



1. The science which deals with the study of diseases.....:

- A. Pathology
- B. Pharmacology
- C. Parasitology
- D. Microbiology

2. Disease is a state in which an individual exhibits andeviation from the normal

- A. Anatomical
- B. Physiological
- C. Biochemical
- D. All of the above

3. The total number of cases in a population.

- A. Incidence
- B. Etiology
- C. Prevalence
- D. Pathogenesis

4. Incidence is.....

- A. The new cases of certain condition within a specified period of time in certain population
- B. The total number of cases in a population
- C. the causes of the disease
- D. The process by which a disease develops

5. Factors directly responsible for a disease

- A. Predisposing factors
- B. Exciting factors
- C. Risk factors
- D. Pathologic changes

1. A	2. D	3. C	4. A	5. B
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6. All of the following are predisposing factors except.....:

- A. Obesity,
- B. Poor ventilation
- C. Age
- D. Defective foetal development in the uterus

7. Which of the following is an endogenous acquired exciting factor.....:

- A. Defective foetal development in the uterus
- B. Microbes
- C. Endocrine disturbance
- D. Race

8. Mechanisms and sequence of events involved in disease development

- A. Pathogenesis
- B. Etiology
- C. Predisposing factors
- D. Morphology

9. Morphology is.....

- A. The process by which a disease develops
- B. The changes induced in the cells and organs of the body and caused by disease
- C. Risk factors which make an individual more susceptible to a disease than others
- D. The clinical effects of the pathological changes

10. A specimen from the lesion during life

- A. Biopsy
- B. Autopsy
- C. Necropsy
- D. None of the above

6. D

7. C

8. A

9. B

10.A

**11. The clinical effects of the pathological changes is.....:**

- A. Prognosis & Fate
- B. Complications
- C. Clinical Signs & Symptoms
- D. Morphology

12. Symptom is

- A. Medical observation
- B. Objective
- C. Determined by a physician during a physical examination of a patient
- D. Not measured

13. Which of the following is an example of a sign

- A. Pain
- B. Elevated blood pressure
- C. Headache
- D. All of the above

14. All of the following are true regarding symptoms except

- A. It is the patient's complaint by his own words
- B. Subjective
- C. Observed by the physician
- D. Not measured

15. The expected outcome of a disease is.....

- A. Prognosis
- B. Complications
- C. Morphology
- D. Etiology

11.C

12.D

13.B

14.C

15.A

**16. Prognosis & fate of the disease depend on.....:**

- A. The disease itself
- B. Patient's related factors
- C. Effective management
- D. All of the above

17. Complications are

- A. Additional pathological changes that aggravate the original disease,
- B. The forecast of the course of a disease
- C. mechanisms and sequence of events involved in disease development
- D. The changes induced in the cells and organs of the body and caused by disease

18. Surgical pathology is mandatory for.....?

- A. Diagnosis
- B. Determination of treatment
- C. Follow up to determine success and effectiveness of therapy
- D. All of the above

19. Therapeutic surgical resection of the entire lesion?

- A. Excision biopsy
- B. Incision biopsy
- C. Punch biopsy
- D. Trucut biopsy

20. Surgical resection of part of the lesion for diagnosis.....

- A. Excision biopsy
- B. Incision biopsy
- C. Punch biopsy
- D. Trucut biopsy

16.D

17.A

18.D

19.A

20.B



21. Regarding Punch biopsy which of the following is correct

- A. Used in case of deep seated lesions
- B. Done by large-bore needles
- C. sometimes radiologically guided
- D. Done for superficial lesions

22. Which of the following obtain fluid from the lesion for cytologic smear preparation?

- A. Punch biopsy
- B. Needle biopsy
- C. Fine needle aspiration
- D. Excision biopsy

23. Specimen obtained by scraping from the surface epithelium of a lesion?

- A. Exfoliative cytology
- B. Brush cytology
- C. Punch biopsy
- D. Trucut biopsy

24. Brush cytology done by?

- A. Fine needle
- B. large-bore needles
- C. Round stiff bristle brush
- D. None of the above

25. Fixation of the specimen is done using.....

- A. 10% formaldehyde
- B. 90 % alcohol
- C. Xylol
- D. Paraffin

21. D	22. C	23. A	24. C	25. A
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**26. Gross examination of the specimen is important for.....:**

- A. Recognition of the anatomic landmarks.
- B. Localization the lesion.
- C. Cutting proper Sections needed for diagnosis
- D. All of the above

27. Which of the following help to identify cell products or surface markers?

- A. Gross examination of the specimen
- B. Microscopic examination using H&E
- C. Microscopic examination using special stains
- D. Immunohistochemistry

28. Specimen is prepared using.....for intraoperative consultation?

- A. Paraffin technique
- B. Frozen section technique
- C. A & B
- D. None of the above

26.D

27.D

28.B



1. All of the following are developmental growth disturbances except.....:

- A. Agenesis
- B. Atrophy
- C. Aplasia
- D. Atresia

2. Acquired growth disturbances include all of the following except.....

- A. Dysplasia
- B. Neoplasia
- C. Heterotopia
- D. Hyperplasia

3. All of the following can lead to congenital abnormalities except

- A. Vitamin A deficiency
- B. Exposure to Radiation.
- C. Rubella infection
- D. Young maternal age < 30 Years

4. Regarding developmental growth disturbances which of the following is true.....

- A. They are due to defective fetal development in utero.
- B. They manifest at birth or shortly after birth
- C. Could be hereditary or congenital
- D. All of the above

5. Solitary kidney is an example of.....

- A. Agenesis
- B. Aplasia
- C. Hypoplasia
- D. Atresia

1. B	2. C	3. D	4. D	5. A
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6. The organ is represented by rudimentary structure is called.....:

- A. Agenesis
- B. Aplasia
- C. Hypoplasia
- D. Atresia

7. Atresia is.....

- A. Congenital absence of an organ
- B. Normal organ structure but fail to reach to adult size
- C. Absence of a normal opening or failure of canalization of hollow organ
- D. Presence of normal tissue in abnormal sites

8. Presence of pancreatic tissue in the stomach is an example of.....

- A. Choristoma
- B. Hypoplasia
- C. Hamartoma
- D. Agenesis

9. A developmental malformation formed of a non-capsulated mass composed of mature tissues of the locality in abnormal quantity and arrangement

- A. Heterotopia
- B. Hamartoma
- C. Hypoplasia
- D. Atresia

10. Which of the following is a developmental growth disturbances?

- A. Hamartoma of lung
- B. Uterine hypertrophy
- C. Barrette's esophagus
- D. Hyperplasia of female breast

6. B	7. C	8. A	9. B	10.A
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**11. The normal ability of cells to maintain stable physiologic parameters.**

- A. Hemostasis
- B. Homeostasis
- C. Cell injury
- D. Cell adaptation

12. The most sensitive structure for hypoxia is.....

- A. Skin
- B. Skeletal muscles
- C. Brain
- D. Kidney

13. Skeletal muscles can adapt hypoxia for

- A. 2-5 minutes
- B. 1 hour
- C. 2-6 hours
- D. 6-10 hours

14. Modification of cell structure and functions in response to excess physiologic or pathologic stress to preserve the vitality of cells

- A. Hemostasis
- B. Homeostasis
- C. Cell injury
- D. Cell adaptation

15. Regarding cell adaptation all are true except.....

- A. It is a growth disturbance due to stress
- B. It is irreversible
- C. Too much stress exceeds the cell's adaptive capacity leads to injury
- D. Atrophy is one of its types

11. B

12. C

13. C

14. D

15. B



16. All of the following are types of adaptation except.....:

- A. Hypertrophy
- B. Hyperplasia
- C. Metaplasia
- D. Heterotopia

17. All of the following are examples of physiological atrophy except

- A. Disuse atrophy
- B. Aging
- C. Uterus atrophy after labor.
- D. Thymus atrophy after puberty.

18. Atrophy is due to all of the following except.....?

- A. Decreased blood supply
- B. Increased workload,
- C. Decreased nutrition,
- D. Decreased hormones

19. Which of the following can occur to undescended testis?

- A. Physiological hypertrophy
- B. Neurogenic atrophy
- C. Thermal atrophy
- D. Physiological hyperplasia

20. An increase in the size of mature organ due to increase in cell size.

- A. Hypertrophy
- B. Hyperplasia
- C. Metaplasia
- D. Atrophy

16.D	17.A	18.B	19.C	20.A
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**21. Which of the following is an example of pathological hypertrophy**

- A. Uterine hypertrophy
- B. Muscle hypertrophy in athletes
- C. Left ventricular hypertrophy in systemic hypertension
- D. Aging

22. Which of the following is an example of physiological hyperplasia?

- A. Skin hyperplasia around ulcer
- B. Hyperplasia of female breast in pregnancy and lactation
- C. Liver cells hyperplasia after partial destruction
- D. Endometrial hyperplasia due to increased estrogen levels

23. Hyperplasia occur in?

- A. Bone marrow after hemorrhage
- B. Muscles of athletes
- C. Uterus after labor
- D. Left ventricular in systemic hypertension

24. Mechanism of hypertrophy is.....?

- A. Increased protein degradation
- B. Increased synthesis of structural proteins & organelles
- C. Cell proliferation
- D. Reprogramming of stem cells

25. Change of one type of tissue to another type of same category is.....

- A. Heterotopia
- B. Hypoplasia
- C. Hyperplasia
- D. Metaplasia

21. C

22. B

23. A

24. B

25. D



26. Regarding metaplasia all are true except.....:

- A. It includes reprogramming of stem cells to differentiate along a new pathway to tolerate physical or chemical stress.
- B. Can be physiological or pathological
- C. It is reversible
- D. It is associated with risk of malignancy

27. Barrette's esophagus is an example of.....?

- A. Hyperplasia
- B. Aplasia
- C. Dysplasia
- D. Metaplasia

28. Which of the following can occur in urinary bladder in case of bilharziasis?

- A. Squamous metaplasia
- B. Intestinal metaplasia
- C. Pathological hyperplasia
- D. Pathological hypertrophy

29. Regarding reversible cell injury which of the following is correct?

- A. It is caused by severe injurious agent of long duration
- B. Affects active functioning cells more than supporting stromal cells.
- C. The functional and morphologic changes are irreversible even if the damaging stimulus is removed.
- D. It includes necrosis

30. All of the following are reversible cell injuries except.....?

- A. Cloudy swelling
- B. Hydropic degeneration
- C. Fatty change
- D. Apoptosis

26. B	27. D	28. A	29. B	30. D
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31. Regarding cloudy swelling which of the following is true

- A. Characterized by excess intracellular water accumulation.
- B. Caused by mild injury or injury of short duration
- C. Pathogenesis depends on disruption in the function of Golgi apparatus
- D. The cytoplasm of the cells is pale and shows multiple vacuoles

32. Regarding hydropic degeneration which of the following is true?

- A. Characterized by excess intracellular water accumulation
- B. There is a decrease in the cytoplasmic osmotic pressure
- C. The nucleus is degenerated
- D. The affected organ appears shrunken and hard

33. All of the following gross picture of cloudy swelling are correct except..... ?

- A. The affected organ appears swollen & soft,
- B. The affected organ appears bloodless and pale
- C. Outer surface is smooth with tense capsule and rounded borders
- D. Cut surface appears yellow, bulges outwards and greasy to touch

34. Which of the following can lead to steatosis?

- A. Hypoxia
- B. Alcohol
- C. Carbon tetrachloride
- D. All of the above

35. Regarding fatty change all of the following are true except.....?

- A. Characterized by accumulation of neutral fat in functioning cells
- B. Cells have a signet ring appearance under microscope
- C. Sudan III and oil red O stain fat with black color
- D. For demonstration of fat, frozen sections are used

31. B

32. A

33. D

34. D

35. C



- 1. The type of necrosis that occurs in Peripancreatic tissue in Acute Pancreatitis is?**
 - A. Liquefactive
 - B. Fat
 - C. Coagulative
 - D. Fibrinoid

- 2. Which of the following is a feature of Irreversible Cell Injury.....**
 - A. Glycogen stores are depleted
 - B. Cytoplasmic sodium increases
 - C. Nuclei undergo karyorrhexis
 - D. Intracellular pH diminishes

- 3. Which is most likely to happen following a stroke with loss of blood supply to a lobe of the brain.....**
 - A. Cerebral softening from liquefactive necrosis
 - B. Pale infarction with coagulative necrosis
 - C. Predominantly the loss of glial cells
 - D. Wet gangrene with secondary bacterial infection

- 4. Apoptosis is.....**
 - A. Massive necrosis
 - B. Foreign body phagocytosis
 - C. Lipoprotein synthesis
 - D. Programmed cell death

- 5. Which of the following is most susceptible to liquefaction necrosis following ischemic injury.....**
 - A. Heart
 - B. kidney
 - C. Brain
 - D. Spleen

1. B

2. C

3. A

4. D

5. C



6. Death of group of cells within the living body which occur either directly or follow reversible injury

- A. Degeneration
- B. Necrosis
- C. Apoptosis
- D. Autolysis

7. Which of the following causes necrosis.....

- A. Severe injury of long duration
- B. Tissue homeostasis
- C. Embryogenesis
- D. Viral hepatitis

8. Increased calcium ions in case of necrosis leads to

- A. Decrease ATP with decrease in energy dependent functions
- B. Decrease protein synthesis
- C. Increased lactic acid with decrease in PH
- D. Activation of phospholipases, proteases, endonucleases and ATPases

9. Which of the following is true regarding necrosis

- A. Morphologic changes occurs immediately after injury
- B. Heterolysis occur by cell lysosomal enzymes
- C. Necrotic cells liberate chemicals that irritate the adjacent living tissue leading to an inflammatory reaction
- D. All of the above

10. Regarding pathologic changes in necrosis which of the following is true?

- A. Cell membrane is intact
- B. Cytoplasm is deeply basophilic
- C. Nucleus is normal
- D. None of the above

6. B	7. A	8. D	9. C	10. D
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**11. In pyknosis.....**

- A. Nucleus is shrunken, dense, deeply basophilic
- B. Nucleus is fragmented
- C. Nucleus completely disappear
- D. Nucleus is normal

12. Morphologic changes in necrosis includes.....

- A. Cell membrane damage
- B. Pyknosis
- C. Karyorrhexis
- D. All of the above

13. Commonest type of necrosis is.....

- A. Coagulative necrosis
- B. Liquefactive necrosis
- C. Caseation necrosis
- D. Fibrinoid necrosis

14. Coagulative necrosis occurs due to.....

- A. Predominance of enzymatic digestion
- B. Predominance of protein denaturation
- C. TB infection
- D. Acute pancreatitis

15. Coagulative necrosis occurs in case of acute ischemia of all of the following except.....

- A. Heart,
- B. kidney
- C. Liver
- D. Brain

11.A

12.D

13.A

14.B

15.D



16. Pyogenic abscess is an example of.....:

- A. Coagulative necrosis
- B. Liquefactive necrosis
- C. Caseation necrosis
- D. Fibrinoid necrosis

17. Regarding liquefactive necrosis all of the following are true except.....

- A. There is Predominance of enzymatic digestion
- B. The necrotic area is soft & filled with turbid fluid
- C. General architecture is preserved
- D. Occurs in brain infarction.

18. Which of the following causes caseation necrosis.....?

- A. Acute pancreatitis
- B. Trauma to the adipose tissue of the breast
- C. Acute ischemia of heart
- D. Syphilis infection of the brain

19. Vasculitis leads toin arteries?

- A. Coagulative necrosis
- B. Liquefactive necrosis
- C. Caseation necrosis
- D. Fibrinoid necrosis

20. Granuloma is associated with which type of necrosis.

- A. Coagulative necrosis
- B. Liquefactive necrosis
- C. Caseation necrosis
- D. Fat necrosis

16.B	17.C	18.D	19.D	20.C
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**21. Trauma to the breast can lead to**

- A. Coagulative necrosis
- B. Caseation necrosis
- C. Traumatic fat necrosis
- D. Enzymatic fat necrosis

22. Fate of small area of necrosis includes.....?

- A. Surrounding by fibrous capsule
- B. Dystrophic calcification
- C. Healing by regeneration or by granulation tissue and fibrosis
- D. Gangrene

23. Enzymatic fat necrosis in acute pancreatitis occurs due to escape of.....?

- A. Amylase enzyme
- B. Lipase enzyme
- C. Trypsin enzyme
- D. Pepsin enzyme

24. Fate of necrosis includes.....?

- A. Repair
- B. Secondary infection
- C. Gangrene
- D. All of the above

25. All of the following are hormone dependent apoptosis except.....

- A. Endometrial breakdown during menstrual cycle
- B. Atrophy in parenchymal organs after duct obstruction
- C. Ovarian follicular atresia in menopause
- D. Regression of the lactating breast after weaning

21. C

22. C

23. B

24. D

25. B



26. Which of the following is a pathological cause of apoptosis.....:

- A. Embryogenesis
- B. Tissue homeostasis
- C. Endometrial breakdown during menstrual cycle
- D. Graft rejection

27. Apoptosis occurs in all of the following except.....?

- A. Use of cytotoxic anticancer drugs
- B. Viral hepatitis
- C. Tuberculosis
- D. Tumors

28. Which of the following is a proapoptotic gene?

- A. BAX gene
- B. BCL-2 gene
- C. P53 gene
- D. MCL-1 gene

29. In apoptosis inhibition of.....occurs?

- A. BAX gene
- B. BCL-2 gene
- C. BIK gene
- D. HRK gene

30. Execution phase of apoptosis occurs through activation of.....?

- A. Mitochondria
- B. Ribosomes
- C. Caspase family proteases
- D. Golgi apparatus

26. D

27. C

28. A

29. B

30. C

**31. Which of the following differs necrosis from apoptosis**

- A. Necrosis occurs in a single cell
- B. Necrosis occurs through genetic activation
- C. Necrosis is associated with normal ATP
- D. Necrosis is always pathological

32. Regarding apoptosis which of the following is true?

- A. It occurs in a large group of cells
- B. Associated with swelling of cells
- C. Cell membrane remains intact until separation of apoptotic bodies separate
- D. Associated with inflammatory reaction around

33. Which of the following is true regarding necrosis..... ?

- A. No inflammation occurs around affected area
- B. Cellular membranes rupture
- C. Associated with apoptotic bodies.
- D. Needs genetic activation to occur

34. Regarding apoptotic bodies which of the following is true?

- A. Appears rounded or oval
- B. Contains dense eosinophilic cytoplasm and nuclear fragment.
- C. Rapidly phagocytosed by macrophages.
- D. All of the above

35. Lysosomal digestion of the cell's own components is.....?

- A. Autophagy
- B. Necrosis
- C. Heterolysis
- D. Degeneration

31. D

32. C

33. B

34. D

35. A



1. **Which of the following is associated with intracellular mucoid accumulation?**
 - A. Glycogen storage diseases
 - B. Catarrhal inflammation
 - C. Rhinoscleroma
 - D. Benign prostatic hyperplasia

2. **Which of the following is characterized by presence of signet ring cells.....**
 - A. Intracellular mucoid accumulation
 - B. Intracellular glycogen accumulation
 - C. Hyalinosis
 - D. Amyloidosis

3. **Presence of glassy refractile homogenous structureless transparent material that stains red with eosin.....**
 - A. Intracellular mucoid accumulation
 - B. Intracellular glycogen accumulation
 - C. Hyalinosis
 - D. Amyloidosis

4. **Which of the following is an example of hyaline deposition.....**
 - A. Mucoid carcinoma
 - B. Gaucher's disease
 - C. Alzheimer disease
 - D. Corpora amylacia

5. **Russell's bodies are found in.....**
 - A. Benign prostatic hyperplasia
 - B. Rhinoscleroma
 - C. Gout
 - D. Tuberculosis

1. B

2. A

3. C

4. D

5. B



6. Primary amyloidosis occurs in

- A. Viral infection
- B. Tuberculosis
- C. Multiple myeloma
- D. Alzheimer disease

7. Secondary amyloidosis occurs in

- A. Viral infection
- B. Tuberculosis
- C. Multiple myeloma
- D. Alzheimer disease

8. All of the following is associated with localized amyloidosis except

- A. Alzheimer disease
- B. Endocrine tumors
- C. Senile cardiac amyloidosis
- D. Heredofamilial amyloidosis

9. Nodular deposits of amyloidosis affect

- A. Tongue,
- B. lung,
- C. Urinary bladder
- D. All of the above

10. Amyloid material can be detected microscopically by?

- A. Congo red stain
- B. Thioflavin stain
- C. PAS stain
- D. None of the above

6. C	7. B	8. D	9. D	10.A
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**11. Tissue with amyloidosis appears blue with.....**

- A. Congo red stain
- B. Iodin
- C. Sulphuric acid + iodine
- D. Hx & E stain

12. Tissue with amyloidosis appearswith iodine

- A. Brown
- B. Blue
- C. Salmon pink
- D. Apple green

13. Biopsy of tissue with amyloidosis appears..... by polarized light

- A. Brown
- B. Blue
- C. Salmon pink
- D. Apple green

14. Normal level of sodium urate in male is.....

- A. 2 – 6 mg
- B. 3 – 7 mg
- C. 2- 5 mg
- D. 10 mg

15. All of the following is true regarding primary gout except.....

- A. It run in families
- B. It occurs mainly at 40 years of age
- C. It affects females more than males
- D. It is due to increased purine breakdown or decreased clearance.

11.C

12.A

13.D

14.B

15.C



16. Which of the following causes secondary gout.....:

- A. Polycythaemia rubra vera
- B. Myocardial infarction
- C. Anemia
- D. Tuberculosis

17. Gout results in deposition ofin the tissues

- A. Amyliod protein
- B. Tau protein
- C. Calcium salts
- D. Sodium urate

18. Most common joint affected by gout is.....?

- A. Ankle joint
- B. Knee joint
- C. Metatarsophalangeal joint of big toe.
- D. Wrist joint

19. Ca salts can be detected microscopically by?

- A. Congo red stain
- B. Iodin
- C. Hematoxylin
- D. Eosin

20. Which of the following is true regarding dystrophic calcification.

- A. It occurs in viable tissue
- B. It is associated with normal blood calcium level.
- C. It means calcium salts deposition in bone & teeth.
- D. Calcium level is elevated

16.A	17.D	18.C	19.C	20.B
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21. Dystrophic calcification occurs with all of the following except.....

- A. Fat necrosis
- B. Old scar.
- C. Fibrosed valve.
- D. Hyperparathyroidism

22. All of the following are causes of metastatic calcification except

- A. Hypervitaminosis D
- B. Hypothyroidism
- C. Milk-alkali syndrome
- D. Prolonged immobilization in bed

23. Metastatic calcification

- A. Occurs in viable tissue
- B. Associated with hypercalcemia
- C. Can be caused by Cushing syndrome
- D. All of the above

24. Metastatic calcification can occur in all of the following except.....?

- A. Renal tubular epithelium
- B. Mucosa of the stomach
- C. Wall of chronic abscess
- D. Arteries

25. Stone formation can occur in the ducts of.....

- A. Biliary tract
- B. Urinary tract
- C. Salivary gland
- D. All of the above

21. D

22. B

23. D

24. C

25. D



26. Which of the following causes localized melanin hyperpigmentation

- A. Addison's disease
- B. Chloasma
- C. Vitiligo
- D. Albinism

27. Which of the following causes generalized melanin hyperpigmentation

- A. Nevus
- B. Melanoma
- C. Addison's disease
- D. Leucoderma

28. Which of the following causes generalized melanin hypopigmentation?

- A. Albinism
- B. Prolonged exposure to sunlight
- C. Leucoderma
- D. Vitiligo

29. Leucoderma causes?

- A. Generalized melanin hypopigmentation
- B. Localized melanin hypopigmentation
- C. Generalized melanin hyperpigmentation
- D. Localized melanin hyperpigmentation

30. Which of the following is an exogenous pathological pigmentation

- A. Lipofuscin pigmentation
- B. Hemosiderosis
- C. Anthracosis
- D. Melanin hyperpigmentation

26. B	27. C	28. A	29. B	30. C
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31. Which of the following causes exogenous pathological pigmentation by inoculation

- A. Anthracosis
- B. Chronic lead poisoning
- C. Tattooing
- D. Hemosiderosis

32. All of the following causes intracellular accumulation of Lipofuscin pigment except.....?

- A. Old age.
- B. Cancer cachexia
- C. Endocrinal disturbances
- D. Plumbism

33. Primary generalized hemosiderosis occurs due to..... ?

- A. Inborn error of metabolism
- B. Repeated blood transfusions.
- C. Hemolytic anemias.
- D. localized hemorrhage

34. Hemosiderin appears dark blue by.....?

- A. H&E
- B. Prussian blue
- C. Toluidine blue
- D. Iodine

35. Hemolytic anemias. Can cause.....?

- A. Localized hemosiderosis
- B. Intracellular accumulation of Lipofuscin pigment
- C. Secondary generalized hemosiderosis
- D. Melanin hyperpigmentation

36. Hemosiderin appears as brown pigment by?

- A. H&E
- B. Toluidine blue
- C. Iodine
- D. PAS stain

31. C

32. D

33. A

34. B

35. C

36. A



1. Which of the following is correct regarding acute inflammation?

- A. It is of gradual onset
- B. Its duration is longer than chronic inflammation
- C. It is caused by strong irritant as Staphylococci
- D. It is associated with repair

2. Aim of inflammation is to.....

- A. Remove or localize the attacking agent
- B. Prepare tissue for repair
- C. Decrease body hypersensitivity
- D. A & B

3. Which of the following can cause inflammation.....

- A. Infections
- B. Physical agents and trauma
- C. Foreign bodies
- D. All of the above

4. All of the following are steps of inflammatory response except.....

- A. Recognition of the injurious agent
- B. Recruitment of platelets
- C. Removal of the agent
- D. Regulation of the response

5. Regarding vascular changes in acute inflammation which of the following is correct.....

- A. Permanent vasoconstriction of arterioles, capillaries and post capillary
- B. Decreased vascular permeability
- C. Leakage of proteinaceous fluid which causes inflammatory edema.
- D. Decreased blood viscosity

1. C

2. D

3. D

4. B

5. C



6. Local redness and hotness of the affected area in acute inflammation occurs due to.....:

- A. Endothelial swelling with widening of intra endothelial gaps
- B. Major endothelial damage involving arterioles, capillaries and venules
- C. Permanent vasodilatation of arterioles, capillaries and post capillary venules.
- D. Increased concentration of blood elements

7. Inflammatory edema in acute inflammation occurs due to.....

- A. Endothelial swelling with widening of intra endothelial gaps
- B. Major endothelial damage involving arterioles, capillaries and venules
- C. Permanent vasodilatation of arterioles, capillaries and post capillary venules.
- D. Increased concentration of blood elements
- E. A & B

8. Regarding tissue exudate which of the following is correct

- A. It is due to increased hydrostatic pressure
- B. Low protein content < 4 gm
- C. Clots on standing
- D. Does not contain inflammatory cells

9. Regarding transudates all of the following is correct except

- A. It can occur in organ failure
- B. It is turbid
- C. Low specific gravity < 1018
- D. It does not contain inflammatory cells.

10. Regarding exudates all of the following is correct except?

- A. It is due to increased vascular permeability
- B. Occurs late in inflammation
- C. Contains 4-8 gm protein
- D. Rich in protein especially elastin

6. C	7. E	8. C	9. B	10. D
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11. The first cells to emigrate in acute inflammation are.....

- A. Neutrophils
- B. Macrophage
- C. Basophils
- D. Lymphocytes

12. Regarding cellular changes in acute inflammation which of the following is correct.....

- A. There is active movement of the leukocyte from interstitial tissue to the vessel lumen
- B. Chemotaxis is migration of leucocytes along a chemical gradient of chemotactic agents
- C. Phagocytosis occurs mainly by B-lymphocytes
- D. All of the above

13.is the movement of leukocytes across the endothelium.

- A. Margination
- B. Rolling
- C. Adhesion
- D. Transmigration

14. All of the following are emigration steps except

- A. Margination
- B. Rolling
- C. Adhesion
- D. Opsonization

15. Integrins mediate which of the following step of emigration

- A. Margination
- B. Rolling
- C. Adhesion
- D. Transmigration

11.A

12.B

13.D

14.D

15.C



16. Rolling movement of leukocytes along the endothelial surface is mediated by the action of:

- A. Interleukin 6
- B. E selectins
- C. Integrins
- D. Ristocetin

17.is coating of particulate material by substances that immobilize the particles to the surface of the phagocytes in the tissues

- A. Opsonization
- B. Adhesion
- C. Engulfment
- D. Attachment

18. The most important opsonins are.....?

- A. IgG & C3a
- B. IgM & C3b
- C. IgG & C3b
- D. IgM & C3a

19. All of the following are chemical mediators in acute inflammation except.....?

- A. Histamine
- B. Bradykinin
- C. C3a
- D. Dopamine

20. Which of the following mediates pain in acute inflammation.

- A. Histamine
- B. Bradykinin
- C. C5a
- D. Leukotrienes C4

16.B

17.A

18.C

19.D

20.B



21. All of the following are mediators for increased vascular permeability in acute inflammation except.....

- A. Histamine,
- B. C3a
- C. Leukotrienes C4
- D. Prostaglandins

22. TNF mediates which of the following in acute inflammation.....?

- A. Vasodilatation
- B. Chemotaxis
- C. Fever
- D. Pain

23. Leukotrienes B4 mediates which of the following in acute inflammation?

- A. Vasodilatation
- B. Chemotaxis
- C. Fever
- D. Pain

24. Cardinal Signs of acute inflammation include all of the following except.....?

- A. Redness
- B. Swelling
- C. Nausea
- D. Loss of function

25. Microscopic picture of acute inflammation includes.....

- A. Dilatation of arterioles, venules and capillaries.
- B. Oedema
- C. Acute inflammatory cells
- D. All of the above

21. D

22. C

23. B

24. C

25. D

**26. Fever in acute inflammation is caused by.....:**

- A. Pyrogens
- B. Prostaglandins
- C. Bradykinin
- D. Histamine

27. Which of the following is a systemic effect of acute inflammation.....?

- A. Alkalosis
- B. Erythrocytosis
- C. Thrombocytosis
- D. Leucocytosis

28. Leucocytosis in acute inflammation is caused by.....?

- A. Histamine & prostaglandins
- B. IL-1 & TNF
- C. C3a & C5a
- D. Prostaglandins & bradykinin

29. Which of the following is considered severe acute inflammation with pus formation?

- A. Serous inflammation
- B. Catarrhal inflammation
- C. Boil
- D. Pseudomembranous inflammation

30. Which of the following can cause suppurative inflammation.....?

- A. Staph. Aureus
- B. Common cold
- C. Diphtheria
- D. Vascular damage

26.A

27.D

28.B

29.C

30.A



31. All of the following is localized suppurative inflammation except.....

- A. Abscess
- B. Boil
- C. Carbuncle
- D. Cellulitis

32.is a small abscess related to hair follicles, sweat or sebaceous glands?

- A. Necrotizing inflammation
- B. Fruncle
- C. Carbuncle
- D. Cellulitis

33. Regarding abscess which of the following is correct..... ?

- A. Central zone contains pus
- B. Midzone contains necrotic tissue and dead neutrophils.
- C. Healing occurs by granulation tissue if abscess is not evacuated
- D. Pyogenic membrane is present at peripheral zone

34. Fate of abscess includes all of the following except.....?

- A. Change to chronic abscess.
- B. Blood or lymphatic spread.
- C. Malignant transformation
- D. Healing by granulation tissue.

35. Regarding carbuncle all of the following is true except.....?

- A. It consists of multiple communicating suppurative foci opening to surface by one sinus
- B. It is common in diabetic patients
- C. It is a localized suppurative inflammation
- D. Suppurative foci are present in the subcutaneous tissue

31. D

32. B

33. D

34. C

35. A



36. Regarding cellulitis all of the following is true except.....:

- A. It is an acute diffuse suppurative inflammation
- B. It is due to staphylococcal infection
- C. It occurs in loose connective tissue as orbit and wall of the appendix
- D. It includes secretion of enzymes that facilitate spread of infection as Fibrinolysin and Leucocidin.

37. Common cold produces which type of acute inflammation.....?

- A. Serous inflammation
- B. Allergic inflammation
- C. Catarrhal inflammation
- D. Pseudomembranous inflammation

38. Regarding serofibrinous inflammation which of the following is correct.....?

- A. Wet type occurs if excess fibrin than serous fluid.
- B. Dry type occurs if excess serous fluid than fibrin.
- C. It is a type of diffuse suppurative inflammation
- D. It occurs in serous sacs and lung alveoli in lobar pneumonia.

39. Pseudomembranous inflammation is caused by all of the following except.....?

- A. Diphtheria
- B. Shigella
- C. Clostridium difficile.
- D. Streptococci

40. Which type of inflammation is associated with burns.....?

- A. Serous inflammation
- B. Hemorrhagic inflammation
- C. Necrotizing inflammation
- D. Allergic inflammation

41. Fate of acute inflammation includes all of the following except.....?

- A. Resolution
- B. Abscess formation.
- C. Carcinoma formation
- D. Scar formation.

36.B

37.C

38.D

39.D

40.A

41.C



1. Which of the following is correct regarding chronic inflammation

- A. It is of short duration
- B. It must follow acute inflammation
- C. Bilharziasis causes chronic nonspecific inflammation
- D. It is associated with repair

2. Which of the following can cause chronic inflammation

- A. Rheumatoid arthritis
- B. Inflammatory bowel disease
- C. Silicosis
- D. All of the above

3. Regarding granuloma which of the following is correct.....

- A. Etiological factor cannot be identified from the inflammatory reaction.
- B. Can be caused by TB
- C. It follows acute inflammation
- D. All of the above

4. All of the following are chronic inflammatory cells except.....

- A. B lymphocytes
- B. T lymphocytes
- C. Neutrophils
- D. Plasma cells

5. Which of the following are particularly prominent in allergic reactions and parasitic infestations.

- A. Eosinophils
- B. Macrophages
- C. Dendritic cells
- D. Neutrophils

1. D

2. D

3. B

4. C

5. A



6. Chief function of fibroblasts in chronic inflammation is to.....:

- A. Produce components of the ECM.
- B. Phagocytose and destruct debris & bacteria
- C. Process and present antigen to immune system.
- D. Produce antibodies.

7. Regarding dendritic cells which of the following is correct.....:

- A. They are involved in control & some cytotoxic functions.
- B. They may be present during chronic inflammation, if there is ongoing infection and tissue damage.
- C. They phagocytose antigens and migrate to lymph nodes, where they present those antigens.
- D. They produce cytokines & chemokines that regulates behavior of inflammatory cells

8. Chronic inflammation is associated with all of the following except

- A. Fever
- B. Anemia.
- C. Leucocytosis
- D. Low ESR

9. Chronic non-specific inflammation is characterized by all of the following except

- A. Diffuse infiltration of mononuclear cells
- B. Angiogenesis and fibrosis
- C. End arteritis obliterans
- D. Marked edema

10. Which of the following differentiates chronic from acute inflammation ?

- A. It is of sudden onset
- B. It is proliferative
- C. It is followed by repair
- D. It is caused by severe irritant

6. A

7. C

8. D

9. D

10. B



11. Chronic inflammation is characterized by all of the following except.....

- A. Gradual onset and long duration
- B. Mediated mainly by polymorphs & macrophages
- C. It is associated with repair
- D. End arteritis obliterans

12. Granuloma is type.....hypersensitivity reaction

- A. 1
- B. 2
- C. 3
- D. 4

13. Macrophage activation in granuloma occurs by all of the following except.....

- A. TNF
- B. IL7
- C. Bradykinin
- D. Fibronectin.

14. Multinucleated giant cells originate by fusion of.....

- A. Lymphocytes
- B. Macrophages
- C. Fibroblasts
- D. Neutrophils

15. The granuloma is formed of all of the following cells except.....

- A. Macrophages,
- B. Epithelioid Cells,
- C. Giant Cells,
- D. Neutrophils

11.B

12.D

13.C

14.B

15.D



16. Which of the following is true regarding giant cells in inflammation

- A. They are most commonly seen in acute suppurative inflammation
- B. They have weaker phagocytic power than macrophages.
- C. They are more commonly seen in granuloma than in chronic non specific inflammation
- D. All of the above

17. Langhans giant cells are characteristic for.....

- A. Tuberculosis
- B. Bilharziasis
- C. Rheumatic fever
- D. Actinomycosis

18.is a cause of non-infective granuloma?

- A. Lymphogranuloma inguinal
- B. Sarcoidosis
- C. Histoplasma
- D. Candida

19. Regarding granuloma all of the following is correct except.....?

- A. It is chronic specific inflammation
- B. It grossly appears as a tumor-like mass
- C. It involves macrophage activation and accumulation
- D. It is the same with each irritant

20. Which of the following causes suppurative granuloma.

- A. Lymphogranuloma inguinal
- B. Actinomycosis
- C. Histoplasma
- D. Tuberculosis

21. Which of the following causes allergic granuloma.

- A. Sarcoidosis
- B. Candida
- C. Rheumatic fever
- D. Tuberculosis

16.C

17.A

18.B

19.D

20.B

21.C



1. **.....is the replacement of damaged tissue by healthy one of the same kind?**
 - A. Regeneration
 - B. Fibrosis
 - C. Resolution
 - D. Organization

2. **Which of the following facilitates wound healing**
 - A. Exposure to ionizing radiation
 - B. Exposure to UV light
 - C. Poor blood supply to the wound site
 - D. Wound infection

3. **Which of the following hormones inhibits wound healing to a great extent**
 - A. Corticosteroids
 - B. ADH
 - C. Growth hormone
 - D. Estrogen

4. **The cells which have the capacity to multiply throughout their life**
 - A. Stable cells
 - B. Labile cells
 - C. Permanent or fixed cells
 - D. None of the above

5. **Wounds which are clean and uninfected, surgically incised with edge of wounds approximated by sutures, heal by.**
 - A. Primary intention
 - B. Secondary intention
 - C. Cicatrization
 - D. Organization

1. A

2. B

3. A

4. B

5. A



6. Which of the following is needed for collagen synthesis

- A. Vitamin C
- B. UV light
- C. Vitamin B
- D. Magnesium

7. Which of the following is an example of permanent cells.....

- A. Osteoblasts
- B. Cartilage cells
- C. Nerve cells
- D. Cells of the epidermis

8. All of the following are labile cells except

- A. Epidermis of the skin,
- B. Surface epithelium of gastro-intestinal tract
- C. Hemopoietic cells of the bone marrow
- D. Endothelium

9.cells have left the cell cycle & cannot undergo mitotic division in postnatal life

- A. Labile
- B. Stable
- C. Permanent
- D. None of the above

10. Which of the following cells are capable of division when activated or after injury?

- A. Hepatocytes,
- B. Renal tubular cells,
- C. Glandular cells,
- D. All of the above

6. A	7. C	8. D	9. C	10. D
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11. Which of the following cells cannot regenerate after injury

- A. Connective tissue cells
- B. Hemopoietic cells of the bone marrow
- C. Cardiac cells
- D. Liver cells

12. All of the following are stable cells except

- A. Hepatocytes,
- B. Renal tubular cells,
- C. Smooth muscle cells
- D. Skin epidermal cells

13. Regeneration requires.....

- A. Good blood supply
- B. Intact supporting framework
- C. Presence of growth factors
- D. Presence of immune cells

14. In repair by fibrosis, the damaged tissue is replaced by

- A. Healthy one of the same kind
- B. Caseous tissue
- C. Granulation tissue
- D. None of the above

15. First step in repair by fibrosis is.....

- A. Removal of debris by active macrophage
- B. Formation of granulation tissue
- C. Formation of Fibrous tissue
- D. Remodeling

11.C

12.D

13.B

14.C

15.A



16. In repair by fibrosis, activated macrophages produce

- A. Transforming growth factor B
- B. Fibroblast growth factor
- C. Vascular endothelial growth factor
- D. All of the above

17. All of the following are characters of granulation tissue by N/E except.....

- A. Red,
- B. Easily Bleeding
- C. Painful
- D. Resist Infection

18. By M/E granulation tissue consists of all of the following except.....?

- A. Capillaries
- B. Fibroblasts
- C. Inflammatory cells
- D. Platelets

19. Which of the following vitamins is important for tissue repair.....?

- A. Vitamin A
- B. Vitamin B
- C. Vitamin C
- D. Vitamin E

20. Scar is.....

- A. hypo vascular strong fibrous tissue.
- B. hyper vascular strong fibrous tissue.
- C. hypo vascular weak fibrous tissue.
- D. hyper vascular weak fibrous tissue.

16.D

17.C

18.D

19.C

20.A



21. Healing with primary intension occurs if all of the following are present EXCEPT.....

- A. There is minimal tissue loss
- B. The wound is clean
- C. The two edges is well opposed
- D. The wound is gaping

22. Excess corticosteroids is one of the systemic factors for delayed wound healing due to

- A. Interference with the function of PNL and macrophages
- B. Decreasing blood supply
- C. Enhancing collagen synthesis
- D. All of the above

23. All of the following are factors for delayed wound healing EXCEPT

- A. Advanced age
- B. Protein malnutrition
- C. Wounds over non-movable areas
- D. Diabetes mellitus

24. All of the following is correct regarding healing by secondary intention except

- A. Slow healing
- B. Minimal complications
- C. Large irregular scar
- D. Wound is infected with tissue debris

25. All of the following is correct regarding healing by primary intention except

- A. Sterile wound
- B. Thin linear scar
- C. Rapid healing
- D. Excess tissue loss

21. D

22. A

23. C

24. B

25. D

**26. First step in bone fracture healing is.....**

- A. Callus formation
- B. Remodeling
- C. Hematoma formation
- D. Macrophages and osteoclasts clean the area

27. In bone fracture healing, final remodelling is completed in about after regaining of bone function

- A. 1 year
- B. 1 month
- C. 2 years
- D. 2 months

28. Complications of wound healing include all of the following except

- A. Ulcer
- B. Sinus
- C. Keloids
- D. Wart

29. Provisional callus is

- A. Calcified osteoid matrix
- B. Calcified keloid
- C. Organized hematoma
- D. None of the above

30. Excessive Formation of granulation tissue leads to.....

- A. Wound dehiscence
- B. Ulcer
- C. Keloid
- D. Weak scar

26. C

27. A

28. D

29. A

30. C

**31. Regarding proud flesh which of the following is correct.....**

- A. It is due to excessive formation of granulation tissue above the surface of the wound.
- B. It prevents epithelialization of the surface.
- C. Surgical removal or cauterization is required for complete healing of the wound
- D. All of the above

32. Scar tissue is primarily composed of

- A. Type I collagen
- B. Type II collagen
- C. Type III collagen
- D. Type IV collagen

33.is a blind ended tract opening on the surface

- A. Ulcer
- B. Sinus
- C. Keloid
- D. Fistula

34.is a tract joining two hollow organs.

- A. Ulcer
- B. Sinus
- C. Keloid
- D. Fistula

35. Defective formation of granulation tissue leads to all of the following except.....

- A. Wound dehiscence
- B. Ulcer
- C. Scar hypertrophy
- D. Fistula

36. Complications of fibrosis include all of the following except.....

- A. Neoplasia
- B. Contracture
- C. Obstruction of hollow organ
- D. Deformity
- E. Epilepsy

31. D

32. C

33. B

34. D

35. C

36. A



1. Which of the following can be transmitted through inhalation?

- A. Typhoid fever
- B. TB
- C. AIDS,
- D. Viral hepatitis

2. Typhoid fever can be transmitted through.....

- A. Skin or mucous membrane
- B. Injection and blood transfusion
- C. Ingestion of food or water
- D. Sexual transmission

3. All of the following can cause endogenous infection except.....

- A. Strept viridans
- B. Pneumococci
- C. E coli
- D. Syphilis

4. Which of the following has neural spread inside the body

- A. Rabies virus
- B. HIV virus
- C. TB
- D. Staph aureus

5. Local spread is the spread of infection

- A. Through natural passages
- B. To draining lymph nodes
- C. To surrounding structures
- D. Along nerves

1. B	2. C	3. D	4. A	5. C
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6.is passive circulation of small numbers of bacteria without growth in the blood stream?
- A. Bacteremia
 - B. Toxemia
 - C. Septicemia
 - D. Pyemia
7. Effects of bacteremia vary according to.....
- A. Virulence of bacteria
 - B. The dose of bacteria
 - C. Resistance of the host
 - D. All of the above
8. Which of the following can be the effect of bacteremia with small dose of bacteria and high host resistance.....
- A. Isolated organ lesion
 - B. No effect
 - C. Lesion of the already diseased tissues
 - D. Multiple organ failure
9. Which of the following can cause subacute bacterial endocarditis of diseased heart?
- A. Streptococcus viridians
 - B. Staphylococcus aureus
 - C. E.coli
 - D. Pneumococci
10. In case of bacteraemia, isolated organ lesion can occur in case of
- A. Small dose of bacteria with high host resistance,
 - B. Moderate dose of bacteria
 - C. Large doses of bacteria
 - D. None of the above

6. A

7. D

8. B

9. A

10. B



11.is the circulation of septic emboli with their localization in the organs

- A. Viremia
- B. Toxemia
- C. Septicemia
- D. Pyemia

12. Which of the following can cause pyemia

- A. Streptococcus viridians
- B. Staphylococcus aureus
- C. E.coli
- D. Pneumococci

13. Arterial pyemia can cause pyemic abscesses in all of the following except.....

- A. Brain
- B. Liver
- C. Lung
- D. Kidney

14. All of the following are sources of venous pyemia except.....

- A. Acute bacterial endocarditis
- B. Acute hematogenous osteomyelitis
- C. Puerperal sepsis
- D. Suppurative otitis media

15. Suppurative lung diseases can cause which of the following.....

- A. Portal pyemia
- B. Arterial pyemia
- C. Venous pyemia
- D. None of the above

11.D

12.B

13.C

14.A

15.B



16. Venous pyemia can cause pyemic abscesses in which of the following

- A. Spleen
- B. Skin
- C. Intestine
- D. Lung

17. Portal pyemia can cause pyemic abscesses in which of the following

- A. Spleen
- B. Liver
- C. Kidney
- D. Brain

18. Infected piles can cause which of the following.....?

- A. Portal pyemia
- B. Arterial pyemia
- C. Venous pyemia
- D. None of the above

19. Pyemia.....?

- A. Resolve spontaneously
- B. Can be caused by varicella zoster virus
- C. Is rapidly fatal and can be complicated by septicemia
- D. None of the above

20. Regarding pyemic abscesses which of the following is correct.....

- A. They are multiple small abscesses nearly of the same size
- B. They are related to small blood vessels entering the sites where they are lodged
- C. Each is surrounded by zone of congestion
- D. All of the above

16.D

17.B

18.A

19.C

20.D



21.is the circulation of bacterial toxins in the blood with production of clinical and pathological manifestation?

- A. Bacteremia
- B. Toxemia
- C. Septicemia
- D. Pyemia

22. Which of the following causes chronic toxemia.....

- A. Diphtheria,
- B. Cholera.
- C. T.B.
- D. E.coli

23. Which of the following can produce large doses of toxins that reach blood within short time.....

- A. Diphtheria,
- B. Syphilis.
- C. T.B.
- D. E.coli

24. Pathological effects of toxemia include.....

- A. Inflammation.
- B. Degeneration
- C. Anemia
- D. All of the above

25. Chronic toxemia can lead to.....

- A. Cloudy swelling in the heart
- B. Fatty changes in liver
- C. Amyloidosis
- D. None of the above

21. B

22. C

23. A

24. D

25. C



26. Clinical effects of toxemia include all of the following except.....

- A. Fever
- B. Rigors
- C. Weight gain
- D. Tachycardia

27.is the circulation & multiplication of large number of virulent microorganisms with their toxins in the blood function

- A. Bacteremia
- B. Septicemia
- C. Toxemia
- D. Pyemia

28. Which of the following causes puerperal sepsis and may lead to septicemia

- A. Strept. Hemolyticus
- B. Staph. aureus
- C. Meningococci
- D. Gonococci

29. Which of the following causes acute osteomyelitis, and may lead to septicemia

- A. Strept. Hemolyticus
- B. Staph. aureus
- C. Meningococci
- D. Gonococci

30. Effects of septicemia include all of the following except.....

- A. Degeneration of organs & muscles
- B. Hemolysis
- C. Necrosis in the wall of blood vessels
- D. Thrombocytopenia

26. C	27. B	28. A	29. B	30. D
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31. Regarding septicemia which of the following is correct.....

- A. Can lead to focal necrosis liver, heart or suprarenal gland
- B. It is a benign condition that resolves spontaneously
- C. By gross examination septicemic spleen is hard with hemorrhagic and necrotic areas
- D. CBC is normal

32. Patient with septicemia may show

- A. Fever with chills or shivering
- B. Confusion or disorientation
- C. Hyperemic skin with hemorrhagic spots
- D. All of the above

33. Death can occur in case of septicemia when patient develops.....

- A. Mucous membrane bleeding
- B. Septic shock
- C. Rapid heart rate
- D. Acute bacterial endocarditis

34. Regarding bacteremia all of the following is correct except.....

- A. Toxins are not produced in blood
- B. It can resolve without treatment
- C. It is more dangerous than septicemia
- D. It usually causes no symptoms or may produce mild fever

35. Regarding septicemia all of the following is correct except

- A. It is the presence and multiplication of bacteria in the blood
- B. It can arise from infection all over the body
- C. It is a potentially life-threatening condition
- D. It is usually asymptomatic

31.A

32.D

33.B

34.C

35.D



1. Neoplasia is a /an.....new growth?

- A. Normal
- B. Autonomous
- C. Dependent
- D. None of the above

2. Neoplasia is an abnormal new growth characterized by

- A. Coordinated with the growth of normal tissue.
- B. Controlled by the normal growth control
- C. Competes with normal cells for metabolic needs
- D. All of the above

3. General features of neoplasia include.....

- A. It can originate from any cell
- B. It is classified according to cell of origin and behavior
- C. It is composed of cells and stroma
- D. All of the above

4. In neoplasia there are mutation of genes that regulate

- A. Cell growth
- B. Apoptosis
- C. DNA repair
- D. All of the above

5. Regarding structure of neoplasm which of the following is correct

- A. Supportive stroma determine tumor type and behavior.
- B. Parenchyma consists of connective tissue and blood vessels
- C. Supportive stroma is derived from host
- D. Neoplastic cells start as polyclonal

1. B	2. C	3. D	4. D	5. C
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6. Which of the following is derived from one germ cell layer?

- A. Teratoma
- B. Fibroadenoma of breast
- C. Hepatoma
- D. Basal cell carcinoma

7. Which of the following is derived from more than one germ cell layer

- A. Teratoma
- B. Fibroadenoma of breast
- C. Hepatoma
- D. Basal cell carcinoma

8. Benign neoplasm of the fat tissue is called.....

- A. Chondroma
- B. Liposarcoma
- C. Lipoma
- D. Leiomyoma

9. Squamous cell carcinoma is.....?

- A. A malignant neoplasm of surface epithelium
- B. A malignant neoplasm of glandular epithelium
- C. A malignant neoplasm of cartilage
- D. A benign neoplasm of smooth muscles

10. Malignant neoplasm of glandular epithelium is called

- A. Squamous cell papilloma
- B. Transitional carcinoma
- C. Adenocarcinoma
- D. Adenoma

6. B	7. A	8. C	9. A	10. C
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**11. Malignant neoplasm of skeletal muscles is called**

- A. Liposarcoma
- B. Chondrosarcoma
- C. Leiomyosarcoma
- D. Rhabdomyosarcoma

12. Leiomyoma is.....

- A. A benign neoplasm of smooth muscles
- B. A benign neoplasm of cartilages
- C. A benign neoplasm of glandular epithelium
- D. A malignant neoplasm of cartilage

13. Which of the following is a benign neoplasm.....

- A. Melanoma,
- B. Adenoma
- C. Lymphoma
- D. Glioma

14. All of the following are malignant neoplasms except.....

- A. Lymphoma,
- B. Seminoma,
- C. Chondroma
- D. Hepatoma.

15. All of the following are non neoplastic lesions except.....

- A. Hematoma,
- B. Granuloma,
- C. Hamartoma
- D. Leukemia

11.D

12.A

13.B

14.C

15.D



16. Concerning benign tumor, one statement is true

- A. It grows rapidly
- B. It grows by expansion and infiltration of the surrounding normal tissue
- C. It originates from normal cells
- D. All of the above

17. Regarding gross features of malignant tumors which of the following is correct

- A. They are always small and single
- B. They are non-capsulated
- C. Cut section is uniform with no hemorrhage or necrosis.
- D. Their shape is globular or ovoid inside solid organ

18. Which of the following benign tumors is non-capsulated

- A. Lipoma
- B. Chondroma
- C. Adenoma
- D. Leiomyoma

19. All of the following tumors are non-capsulated except.....?

- A. Rhabdomyoma
- B. Osteoma
- C. Transitional papilloma
- D. Adenocarcinoma

20. Malignant tumors arising from surface epithelia can appear as.....

- A. Polypoid fungating mass
- B. Malignant ulcer
- C. Annular lesion
- D. All of the above

16.C

17.B

18.D

19.A

20.D



21. Regarding microscopic features of benign tumors which of the following is correct

- A. Hemorrhage and necrosis are common
- B. There is cellular anaplasia
- C. Cells are mature and resemble mother cells with minimal mitoses.
- D. They are poorly differentiated

22. Regarding malignant tumors which of the following is correct.....

- A. They don't spread.
- B. They don't recur if well excised.
- C. 2ry changes don't occur
- D. Stroma is poor, with prominent vascularity

23. Benign tumors can endanger patient life if.....

- A. They are located in vital organ.
- B. They are located in tubular organ
- C. They produce hormones.
- D. All of the above

24. Benign tumors are characterized by all of the following except.....

- A. Minimal mitoses.
- B. Hyperchromatism
- C. Few well-formed blood vessels.
- D. Minimal secondary changes.

25. Pleomorphism means.....

- A. Variability in size & shape of cells and nuclei
- B. Increased D.N.A. inside the nucleus for cell division
- C. Increased mitotic figures
- D. Loss of polarity

21. C

22. D

23. D

24. B

25. A



26. Malignant neoplasms are characterized by all of the following except

- A. Pleomorphism
- B. Hyperchromatism
- C. Normal N/C ratio
- D. Loss of polarity

27. N/C ratio in malignant neoplasms is

- A. 1/1
- B. 1/2
- C. 1/4
- D. 1/8

28. is increased D.N.A. inside the nucleus for cell division

- A. Pleomorphism
- B. Anaplasia
- C. Hyperchromatism
- D. None of the above

29. is the extent to which parenchymal cells of the tumor resemble comparable normal cells

- A. Tumor staging
- B. Tumor differentiation
- C. Tumor spread
- D. None of the above

30. Benign tumors are

- A. Well differentiated
- B. Moderately differentiated
- C. Poorly differentiated
- D. Undifferentiated

26. C	27. B	28. C	29. B	30. A
-------	-------	-------	-------	-------

**31. Anaplastic tumors are.....**

- A. Well differentiated
- B. Moderately differentiated
- C. Poorly differentiated
- D. Undifferentiated

32. Poorly differentiated tumors are grade.....

- A. I
- B. II
- C. III
- D. IV

33. The more the growth rate

- A. The less the differentiation
- B. The better the behavior
- C. All of the above
- D. None of the above

34. Complete loss of tumor differentiation is.....

- A. Dysplasia
- B. Anaplasia
- C. Metaplasia
- D. Hyperplasia

35. The most reliable feature that differentiates malignant from benign tumors is

- A. Absence of capsule
- B. Recurrence of malignant tumors
- C. Spread of malignant tumors
- D. Presence of 2ry changes

31.D

32.C

33.A

34.B

35.C



36. The major cause of morbidity and mortality in malignant tumors is.....

- A. Recurrence of the tumor
- B. Spread of the tumor
- C. Size of the tumor
- D. None of the above

37. Transcoelomic spread of malignant tumors occurs through.....

- A. Lymphatic
- B. Blood
- C. Serous sacs
- D. CSF

38. Common sites of blood spread of malignant tumors include.....

- A. Liver,
- B. Lung,
- C. Brain,
- D. All of the above

39. Regarding sarcoma which of the following is correct.....

- A. It spreads early by blood
- B. It is more common than carcinoma
- C. It is a malignant tumor of the surface epithelium
- D. It tends to occur in old age

40. Regarding carcinoma which of the following is correct is

- A. It is a malignant tumor of mesenchymal tissues
- B. It tends to infiltrate more than expand
- C. It grows more rapidly than sarcoma
- D. It spreads late by lymphatics

36. B	37. C	38. D	39. D	40. B
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41. Regarding sarcoma which of the following is correct

- A. It appears as an irregular fixed mass
- B. It has scanty stroma
- C. No stroma is present between individual cells
- D. All of the above

42. Which of the following is a locally malignant tumor.....

- A. Squamous cell carcinoma
- B. Osteosarcoma
- C. Basal cell carcinoma
- D. Liposarcoma

43. Giant cell tumor of bone is characterized by which of the following.....

- A. Capsulated,
- B. Benign tumor
- C. Grows rapidly
- D. Infiltrates locally but don't send distant metastases

44. Locally malignant neoplasms are characterized by all of the following except...

- A. They never turn malignant
- B. They have infiltrative growth pattern
- C. They recur after incomplete excision
- D. They grow slowly

45. Staging of the tumor reflects.....

- A. Degree of differentiation of a tumor
- B. Degree of spread of a tumor
- C. Mode of growth of the tumor
- D. None of the above

41. B

42. C

43. D

44. A

45. B



1. Which of the following carcinogens may cause cancer penis?

- A. Smegma
- B. Ionizing radiation
- C. Human papilloma virus
- D. Asbestos

2. All of the following are hormone dependant tumors except

- A. Breast cancer
- B. Ovarian cancer
- C. Endometrial cancer
- D. Basal cell carcinoma

3. Ultraviolet rays can cause all of the following cancers except.....

- A. Skin squamous cell carcinoma,
- B. Gastric carcinoma
- C. Basal cell carcinoma,
- D. Melanoma

4. Helicobacter pylori is the major risk factor for

- A. Gastric carcinoma
- B. Cervical carcinoma
- C. Urinary bladder carcinoma
- D. Hepatocellular carcinoma

5. Cervical carcinoma may be caused by which of the following.....

- A. Artificial ionizing radiation
- B. Human papilloma virus
- C. Epstein bar virus
- D. Bilharziasis

1. A	2. D	3. B	4. A	5. B
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6. Epstein bar virus may cause..... ?

- A. Osteosarcoma
- B. Hepatocellular carcinoma
- C. Burkitt's lymphoma
- D. Gastric lymphoma

7. Urinary bladder carcinoma can be caused by.....

- A. Bilharziasis
- B. Helicobacter pylori
- C. Human papilloma virus
- D. Asbestos

8. Azo dyes red and yellow food colors can cause.....

- A. Gastric carcinoma,
- B. Hepatocellular carcinoma
- C. Lung carcinoma
- D. Urinary bladder carcinoma

9. Smoking can cause all of the following cancers except.....?

- A. Lung cancer
- B. Urinary bladder cancer
- C. Oral cavity cancer
- D. Colorectal cancer

10. Which of the following may cause leukemia?

- A. Aflatoxin B1
- B. Nitrosamine
- C. Cyclophosamide
- D. Asbestos

6. C	7. A	8. B	9. D	10. C
------	------	------	------	-------

**11. Aflatoxin B1 may cause which of the following.....**

- A. Lung cancer
- B. Urinary bladder cancer
- C. Stomach cancer
- D. Hepatocellular carcinoma

12. Asbestos may cause which of the following

- A. Lung cancer
- B. Urinary bladder cancer
- C. Stomach cancer
- D. Nasopharyngeal carcinoma

13. Nitrosamine compounds may cause which of the following

- A. Hepatocellular carcinoma
- B. Urinary bladder cancer
- C. Stomach cancer
- D. Nasopharyngeal carcinoma

14. Pleural mesothelioma may be caused by.....

- A. Epstein bar virus,
- B. Asbestos
- C. Bilharziasis
- D. Aflatoxin B1

15. Osteosarcoma may be caused by

- A. Artificial ionizing radiation
- B. Helicobacter pylori
- C. Tar
- D. Epstein bar virus

11.D

12.A

13.C

14.B

15.A



16. All of the following are external carcinogens except

- A. Aflatoxin B1
- B. Asbestos
- C. Ultraviolet rays
- D. Smegma

17. Which of the following is a hereditary premalignant lesion

- A. Leukoplakia,
- B. Atypical endometrial hyperplasia
- C. Xeroderma pigmentosa
- D. Adenomatous polyp of colon

18. Which of the following is a high risk premalignant lesion

- A. Leukoplakia,
- B. Multiple familial polyposis coli
- C. Endometrial hyperplasia,
- D. Dysplasia

19. In which of the following development of cancer is 100%

- A. Xeroderma pigmentosa
- B. Leukoplakia,
- C. Endometrial hyperplasia,
- D. Dysplasia

20. Which of the following is an acquired premalignant lesion

- A. Xeroderma pigmentosa
- B. Familial breast cancer
- C. Familial ovarian cancer
- D. Adenomatous polyp of colon

16.D	17.C	18.D	19.A	20.D
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21. Which of the following has a low incidence to turn malignant?

- A. Xeroderma pigmentosa
- B. Leukoplakia,
- C. Multiple familial polyposis coli
- D. All of the above

22. Regarding dysplasia which of the following is correct.....

- A. It is disordered neoplastic cellular proliferation in epithelial cells
- B. There is normal arrangement of cells.
- C. It is characterized by loss of individual cell uniformity
- D. All of the above

23. Regarding carcinoma in-situ which of the following is correct

- A. They are dysplastic changes that affect the whole thickness of epithelium
- B. Basement membrane is intact
- C. There is no invasion
- D. All of the above

24. The second step in tumor formation is.....

- A. Initiation
- B. Promotion
- C. Progression
- D. Differentiation

25. The growth of the tumor becomes autonomous at the stage of.....

- A. Initiation
- B. Promotion
- C. Progression
- D. None of the above

21. B	22. C	23. D	24. B	25. C
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26. This is the first step in carcinogenesis is.....

- A. Initiation
- B. Promotion
- C. Progression
- D. Differentiation

27. Genetic mutations that lead to tumor formation are characterized by

- A. Irreversible,
- B. Non-lethal
- C. Multiple
- D. All of the above

28. Regarding Proto -oncogenes all of the following is correct except.....

- A. They are found in normal cells & responsible for controlling normal growth & proliferation
- B. When they are mutated, they are called oncogenes.
- C. They are recessive genes
- D. Changes that affect them are usually acquired.

29. Which of the following is a Proto -oncogene?

- A. Epidermal Growth factor receptor
- B. P53
- C. BRCA-1 & 2
- D. Bcl2

30. Epidermal Growth factor receptor is mutated in.....

- A. Gastric carcinoma
- B. Breast carcinoma
- C. Thyroid carcinoma
- D. Hepatocellular carcinoma

26.A

27.D

28.C

29.A

30.B



31. Regarding tumor suppressor genes which of the following is correct

- A. They act as dominant genes
- B. They code the production of proteins that inhibit cell proliferation
- C. Their mutations are always inherited
- D. All of the above

32. All of the following are tumor suppressor genes except.....

- A. P53
- B. BRCA-1
- C. BRCA-2
- D. Bcl2

33. The tumor suppressor gene that is mutated in most tumors is.....

- A. P53
- B. BRCA-1
- C. BRCA-2
- D. Pax

34. BRCA-1 & 2 genes are mutated in.....

- A. Gastric carcinoma
- B. Lung carcinoma
- C. Breast carcinoma
- D. Hepatocellular carcinoma

35. Which of the following is a proapoptotic gene.....

- A. P53
- B. Pax
- C. BRCA-1 & 2
- D. Bcl2

31. B	32. D	33. A	34. C	35. B
-------	-------	-------	-------	-------

**36. Activation of Bcl2 gene is seen in.....**

- A. Gastric carcinoma
- B. Follicular B cell lymphoma
- C. Ovarian carcinoma
- D. Hepatocellular carcinoma

37. Xeroderma Pigmentosa occurs due to mutations of.....

- A. DNA mismatch repair genes
- B. Antiapoptotic genes
- C. Proto -oncogenes
- D. All of the above

38. Repair of daily minor damages of DNA occurs by.....

- A. DNA polymerase ,
- B. DNA helicase
- C. DNA ligases
- D. None of the above

39. Tumor progression means.....

- A. Proliferation of the initiated cells resulting in monoclonal expansion from a single initiated progenitor cell
- B. Aggressiveness of tumors increase with time & acquire more malignant character
- C. Acquisition of irreversible non lethal genetic mutation
- D. None of the above

40. Which of the following angiogenic factors is produced by tumor cells

- A. Fibroblastic growth factor
- B. TGF-alpha
- C. TNF
- D. All of the above

36. B

37. A

38. C

39. B

40. A



1. **All of the following are diseases of lymph vessels except.....?**

- A. Acute lymphangitis
- B. Erysipelas
- C. Acute lymphadenitis
- D. Hamartomas

2. **.....is an acute inflammation of lymphatic vessels and the perilymphatic blood vessels?**

- A. Acute lymphangitis
- B. Erysipelas
- C. Acute lymphadenitis
- D. Hamartomas

3. **Acute lymphangitis is caused mainly by.....**

- A. Staphylococcus aureus
- B. Streptococcus pyogenes
- C. Pseudomonas
- D. Pneumococci

4. **Acute lymphangitis is complicated by.....**

- A. Chronic lymphadenitis
- B. Hamartomas
- C. Erysipelas
- D. Chronic lymphangitis

5. **Erysipelas is**

- A. Spreading acute lymphangitis of dermis usually of the face
- B. Lymph node enlargement
- C. Malignant neoplasm derived from cells native to lymphoid tissue
- D. None of the above

1. C

2. A

3. B

4. D

5. A



6. Regarding erysipelas which of the following is correct..... ?

- A. It is due to pseudomonas infection
- B. The area is flat, painless, red with ill-defined margin
- C. It lasts for 1-3 weeks
- D. It heals with disfigurement

7. All of the following causes specific chronic lymphangitis except.....

- A. T.B.
- B. Streptococcus pyogenes
- C. Syphilis
- D. Filariasis

8. Which of the following is a malignant tumor of lymph vessels.....

- A. Lymphangiosarcoma
- B. Lymphangioma
- C. Lymphadenopathy
- D. Lymphadenitis

9. Lymphangioma is.....?

- A. Malignant tumor of lymph vessels
- B. Benign tumor of lymph vessels
- C. Inflammation of lymph vessels
- D. Hamartoma of lymph vessels

10.is lymph node enlargement?

- A. Lymphangioma
- B. Lymphangitis
- C. Lymphadenopathy
- D. Lymphangiosarcoma

6. C

7. B

8. A

9. D

10. C



11. All of the following are non neoplastic causes of lymphadenopathy except.....

- A. Acute lymphadenitis
- B. Chronic lymphadenitis
- C. Histocytosis X
- D. Hodgkin's lymphoma

12. In acute bacterial lymphadenitis, lymph nodes are.....

- A. Matted
- B. Firm
- C. Tender
- D. Painless

13. Acute bacterial lymphadenitis is complicated by.....

- A. Acute suppurative lymphadenitis
- B. Chronic specific lymphadenitis
- C. Lymphoma
- D. Lymphangiosarcoma

14. Regarding glandular fever which of the following is correct?

- A. It is associated with acute viral lymphadenitis
- B. Present with fever, sore throat and enlarged cervical lymph nodes
- C. Some cases are misdiagnosed as lymphoma
- D. All of the above

15. In chronic non specific lymphadenitis, lymph nodes are

- A. Soft
- B. Matted
- C. Not enlarged
- D. All of the above

11.D

12.C

13.A

14.D

15.B



16. In follicular hyperplasia of lymph nodes.....:

- A. Nodal architecture is lost
- B. There is an increase in the number and size of follicles, which show variation in shape.
- C. There is wide lymphatic sinusoids
- D. All of the above

17. Regarding sinus histiocytosis of lymph nodes which of the following is correct?

- A. Lymphatic sinusoids are narrow
- B. Lymphatic sinusoids are normal in shape
- C. There is increased numbers of intra-sinusoidal macrophages
- D. There is an increase in the number and size of follicles

18. Most common extra-nodal site involved in histiocytosis X is.....?

- A. Bone
- B. Lung
- C. Liver
- D. Brain

19. Regarding histiocytosis X which of the following is correct

- A. There is proliferation of Langerhans cells
- B. It is more common in childhood from 1 to 3 years old
- C. Langerhans cells show prominent nuclear grooves with admixed eosinophils
- D. All of the above

20. Hodgkin's lymphoma is characterized by presence of.....

- A. Multinucleated giant cells
- B. Reed-Sternberg cell
- C. Littoral cells
- D. Epithelioid cells

16.B

17.C

18.A

19.D

20.B



21. Reed-Sternberg cell is characterized by.....?

- A. Signet ring appearance
- B. Owl-eye appearance
- C. Cart-wheel appearance.
- D. None of the above

22. The immunophenotype of Reed-Sternberg cell is positive expression of

- A. CD 3
- B. CD 20
- C. CD 15
- D. CD 8

23. Regarding non-Hodgkin's lymphoma which of the following is correct

- A. It is characterized by the presence of Reed Sternberg cell
- B. Less frequent involvement of extra-nodal sites than Hodgkin's
- C. B cell type express CD 3
- D. It has worse prognosis than Hodgkin's

24. Reed-Sternberg cell is characterized by

- A. Enlarged multilobated nucleus with prominent nucleoli
- B. Small cell
- C. Scanty basophilic cytoplasm
- D. All of the above

25. Which of the following causes acute splenomegaly

- A. Hemolytic anemia
- B. Glandular fever
- C. Bilharziasis
- D. Histiocytosis x

21. B

22. C

23. D

24. A

25. B



26. All of the following causes acute splenomegaly except.....

- A. Amyloidosis
- B. Septicemia
- C. Pyemia
- D. Typhoid fever

27. All of the following causes chronic splenomegaly except

- A. Lymphoma
- B. Storage diseases
- C. Brucellosis
- D. Infectious mononucleosis

28. Which of the following causes moderate splenomegaly

- A. Lymphomas
- B. Malaria
- C. Tuberculosis
- D. Typhoid fever

29. Which of the following increases the weight of spleen more than 1000 gm?

- A. Autoimmune hemolytic anemia
- B. Malaria
- C. Amyloidosis
- D. Acute splenitis

30. Enlarged spleen with weight less than 500 mg is associated with.....

- A. Glandular fever
- B. Chronic splenitis
- C. Congestive splenomegaly
- D. Storage diseases

31. Mild splenomegaly is caused by all of the following except.....

- A. Acute splenitis
- B. Septicemia
- C. Pyemia
- D. Histiocytosis x

26. A

27. D

28. C

29. B

30. A

31. D

General Pathology + IBL (Written)
(L1 Introduction)

☒ Enumerate 4 types of pathological biopsies.

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☒ Mention importance of fixation in anatomic pathology.

.....

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.....

.....

☒ Mention importance of frozen section technique.

.....

.....

☒ Mention the scientific name. **اسئلة كلية**

1. A specimen taken from the lesion during life.

.....

2. The process by which a disease develops.

.....

3. The changes induced in the cells and organs of the body and caused by disease.

.....

(L2 Reversible Cell injury)

Enumerate 4 congenital causes of developmental growth disturbances.

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Enumerate 4 types of developmental growth disturbances.

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Enumerate 4 causes of cell injury.

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Mention 2 examples of atrophy.

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Mention 2 examples of Hypertrophy.

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Mention 2 examples of Hyperplasia.

.....
.....

☒ Mention 2 examples of metaplasia.

.....
.....

☒ Mention 2 causes of fatty change.

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.....

(L3 irreversible Cell injury)

☒ Define necrosis.

.....
.....

☒ Define Apoptosis.

.....
.....

☒ Enumerate Post necrotic changes in nucleus.

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.....

☒ Enumerate 4 types of necrosis.

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.....

☒ Define Autophagy.

.....
.....

☒ Compare between necrosis and apoptosis.

	Necrosis	Apoptosis
Number of cells		
Gene activation		
ATP		
Cell membrane		
Characteristic feature		
Inflammation		
Nature (physiological / pathological)		

(L4 Tissue accumulation)

☒ Mention 2 examples of hyalinosis.

.....
.....

☒ Mention 2 examples of localized amyloidosis.

.....
.....

☒ Mention 2 examples of systemic amyloidosis.

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.....

☒ Enumerate types of Pathological calcification.

.....
.....
.....

	Dystrophic calcification	metastatic calcification
Def		
Example		

	Localized hemosiderosis	Generalized hemosiderosis
cause		

(L5 Acute inflammation)

Enumerate Causes of Acute inflammation.

.....
.....
.....

Enumerate steps of inflammatory response. (5Rs)

R:.....
R:.....
R:.....
R:.....
R:.....

Compare between acute & chronic inflammation.

	acute inflammation	chronic inflammation
Onset & duration		
cause		
Repair?		

☒ Compare between Exudate & transudate. مهم جداً جداً

	Exudate	transudate
Cause		
Protein content		
Clotting?		
Specific gravity		
Inflammatory cells		
Occurs in		

☒ Define chemotaxis.

.....
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☒ Enumerate Emigration steps. MRAT

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☒ Enumerate phagocytosis steps.

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☒ Enumerate 2 vascular and 2 cellular changes.

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☒ Enumerate cardinal signs of acute inflammation. مهم جداً جداً

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☒ Enumerate types of suppurative inflammation.

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☒ Enumerate types of non suppurative inflammation. SCP HNA

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☒ Enumerate fate of acute inflammation.

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.....

(L6 chronic inflammation)

☒ Enumerate Causes of chronic inflammation.

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.....

.....

☒ Compare between Acute & chronic inflammation. مهم جداً جداً

	acute inflammation	chronic inflammation
Onset		
duration		
irritant		
phenomena		
Inflammatory cells		
Repair?		

Enumerate systemic effect. **FEAL**

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Define granuloma.

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Enumerate cells forming granuloma. **FL GEM**

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Enumerate types of giant cells.

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Compare between types of granuloma.

infective granuloma	Non infective granuloma

(L7 Repair)

☒ Enumerate types of repair.

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☒ Compare between 1ry intension & 2nd intension. مهم جداً جداً

	1ry intension	2nd intension
Tissue loss		
infection		
edges		
healing		
complications		
scar		

☒ Enumerate factors affecting healing.

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☒ Enumerate complications of healing.

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Enumerate complications of fibrosis.

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(L8 Infection)

Enumerate exogenous methods of infection.

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Define bacteremia / viremia.

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Define pyemia.

.....
.....

Define toxemia.

.....
.....

Define septicemia.

.....
.....

☒ Compare between types of systemic pyemia.

	venous	arterial
sources		
effects		

☒ Describe portal pyemia.

	portal
sources	
effects	

☒ Compare between bacteremia & septicemia.

bacteremia	septicemia

(L9 Neoplasia)

Compare between Benign & Malignant tumors.

	Benign tumors	Malignant tumors
Definition		
origin		
Rate of growth		
Mode of growth		

Compare between Benign & Malignant tumors.

	Benign tumors	Malignant tumors
Behavior & prognosis		

Enumerate criteria of malignancy.

.....

.....

.....

.....

Compare between carcinoma & sarcoma.

carcinoma	sarcoma

Define locally malignant tumor.

.....

.....

Mention 2 examples of locally malignant tumor.

.....

.....

(L10 carcinogenesis)

Enumerate 3 carcinogens of HCC.

.....
.....
.....

Define dysplasia.

.....
.....

Enumerate 3 steps of carcinogenesis.

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.....
.....

(L11 Disorders of lymphatic system) IBL

Define acute lymphangitis.

.....
.....

Define erysipelas.

.....
.....

Enumerate causes of lymphadenopathy.

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Define Hodgkin's lymphoma.

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.....

Describe reed Sternberg cells.

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	Hodgkin's lymphoma	Non-Hodgkin's lymphoma
Presence of RS cells		
Prognosis		
immunophenotype		

Enumerate causes of Massive splenomegaly > 1000gm.

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