

GENESIS

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FCPS PART-I

Review Exam

Batch : Friday Mega Batch 2
Topic : Pathology

Exam Date	: 07/02/20
Total Number	: 100
Exam Time	: 8.00 – 8.45
Pass Mark	: 70

Question 1-50 based on single answers

Genetics

1. Autosomal dominant disease which are important to surgeons includes

- a) Cystic fibrosis
- b) Haemophilia
- c) Hereditary spherocytosis
- d) Familial agammaglobulinemia
- e) Mucoviscidosis

C [Ref: Smiddy 24.8 Que.(2nd Edition)]

2. Following are lysosomal storage disease except

- a) Tay-Sachs disease
- b) Fabry disease
- c) Von Gierke disease
- d) Gaucher disease
- e) Sandhoff disease

C [Ref: Robbin's 9th, Page -151,157]

3. Mosaicism occurs

- a) If non-disjunction occurs in meiosis I
- b) If non-disjunction take place in first cleavage division of the zygote
- c) If it takes take place in meiosis II
- d) If non-disjunction takes in gametogenesis
- e) If non-disjunction takes place before the formation of zygote

B [Ref: Robbin's 9th, Page -159]

4. Part of the chromosome may be lost in

- a) Insertions
- b) Inversions
- c) Ring chromosomes
- d) Isochromosomes
- e) Translocations

C [Ref: Robbin's 9th, Page -160]

5. Which one is not the indication of Barr body analysis

- a) Secondary amenorrhea
- b) X-linked condition
- c) Severe hypospadias
- d) Lymphedema in newborn
- e) Inguinal mass

A (Explanation:a) Primary amenorrhea

6. Trinucleotide-Repeat disorders affecting coding regions

- a) Fragile X syndrome
- b) Kennedy disease
- c) Myotonic dystrophy
- d) Progressive myoclonic epilepsy
- e) Friedreich ataxia

B [Ref: Robbin's 9th, Page -168]

7. Which one of the following is not characteristics of autosomal dominant disorders

- a) Late onset
- b) No generation gap
- c) May produce unaffected child
- d) Both male and female can transmit disease
- e) Most of the child are sufferer

E [Ref: Robbin's 9th, Page -140]

8. 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

C [Ref: Robbin's 9th, Page -162]

9. Which one of the following is not an example of autosomal dominant disease?

- a) Hereditang pancreatitis
- b) Cystic pancreatitis
- c) Acute intermittent porphyria
- d) HCM
- e) Adult polycystic kidney disease

B

10. In the female, following is not true?

- a) All PMN cells have drumsticks looking barr bodies
- b) An extra chromosome is associated with below average intelligence
- c) An extra chromosome is associated with Barr bodies.
- d) Only the X chromosome of maternal origin is active.
- e) The barr body is sex chromatin

D

11. What is the commonest cause of abnormality of chromosome number?

- a) Anaphase lag
- b) Aneuploidy
- c) Non-disjunction
- d) Mutation
- e) Irradiation

C

Neoplasm

12. Recognized precancerous condition exclude

- a) Peutz-jegher syndrome
- b) The colonic polyps of familial polyposis
- c) Xeroderma pigmentosum
- d) Bowen's disease
- e) Molluseum sebaceum

E [Ref: Smiddy 13.2 Que (2nd Edition)]

13. Which tumor does not secrete hormones

- a) Carcinoid syndrome
- b) Choriocarcinoma
- c) Benign teratoma of the ovary
- d) Monodermal teratoma of the ovary
- e) Seminoma

C [Ref: Smiddy 14.5 Que (2nd Edition)]

14. Most reliable local finding to diagnose malignancy

- a) Metastasis
- b) Invasion
- c) Hyperchromatic nuclei
- d) Anaplasia
- e) Loss of normal polarity

B [Ref: Robbin's 9th, Page -271]

15. Steps involved in invasion of ECM by tumor cells except

- a) Loosening of extra cellular junctions
- b) Degradation of ECM
- c) Attachment to novel ECM components
- d) Migration of tumor cells
- e) Invasion of tumor cells

A [Ref: Robbin's 9th, Page -306,307]

16. Which one acts on entire cell cycle

- a) Alkylating agent
- b) Anti metabolites
- c) Topoisomerase inhibitors
- d) Glycosides
- e) Platinum analogs

A [Ref: Davison 23rd, Page -1317]

17. Example of oncogenic RNA virus

- a) HBV
- b) HHV-8
- c) HTLV-1
- d) EBV
- e) HPV

C (Explanation : c) HTLV-1 is oncogenic RNA virus

18. Bony metastasis commonly occurs in following site except

- a) Kidney
- b) Prostate
- c) Ovary
- d) Breast
- e) Thyroid

C (Explanation c) Ovary → Less common

19. Which one is incorrect in case of spreading of a tumor by metastasis

- a) Physically discontinuous with the primary tumor
- b) Equivocally marks a tumor as a malignant
- c) Approximately 30% of newly diagnosed solid tumors present with metastasis
- d) Lymphatic vessels located at the tumor margins are sufficient for the lymphatic spread of tumor cells
- e) Para vertebral venous plexus is frequently involved in metastasis of thyroid cancer

B [Ref: Robbin's 9th, Page -272,273]

20. Which of the paraneoplastic syndrome does not cause hypercalcemia

- a) Small cell carcinoma of lung
- b) Squamous cell carcinoma of lung
- c) Breast carcinoma
- d) Renal carcinoma
- e) Adult T-cell leukemia

A [Ref: Robbin's 9th, Page -331]

21. FNAC is suitable in following cases except

- a) Large cell lymphoma
- b) Thyroiditis
- c) Colloid nodule of thyroid
- d) Papillary carcinoma of thyroid
- e) Follicular carcinoma of thyroid

E

22. Fixative used in cytopathology

- a) 37% formaldehyde
- b) 10% formalin
- c) 95% ethanol
- d) Glutaraldehyde
- e) Zenker's 50%

C

Explanation

c) 95% ethanol is used in cytopathology

23. 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

E

24. Which is most likely to indicate that the neoplasm is malignant:

- a) Hyperplasia
- b) Alteration of nuclear cytoplasmic ratio into 1:1
- c) Invasion to surrounding structures
- d) Necrosis
- e) Pleomorphism

C

25. Which one of following is nonencapsulated but benign tumor

- a) Haemangioma
- b) Lymphangioma
- c) Meningioma
- d) Lipoma
- e) Leiomyoma

A

26. Lung carcinoma is associated with all except

- a) Radon
- b) Benzene
- c) Beryllium
- d) Chromium
- e) Asbestos

B

27. Regarding p53 gene false statement is

- a) Defective p53 allows abnormal cell to proliferate
- b) Located on chromosome 27
- c) It can arrest cell growth at G1 point of cell cycle
- d) It can initiate apoptosis
- e) About 50% of human tumors contain mutated p53 gene

B

28. False statements regarding carcinoid tumours:

- a) Low grade malignant in status
- b) Arises from APUD cell of the intestine
- c) Are almost asymptomatic clinically
- d) Secrete prostaglandins
- e) 100% 5 yrs survival with resection

D

Cell Injury

29. Post menopausal ovarian atrophy is associated with the following structural changes except

- a) Stromal hyperplasia
- b) Loss at ovarian weight
- c) A proportionate decrease in size of the medulla
- d) Disappearance of primordial follicles
- e) Persistence of the germinal epithelium

C [Ref: Smiddy 1.4 (2nd Edition)]

30. "Metaplasia , the transform of one fully differentiated tissue into another" Which site does not correlate with statement

- a) Connective tissue elements
- b) The gastrointestinal tract
- c) The central nervous system
- d) The biliary system
- e) The urothelium

C [Ref: Smiddy 1.6 (2nd Edition)]

31. Pyroptosis is associated with following except

- a) Swelling of cells
- b) Loss of plasma membrane integrity
- c) Release of inflammatory mediators
- d) Caspase independent
- e) Forms inflammasome

D [Ref: Robbin's 9th ,Page -59]

32. Which of the statement is incorrect for structured necrosis

- a) Architecture of dead tissue is preserved for some days
- b) Affected tissue exhibit a soft texture
- c) Injury denatures both structural proteins of enzymes
- d) Proteolysis of dead tissue are blocked
- e) Takes acidophilic stain

B [Ref: Khaleque,Page-8]

33. Site of metastatic calcification

- a) Calcification due to renal tumor
- b) Calcification in renal tumor
- c) Calcification following pancreatitis
- d) Psammoma bodies
- e) Placental calcification

A (Explanation :a) Metastatic calcification

34. Cellular aging counter acts by following process except

- a) Decrease TOR
- b) Protein homeostasis
- c) Decrease insulin or IGF signaling
- d) Telomere shortening
- e) Altered transcription

D [Ref: Robbin's 9th ,Page -66, Fig- 2-35]

35. Adenosine triphosphate (ATP) depletion and decreased ATP synthesis are frequently associated With both hypoxic and chemical (toxic) injury. Which of the following is most likely to result from depletion of ATP?

- a) Decreased rate of anaerobic glycolysis
- b) Decreased influx of calcium
- c) Increased activity of ouabain-sensitive Na⁺, K⁺-ATPase
- d) Increased glycogen synthesis
- e) Increased unfolded protein response

E

36. A woman with chronic atrial fibrillation suddenly developed an acute abdomen. On laparoscopy small bowel loops were dusky red in color & mesenteric vein were patent. What is the pathology

- a) Coagulative necrosis
- b) Dry gangrene
- c) Wet gangrene
- d) Gas gangrene
- e) Liquefactive gangrene

C

37. Liquefaction associated with necrosis occurs after infarction

- a) Heart
- b) Kidney
- c) Brain
- d) Lungs
- e) Spleen

C

38. Fat necrosis might be found in which one of the following situations?

- a) Brain injury
- b) Muscle injury
- c) Trauma to the abdomen
- d) Trauma to the breast
- e) Trauma to the bowel

D

39. A 72-year-old man died suddenly from congestive heart failure. At autopsy, the heart weighed 580 g and showed marked left ventricular hypertrophy and minimal coronary arterial atherosclerosis. A serum chemistry panel ordered before death showed no abnormalities. Which of the following pathologic processes best accounts for the appearance of White granular gritty deposit in the aortic valve?

- a) Amyloidosis
- b) Dystrophic calcification
- c) Lipofuscin deposition
- d) Hemosiderosis
- e) Fatty change

B

40. Psammoma body is commonly seen in

- a) Papillary carcinoma of thyroid
- b) Follicular carcinoma of thyroid
- c) Medullary carcinoma of thyroid
- d) Adenocarcinoma
- e) Glioma

A

41. Example of concomitant hypertrophy and hyperplasia is

- a) Breast enlargement at puberty
- b) Cystic hyperplasia of the endometrium
- c) Enlargement of skeletal muscle in athletes
- d) Left ventricular hypertrophy
- e) Uterine growth during pregnancy

E

42. A skin biopsy from an anorexic 16-years old girl showed cellular atrophy, During atrophy

- a) The cell disappears
- b) Cellular organelles swell
- c) Cell size decreases
- d) Cell size increases
- e) Protein synthesis increases

C

43. False statements regarding necrosis and apoptosis

- a) Cellular adaptation is preserver in apoptosis
- b) Total cell content comes out following cell lysis
- c) In atrophied tissue, apoptosis occurs.
- d) Coagulative necrosis may occurs in ischemic brain disease
- e) Gene activation is responsible in both.

E

Healing & Haemodynamics

44. Low risk for thrombosis

- a) Cardiomyopathy
- b) Anti thrombin III deficiency
- c) Burn
- d) Anti phospholipid syndrome
- e) Surgery

A [Ref: Robbin's 9th, Page -123]

45. Following statement regarding septic shock is false

- a) Result from spread of a localized infection
- b) Gram positive bacteria are mostly responsible
- c) Causes immune suppression
- d) Depress myocardial contractility
- e) Peripheral resistance is decreased

B [Ref: Robbin's 9th, Page -131]

46. Angioneurotic edema is associated

- a) Depression
- b) Complement deficiency
- c) Immunoglobulin E
- d) Menstruation
- e) NSAID Poisoning

C [Ref: Smiddy 10.2 (2nd edition)]

47. DIC does not occur in

- a) Missed abortion
- b) Amniotic fluid embolism
- c) Heat stroke
- d) Snake bite
- e) Malaria

A (Explanation :a) Septic abortion

48. Feature of progressive stage of shock is

- a) Bradycardia
- b) Lactic acidosis
- c) Fever
- d) Acute tubular necrosis (ATN occurs in irreversible stage of shock)
- e) Vasoconstriction (Metabolic acidosis blunts vasomotor response & causes arteriolar dilatation)

B

49. Post operative infection delays wound healing because

- a) The wound becomes packed with leucocytes
- b) Many of the organisms involved produce spreading factor which may destroy the intercellular ground substance
- c) Collagen is destroyed
- d) Capillary loops fail to develop
- e) Fibroblast diminished in number

C

50. High risk for thrombosis

- a) Cardiomyopathy
- b) Nephrotic syndrome
- c) Smoking
- d) Tissue injury
- e) Pregnancy

D