Memory Test - Cell Injury & Genetics_Class Test_Friday_Mega_1

Total Mark: 100
Time: 90 Min

1. 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]

2. 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:
Reference: [Ref: Robbin's 9th ,P-60,61]

3. Cellular aging
A) Results from DNA damage
B) Is characterized by genetic instability
C) Is not modified by total calorie intake
D) Resulting from elongation of telomerase
E) Results from activation of tumor suppresser genes
Answer: T, T, F, F, T
Discussion:
Reference: [Ref: Robbin's 9th ,P-66,67]

4. Cytogenic disorders involving sex chromosome are
A) Turner's syndrome
B) Klinefelter syndrome
C) Down syndrome
D) Edward syndrome
E) Patau's syndrome
Answer: T, T, F, F, F
Discussion:
Reference: [Ref:Robbin's 9th,P-161-165]

5. Features of autosomal recessive disorders are
A) Does not usually affect the parents of affected individuals
B) Reduce penetrance
C) Onset usually in early life
D) Disease expression not uniform
E) Females are more affected
Answer: T, F, T, F, F
Discussion:
Reference: [Ref:Robbin's 9th,P-141]

6. Features of caseation necrosis
A) Is a distinctive form of coagulative necrosis
B) Is encountered most often in tuberculosis
C) Appears cheesy white on naked eye
D) Implies preservation of basic outline of necrosed cells
E) Is characteristic of fungal infection
Answer: T, T, T, F, F
Discussion:
Reference: [Ref: Robbin's 9th ,P-43]

7. Following are the features of Klinefelter's syndrome
A) Most common karyotype is 47XXX
B) Phenotype is male
C) Usually have short stature
D) IQ normal
E) Usually are infertile
Answer: F, T, F, F, T
Discussion:
Reference: [Ref:Robbin's 9th,P-165]

8. 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]

9. Hypertrophy is associated with
A) An increase in the number of visible mitosis
B) An increase in the bulk of a tissue
C) An increase in the number of cells in an organ or tissue
D) An absolute decrease in interstitial tissues
E) An increase in the functional capacity
Answer: F, T, F, F, T
Discussion:
Reference: [Ref: Smiddy Que -1.2, Page -69 ,2nd edition

10. Hypoxic cell injury kinds to
A) Reduce PH
B) Swelling of the endoplasmic reticulum
C) Reduce lactic acid
D) Influx of potassium
E) Chromatin clumping
Answer: T, T, F, F, T
Discussion:
Reference: (Increased)F(Efflux)T[Ref: Robbin's 9th ,P-45 ,Fig-2-17]

11. 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]

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. 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]

14. 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]

15. 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]

16. 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]

17. Disuses atrophy follows
A) Blockage of the duct of an exocrine gland
B) Immobilisation of a joint
C) Interference with the nerve supply to the muscles controlling joint movement
D) Interference with the blood supply
E) The diminished secretion of trophic hormones

Answer: T, T, F, F, F
Discussion:
Reference: [Ref: Smiddy Que -1.1, Page -69 ,2nd edition]

18. Features of Turner's syndrome is/are
A) Low hair line
B) Pitting edema
C) Shield chest
D) Webbed neck
E) Ventricular septal defect
Answer: T, F, T, , F
Discussion:
Reference: [Ref:Robbin's 9th,P-166,167]

19. 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]

20. Lysosomal storage disease
A) Tay-Sachs disease
B) Sandhoff disease
C) Krabbe disease
D) Fabry disease
E) Gaucher disease
Answer: T, T, T, T, T
Discussion:
Reference: [Ref:Robbin's 9th,P-151,Table-5.6]

21. 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]

22. Structured Necrosis
A) Architecture of dead tissue is preserved for some days
B) Affected tissue exhibit a soft texture
C) Injury denatures both structural protein of enzymes
D) Proteolysis of dead tissue are blocked
E) Occurs in brain
Answer: T, F, T, T, F
Discussion:
Reference: [Ref: Robbin's 9th ,P-43]

23. 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]

24. Which of the following disorders occurs in early life,having complete penetrance, involves in largest category of mandelian disorder
A) Thalassemia
B) Phenylketonuria
C) Von Willebrand disease
D) Congenital adrenal hyperplasia
E) Achondroplasia
Answer: T, T, F, T, F
Discussion:
Reference: [Ref:Robbin's 9th,P-141]

25. X-linked recessive disorders are
A) Diabetesinsioidus
B) Alkaptonuria
C) Polycystic kidney disease
D) Haemophilia
E) Duchenne muscular dystrophy
Answer: T, F, F, T, T
Discussion:
Reference: [Ref:Robbin's 9th,p-142]

26. 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:

27. A 53 year old lady has undergone a bilateral breast augmentation procedure many years previously. The implants are tense 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 demonstrates fibrosis 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:
Reference: Breast implants often become surrounded by a pseudocapsule and this may secondarily then be subjected to a process of dystrophic calcification.

28. Autosomal dominant disorders which one is important to surgeons includes
A) Cystic fibrosis
B) Haemophilia
C) Hereditary spherocytosis
D) Familial agammaglobulinaemia
E) Mucoviscidosis
Answer: C
Discussion:
Reference: [Ref: Smiddy Que-24.8, Page-302,2nd edition]

29. Autosomal recessive disorders involving nervous system
A) Duchenne muscular dystrophy
B) Spinal muscular dystrophy
C) Myotonic dystrophy
D) Becker's muscular dystrophy
E) Fragile X syndrome
Answer: B
Discussion:
Reference: [Ref: Robbin's 9th,P-141]

30. 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]

31. 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]

32. Following are the indications of Barr body analysis except
A) Secondary amenorrhea
B) X-linked condition
C) Severe hypospadias
D) Lymphaedema in newborn
E) Inguinal mass
Answer: A
Discussion:
Reference: (Explanation: a)Primaryamenorrhoea

33. Hemophilic man marries a normal woman. Their offspring will be--
A) All normal
B) All hemophilic
C) All girls- hemophilic
D) All boys- hemophilic
E) All offspring will die in infancy
Answer: A
Discussion:
Reference:

34. 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]

35. 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]

36. Incorrect statement regarding necroptosis
A) Is generally programmed
B) Is characterized by loss of ATP
C) Involves caspose independent pathway
D) Shows rupture of cell membrane
E) Is exclusively pathological
Answer: E
Discussion:
Reference: [Ref: Robbin's 9th,P-59]

37. 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]

38. 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]

39. Part of the chromosome may be lost in
A) Insertion
B) Inversion
C) Ring chromosome
D) Isochromosome
E) Translocation
Answer: C
Discussion:
Reference: [Ref:Robbin's 9th,P-160]

40. 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]

41. The following abnormality lead to generalized pigmentation
A) Peutz-Jeghers syndrome
B) Carcinoid tumors
C) Zollinger-Ellison syndrome
D) Addison's disease
E) Sheehan's syndrome
Answer: D
Discussion:
Reference: [Ref: Smiddy Que -11.3, Page -176 ,2nd edition]

42. 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]

43. Two sex-linked recessive genetic disorders are--
A) Color blindness and hemophilia
B) Down syndrome and cystic fibrosis
C) Color blindness and sickle cell disease
D) Glucose-6PD deficiency and Von willebrand disease
E) Down syndrome and hemophilia .
Answer: A
Discussion:
Reference: (Ref. Robbins 9th P-142 + Davidsons 23rd P-47)

44. Which one of following is not the characteristics of autosomal dominant disorders
A) Late onset
B) No generationgap
C) May produce unaffected child
D) Both male and female can transmit disease
E) Most of the child are sufferer
Answer: E
Discussion:
Reference: [Ref:Robbin's 9th,P-140]

45. A 22 year old lady presents with an episode of renal colic and following investigation is suspected of suffering from MEN IIa. 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 lesion is hyperplasia. In MEN I a parathyroid adenoma is the most common lesion.
Reference:

46. Necrosis in a solid organ due to ischemia
A) Is called infarction
B) Is dusky red in color
C) Is cheesy appearance
D) Is reversed by reperfusion
E) Does not produce any inflammation
Answer: A
Discussion:
Reference: [Ref: Robbin's 9th ,P-43, Khaleque□P-8]

47. 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]

48. Trinucleotide –Repeat disorders affecting coding regions
A) Fragile X syndrome
B) Kennedy disease
C) Myotonic dystrophy
D) Progressive myoclonic epilepsy
E) Friedreich ataxia
Answer: B
Discussion:
Reference: [Ref:Robbin,s 9th,P-168]

49. Which of the following statements relating to gas gangrene is untrue?
A) There is necrosis with putrefaction
B) The causative pathogens may be detected on normal perineal skin
C) Treatment with low dose penicillin is indicated
D) Hyperbaric oxygen may be beneficial
E) Clostridium perfringens is a recognised cause
Answer: C
Discussion: Rapid surgery and high dose antibiotics are indicated in the treatment of gas gangrene.
Reference:

50. Which one is incorrect in case of Down syndrome
A) Gap between first and second toe
B) Umbilical hernia
C) Rectal polyp
D) Hypotonia
E) Intestinal stenosis
Answer: C
Discussion:
Reference: [Ref:Robbin,s 9th,P-162]