperfusion
E) It usually does not cause death
Answer: F, T, F, T, F
Discussion: F T F(Acid and K+ load directly lead to myocardial depression) T F
Reference: [Ref: Robbins 10th /P-43 [Ref: Khaleque /P-6]

22. Liquefactive necrosis occurs in
A) Fungal infection
B) Bacterial infection
C) Hypoxic injury in brain
D) Ischemic injury in ovary
E) Acute inflammation of pancreas
Answer: T, T, T, F, F
Discussion:
Reference: [Ref: Robbin's 9th ,P-43]

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. In irreversible cell injury there is
A) ATP depletion
B) Decreased protein synthesis
C) Increased PH
D) Cell membrane damage
E) Shrinkage of endoplasmic reticulum
Answer: D
Discussion:
Reference: [Ref: Robbin's 9th ,P-40, 41,44]

27. A 16-year-old boy with a 1-day history of sore throat was seen by his GP. On physical examination, the most prominent finding was a pharyngeal purulent exudate. Which of the following types of inflammation does this boy have?
A) Acute inflammation
B) Abscess formation
C) Chronic inflammation
D) Granulomatous inflammation
E) Resolution of inflammation
Answer: A
Discussion:
Reference: (Ref: Pastest Q:2.16)

28. A 22 year old lady presents with an episode of renal colic and following investigation is suspected of suffering from MENIIa. Which of the following abnormalities of the parathyroid glands are most often found in this condition?
A) Hypertrophy
B) Hyperplasia
C) Adenoma
D) Carcinoma
E) Metaplasia
Answer: B
Discussion: MEN IIa: Medullary thyroid cancer.Hyperparathyroidism (usually hyperplasia). Phaeochromocytoma. In MEN IIa the commonest lesion is medullary thyroid cancer, with regards to the parathyroid glands the most common lesionis hyperplasia. In MEN I a parathyroid adenoma is the most common lesion.
Reference:

29. A 23-year-old man suffers a thermal injury to his left hand. It becomes red and painful. Which of the followingmediators are not involved in this process?
A) Histamine
B) Free radicals
C) Prostaglandins
D) Leukotrienes
E) Serotonin
Answer: B
Discussion: Acute inflammation is not mediated by free radicals. Chemical mediators facilitate the spread of inflammation into normal tissueChemical mediators include: Lysosomal compounds. Chemokines such as serotinin and histamine (released by platelets and mastcells). Other enzyme cascades producing inflammatory mediators include: Complement, kinin, coagulation system & fibrinolyticsystem
Reference:

30. A 45-year-old woman is investigatedfor hypertension and is found to haveenlargementof the left kidney. The rightkidneyis smaller than normal. Contraststudies reveal stenosis of the right renalartery. The size change in the right kidneyis anexample of which of the followingadaptivechanges?
A) Aplasia
B) Atrophy
C) Hyperplasia
D) Hypertrophy
E) Metaplasia
Answer: B
Discussion: The decreased size is due to restriction of the blood supply, one of thecauses of atrophy. The increase in size of the opposite kidney is referred to as compensatoryhypertrophy. Unilateral renal artery stenosis is a well-known cause of secondaryhypertension. In this setting, increased renin excretion and stimulation of the renin– angiotensin system results in a form of hypertension that is potentially curable by surgicalcorrection of the underlying vascular abnormality.
Reference:

31. A 53 year old lady has undergone a bilateral breast augmentation procedure many years previously. The implants aretense and uncomfortable and are removed. During their removal the surgeon encounters a dense membrane surrounding the implants, it has a coarse granular appearance. The tissue is sent for histology and it demonstratesfibrosis with the presence of calcification. The underlying process responsible for these changes is:
A) Hyperplasia
B) Dysplasia
C) Metastatic calcification
D) Dystrophic calcification □
E) Necrosis
Answer: D
Discussion: Breast implants often become surrounded by a pseudocapsule and this may secondarily then be subjected to a process ofdystrophic calcification
Reference:

32. Cellular ageing occurs by
A) DNA repair
B) Telomere shortening
C) Decrease insulin or IGF signaling
D) Increase protein homeostasis
E) Decrease in TOR(mammalian target of rapamycin)
Answer: B
Discussion:
Reference: [Ref: Robbin's 9th ,P-66]

33. Complement mediators acts as major anaphylatoxin
A) C3a
B) C5a
C) C3b
D) C4a
E) C9b
Answer: B
Discussion:
Reference: (Ref : Robbins/9th/88)

34. False statement regarding hyperplasia
A) Seen in organs made of labile cells
B) A reversible adaptive change
C) Frequently associated with hypertrophy
D) Seen in epithelium only
E) Lead to malignancy in some cases
Answer: D
Discussion:
Reference: Ref: Robbin's 9th ,P-35,36]

35. Granuloma are found in the following conditions except-
A) Leprosy
B) Syphilis
C) Brucellosis
D) Rickettsia
E) Cryptococcosis
Answer: D
Discussion:
Reference: (Ref : Khaleque : 31)

36. Hydrogen peroxide can be neutralized in our body by the enzyme
A) Myeloperoxidase
B) Catalase
C) Superoxide dismutase
D) Glucose -6-phosphate dehydrogenase
E) Glutathione
Answer: B
Discussion:
Reference: [Ref: Robbin's 9th ,P-48, Table 2-3]

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. Main source of histamine
A) Mast cell
B) Basophil
C) Platelet
D) Leukocyte
E) Endothelial cell
Answer: A
Discussion:
Reference: (Ref : Robbins/9th/83)

39. Metaplasia ,the transformation of one fully differentiated tissue into another, does not occur in
A) Connective tissue elements
B) The gastrointestinal tract
C) The central nervous system
D) The biliary system
E) The urothelium
Answer: C
Discussion:
Reference: [Ref: Smiddy Que -1.6, Page -72 ,2nd edition]

40. Morphological features in apoptotic cells include following except
A) Nuclear fragmentation
B) Chromatin condensation
C) Cytoplasmic belbs
D) Cell swelling
E) Nuclear pyknois
Answer: D
Discussion:
Reference: [Ref: Robbin's 9th ,P-53]

41. Phagocytes are cells that are involved in the immune response by ingesting harmful foreign bodies.Which of the following is an example of a phagocyte?
A) B lymphocyte
B) Mast cells
C) Megakaryocytes
D) Neutrophil polymorphs
E) T lymphocytes
Answer: D
Discussion:
Reference: (Ref : Robbins/9th/78)

42. Psammoma body may found in
A) Coagulative necrosis
B) Fibrinoid necrosis
C) Metastatic calcification
D) Dystrophic calcification
E) Fatty change
Answer: D
Discussion:
Reference: [Ref: Robbins 9th ,65]

43. Regarding moist gangrene
A) Common sites: Exposed part of body e.g Usually lower limbs
B) Line of demarcation: Present
C) Usually not fatal
D) Example:Buerger's disease
E) Spread: Very rapid
Answer: E
Discussion:
Reference: [Ref:Khaleque□P-12]

44. 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)

45. The most probable underlying pathological process is seen in acute abdomen
A) Wet gangrene
B) Coagulative necrosis
C) Gas gangrene
D) Liquefactive necrosis
E) Dry gangrene
Answer: A
Discussion:
Reference: [Ref: Robbins 9th , 43]

46. The presence of non-caseating granulomas and hypercalcemia is most suggestive of?
A) Histoplasmosis
B) Sarcoidosis
C) Tuberculosis
D) Berylliosis
E) Eosinophilic granuloma
Answer: B
Discussion:
Reference: (Ref : Robbins/9th)

47. 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)

48. Which one is the principal cell of granuloma

A) Plasma cell
B) Epithelioid cell
C) Langshan's giant cell
D) Macrophage
E) Lymphocyte
Answer: E
Discussion:
Reference: (Ref : Khaleque : 30)

49. Major platelet eicosanoid
A) Thromboxane A1
B) Thromboxane A2
C) Leukotriene B4
D) Leukotriene C4
E) Prostaglandin D2
Answer: B
Discussion:
Reference: (Ref : Robbins/9th/84)

50. Vasodilatation first involved
A) Venules
B) Capillaries
C) Post capillary venules
D) Arterioles
E) Meta arterioles
Answer: D
Discussion:
Reference: (Ref : Robbins/9th/73)