

Alex School of Medicine

2016

**Pathobiology Module
Booklet**

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Anatomy

1. All of the following statements concerning the lymphatic drainage of the lateral part of the hand are correct except.
 - a. They pass to supra-trochlear LN
 - b. They terminate into the apical group of the axillary lymph nodes.
 - c. They follow the cephalic v.
 - d. They pierce the clavi-pectoral fascia
2. All of the following statements about axillary lymph nodes are correct except.
 - a. The subcapsular group is on the posterior wall of the axilla.
 - b. Efferents from anterior and posterior groups pass to the Apical and central groups
 - c. Lymph vessels from the central and lateral parts of the mammary gland pass to the subcapsular group
 - d. Efferents from central group pass to the apical group
3. All of the following statements about axillary lymph nodes are correct except
 - a. The central group is on the floor of the axilla
 - b. Lymph vessels from all the upper limb pass to lateral and apical groups
 - c. Efferents from the apical group pass into the subclavian lymph trunk.
 - d. Lymphatics from the lower part of the back of the neck pass to the pectoral group
4. The following statements about the lymphatic drainage of the lower limb are true except.
 - a. The superficial lymphatics accompany the great saphenous v. to drain into the superficial inguinal lymph nodes
 - b. lateral part of the foot is drained by the distal group of superficial inguinal lymph nodes
 - c. Anterior abdominal wall below the umbilicus is drained into medial horizontal gp of superficial inguinal lymph nodes
 - d. The distal group of superficial inguinal lymph nodes lies along the terminal part of the great saphenous vein.
5. All of the following are drained through superficial inguinal lymph nodes except.
 - a. Buttock and back below the level of the waist.
 - b. External genitalia of both sexes except the testis
 - c. Glans penis and clitoris
 - d. Lower half of the anal canal and perineum.
6. Afferent of parasternal lymph nodes are
 - a. Anterior abdominal wall
 - b. Ant thoracic wall
 - c. Deep parts of the breast
 - d. All of the above
7. Sites of the posterior intercostal lymph nodes are

- a. Upper surface of diaphragm
- b. Posterior end of the intercostal space
- c. Internal thoracic vessels
- d. All of the above

8. All of the following are true about diaphragmatic lymph nodes except

- a. They drain into parasternal lymph nodes
- b. Its afferent is the posterior part s of intercostal
- c. Found into the upper surface of diaphragm
- d. Divide into 4 groups

9. Which lymph node are found around esophagus

- a. Brachiocephalic lymph nodes
- b. Tracheobronchial lymph nodes
- c. Posterior mediastinal lymph nodes
- d. Posterior intercostal lymph nodes

10. Mural group of the small intestine are found in

- a. Peritoneum & margin of gut
- b. Along course of sup mesenteric artery
- c. Around origin of superior mesenteric artery
- d. All of the above

11. Which of the following are group from large intestine

- a. Paratracheal group
- b. Preaortic group
- c. Epiploic group
- d. Lateral diaphragmatic group

12. External iliac lymph nodes are received lymphatic's from

- a. Pelvic visceral lymph nodes
- b. Inguinal lymph nodes
- c. Anterior abdominal lymph nodes
- d. Lumber lymph nodes

13. All are true about the subclavian artery except.

- a. It gives off the thyrocervical trunk.
- b. It's divided into 3 parts in relation to scalenus anterior muscle.
- c. The left subclavian artery arises from the arch of aorta.
- d. The right subclavian artery arises from the arch of aorta.

14. All of the following are branches of the thyrocervical trunk of the subclavian artery except.

- a. Transverse cervical artery.
- b. Suprascapular artery.
- c. Deep cervical artery.
- d. Inferior thyroid artery.

15. All are true about the axillary artery except.

- a. It starts at the outer border of the 1st rib.
- b. It's divided into 3 parts by pectoralis minor muscle.
- c. It terminates at the level of teres minor muscle.
- d. It is the continuation of the subclavian artery.

16. The artery best used for blood pressure measurement is.

- a. Axillary artery.
- b. Brachial artery.
- c. Radial artery.
- d. Ulnar artery.

17. All of the following arteries share in the anastomosis around the scapula except.

- a. Suprascapular artery, branch of thyrocervical trunk.
- b. Subscapular artery, branch of axillary artery.
- c. Descending scapular artery.
- d. Lateral thoracic artery.

18. Profunda brachii gives.

- a. Superior ulnar branch.
- b. Inferior ulnar branch.
- c. Anterior and posterior radial branches.
- d. Humeral nutrient artery.

T/F:

19. The suprascapular artery is a branch of 1st part subclavian artery.

20. Subscapular artery is a branch of 1st part axillary artery.

21. The superficial palmar arch is formed mainly of radial artery.

22. The cephalic vein drains into the axillary vein.

23. All of the following arteries share in the cruciate anastomosis around the lesser trochanter except.

- a. Inferior branch of superior gluteal artery.

- b. Transverse branch of lateral circumflex branch of profunda femoris.
- c. Transverse branch of medial circumflex branch of profunda femoris.
- d. Ascending branch of 1st perforating artery of profunda femoris.

24. All of the following is true about femoral artery except.

- a. The femoral nerve lies lateral to it.
- b. It ends at the adductor hiatus as popliteal artery.
- c. It transverses the femoral triangle.
- d. It's the continuation of the internal iliac artery.

25. The distal border of popliteal muscle marks all of the following except.

- a. Termination of popliteal artery.
- b. Termination of popliteal vein.
- c. Beginning of anterior tibial artery.
- d. None of the above.

26. All of the following are genicular branches of the popliteal artery except.

- a. Superior lateral genicular artery.
- b. Inferior medial genicular artery.
- c. Descending genicular artery.
- d. Middle genicular artery

27. The posterior tibial artery shares in the anastomosis around the knee by.

- a. Medial malleolar artery.
- b. Circumflex fibular artery.
- c. Peroneal artery.
- d. All of the above.

28. Which of the following is false regarding the great saphenous vein.

- a. It ends into the femoral vein at the saphenous opening.
- b. It contains many valves.
- c. It's accompanied along its course with the sural nerve.
- d. It passes anterior to the medial malleolus.

T/F.

29. The small saphenous vein passes posterior to the medial malleolus.

30. The small saphenous vein end into the popliteal vein.

Answers

- | | | | | | |
|------|------|------|------|-------|-------|
| 1. A | 3. D | 5. C | 7. B | 9. C | 11. C |
| 2. C | 4. B | 6. D | 8. B | 10. A | 12. b |

13. D	16. B	19. T	22. T	25. B	28. C
14. C	17. D	20. F	23. A	26. C	29. F
15. C	18. C	21. F	24. D	27. B	30. T

Essay:

- 1- Compare between 3 types of lymphatic of thoracic wall?
- 2- Compare between 2 types of lymphatic of thoracic wall?
- 3- Discuss the lymphatics of the abdomen?
- 4- Compare between lymphatics of small and large intestine?
- 5- Discuss the central abdomen lymph nodes?
- 6- Discuss the cisterna chyli?
- 7- Write a short note about

- | | | |
|-----------------------------|-------------------------------|--------------------|
| ✓ parasternal LNs | ✓ Tracheobronchial LNs | ✓ Common iliac LNs |
| ✓ posterior intercostal LNs | ✓ Brachiocephalic LNs | ✓ Paraaortic LNs |
| ✓ Diaphragmatic LNs | ✓ Small Intestinal LNs | ✓ Pre-aortic LNs |
| ✓ posterior mediastinal LNs | ✓ Large intestine LNs | ✓ Retro-aortic LNs |
| | ✓ External/internal iliac LNs | ✓ Cisterna Chyli |

- 8- Enumerate the branches of both radial and ulnar arteries.
- 9- Mention the arteries that share in the anastomosis around the elbow.
- 10- Mention 3 names given to the same artery.
- 11- Give 2 branches of 2 different parts of the axillary artery. (2 branches each)
- 12- Enumerate the arteries that share in the anastomosis around the knee.
- 13- Mention the superficial inguinal branches of the femoral artery.
- 14- Mention the beginning, termination and branches of anterior tibial artery.
- 15- Enumerate 3 tributaries of the femoral vein in the thigh.

Bio

1. Xenobiotics are :

- | | |
|--------------------------------|-----------------------------|
| a. Endogenous toxic substances | b. Environmental pollutants |
| | c. Produced by Fermentation |

- d. Produced by Putrefaction
2. The end products of action of bacteria on phenylalanine are .
- Acetic acid and Phenol
 - Propionic acid and Phenol
 - None of the above
3. Which of the following produces indole in large intestine
- Tryptophan
 - Tyrosine
 - Phenylalanine
 - CHO
4. All of the following are from phase one except .
- Hydroxylation
 - Reduction
 - Methylation
 - Hydrolysis
5. Which of the following is major reaction in phase 1 .
- Hydroxylation
 - Reduction
 - Methylation
 - Hydrolysis
6. Aniline is endogenous toxic substance which is hydroxylated .
- True
 - False
 -
7. Phase 1 in aromatic nitrocompounds is .
- Reduction
 - Hydroxylation
 - Hydrolysis
 - None of the above
8. Enzyme of most important reaction of Phase 1 is .
- Microsomal Cytochrome P450 mono-oxygenase
 - Microsomal Cytochrome P450 reductase
 - Mixed function oxidase
 - Both (a) and (b)
 - Both (a) and (c)
 - All of the above
9. Salicylic acid is conjugated with .
- Glycine
 - Glucuronic acid
 - Acetic acid
 - Sulfate
10. Conjugate form of glucuronic acid is found in form of alpha form
- True
 - False
11. Which of the following is conjugated with glycine .
- Benzoate
 - Aniline
 - Salicylate
 - Both a and c
12. Phenylacetic acid is conjugated to .
- Glutamate
 - Glutamine
 - Glycine
 - Sulfuric acid
13. Phenol is more powerful than cresol .
- True

b. False

14. Aniline is produced from benzoic acid .

a. True

b. False

15. Active form of sulfuric acid is PAPS .

a. True

b. False

16. All of the following are non-radical ROS

except.

a. Organic peroxide

b. Inorganic peroxide

c. O_2

d. NO

Match each ROS with its source of production.

17. O_2

18. H_2O_2

19. ROOH

20. HOCl

a. Xanthine oxidase

b. SOD

c. Lipid peroxidase

d. Ispiration

e. Myeloperoxidase

f. SOD & Oxidases

Match each ROS with natural antioxidant.

21. O_2

22. H_2O_2

23. ROOH

24. HOCl

a. Amines

b. Glutathione peroxidase

c. Ubiquinone & cytochromes

25. Are bactericidal agents except.

a. HOCl

b. H_2O_2

c. SOD

d. Chloramines

26. Xanthine oxidase produces

a. Organic H_2O_2

b. Inorganic H_2O_2

c. Singlet O_2

d. Superoxide O_2^-

e. A&D

f. B&D

27. All of the following are fates of superoxide anion except.

a. SOD

b. Haber weiss reaction

c. Fenton reaction

28. All of the following are fates of H_2O_2 except.

a. Catalase

b. Haber weiss reaction

c. Fenton reaction

d. Myeloperoxidase

29. Fe shares in the formation of the following except.

a. OH^\bullet

b. ROO^\bullet

c. $O_2^{\bullet-}$

30. is the most toxic free radical

a. OH^\bullet

b. ROO^\bullet

- c. O_2^-
d. H_2O_2
31. are OH^\cdot scavengers except.
a. Ferritin
b. Ceruloplasmin
c. Albumin
d. SOD
e. Catalase
32. are ROO^\cdot scavengers except.
a. Ferritin
b. Ceruloplasmin
c. Albumin
d. Catalase
e. GSH peroxidase
33. is the physiological terminator of lipid peroxidase chain reaction
a. Vit. A
b. Vit. B
c. Vit. C
d. Vit. E
34. Lipid destruction in oxidative stress results in
a. Hemolytic anaemia
b. CVS disorders
c. Aging disorders
- d. All of the above
35. Glu entry into the brain cells is insulin dependant
a. True
b. False
36. adds in the continual Glu supply to the brain except.
a. Low K_M value & low affinity of GLUT 3 to Glu
b. Glucagon induced hepatic glycogenolysis & fatty acid oxidation in the liver & muscles in the time of hypoglycemia
c. Glucose synthesis from muscle proteins during severe starvation
37. During severe starvation glucose is the major source for brain energy while in hypoglycemia it becomes ketone bodies
a. True
b. False
38. is the fate of glutamate in the brain.
a. Decarboxylation to GABA
b. Congugation to ammonia forming glutamine
c. Transamination to alpha ketoglutarate for energy production
d. All of the above

Answers:

- | | | | | |
|------|------|------|-------|-------|
| 1. B | 4. C | 7. A | 10. B | 13. B |
| 2. A | 5. A | 8. E | 11. D | 14. B |
| 3. A | 6. B | 9. A | 12. B | 15. A |

16. D	20. E	24. C	28. B	32. D
17. D	21. C	25. F	29. C	33. D
18. F	22. B	26. F	30. A	34. D
19. C	23. A	27. C	31. C	

Essay

- 1- Define ROS
- 2- Give an account on
 - a. Free radicals
 - b. Pro-oxidants
 - c. Antioxidants
 - d. Singlet oxygen non radical ROS
 - e. Lipid hydro-peroxides (ROOH)
 - f. Hypochlorous acid (HOCl)
 - g. Superoxide anion
 - h. Hydroxyl radical (OH)
 - i. NO
 - j. Peroxyl radical
- 3- Define detoxification
- 4- Give an account on :
 - a. Hydroxylation
 - b. Reduction
 - c. Hydrolysis
 - d. Glucuronic acid conjugation
 - e. Sulfuric acid conjugation
 - f. Glycine conjugation
 - g. Glutamine and glutamic acid conjugation

Physiology

1. Which of the following is the most variable part of the body in temperature .
 - a. Rectum
 - b. Skin
 - c. Core
 - d. Scrotum

2. The lowest period of human temperature is .
- Evening
 - Sleeping
 - Afternoon
 - Night
3. The monthly cycle rise in temperature of female is .
- 0.5
 - 1
 - 1.5
 - 2
4. There is a rise in the temperature in all of the following cases except .
- Hypothyroidism
 - Hyperthyroidism
 - Exercise
 - Stress
5. Thyroid increases the temperature rapidly .
- True
 - False
6. The heat transfer by contact between two objects having different temp is .
- Conduction
 - Radiation
 - Sweating
 - Urination
7. The water vaporized from the skin and mucous membrane also respiratory passages .
- Insensible water loss
 - Sweating
 - Radiation
 - Goose pimples
8. Goose Pimples is an important mechanism in human to insulate air
- True
 - False
9. During the sympathetic discharge the amount of heat reaching skin is .
- Reduced
 - Increased
10. The peripheral receptors of the heat in the body is mainly .
- Heat receptors
 - Cold receptors
11. The reflexes increasing the temperature is mainly controlled by .
- Posterior hypothalamus
 - Anterior hypothalamus
 - Peripheral skin receptors
 - Peripheral deep receptors
12. The number of heat sensitive neurons in anterior hypothalamus is .
- More
 - Less
 - None
13. When the temperature increase , all the following occurs except .
- Heat loss decreases
 - Heat loss increases
 - Heat production decreases
 - None of the above
14. Cutaneous vasodilatation occurs through .
- Stimulation of anterior hypothalamus
 - Inhibition of posterior hypothalamus
 - None of the above
 - Both

15. Aldosterone helps in acclimatization of heat

- a. True
- b. False

d. Shivering.

17. All the following are causes of hyper thermia except.

- a. Muscle excersice.
- b. Humidify of the air.
- c. Infection.
- d. Brain tumor.

18. Elevation of body temp. higher than the thermoregulatory set point called.

- a. Fever
- b. Hypothermia.
- c. Hyperthermia.
- d. All the above.

16. All the following are mechanisms that increase body temperature except :

- a. Stimulation of post. Hypothalamus sympathetic center.
- b. Stimulation of heat center in ant.hypothalamus .
- c. Increase catecholamine secretion.

T or F

19. Aspirin act directly on hypothalamusto decrease heat production ()

20. At 30°C the body is unable to return the temp. to the normal ()

Answers.

- | | | | |
|------|-------|-------|-------|
| 1. B | 6. A | 11. A | 16. B |
| 2. B | 7. A | 12. A | 17. C |
| 3. A | 8. B | 13. A | 18. C |
| 4. A | 9. A | 14. B | 19. T |
| 5. B | 10. B | 15. A | 20. F |

Essay:

- 1- Discuss the physiological variation of body temperature?
- 2- Compare between the different ways to achieve heat loss and heat production?
- 3- Mention the temperature regulating centers?

- 4- Discuss the temperature regulating mechanism done by body in case of heat to lower body temperature?
- 5- Discuss the temperature regulating mechanism done by body in case of cold to elevate body temperature?
- 6- Compare between hyperthermia and hypothermia?
- 7- Discuss the pathogenesis of fever?
- 8- What are the peripheral receptors for detection of temperature?

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Pharmacology

1. MHC II class of antigen is found in all except :
 - a. Lung

- b. Vascular endothelium
- c. B lymphocytes
- d. Antigen presenting cells

2. MHC type I stimulates :

- a. T helper cells
- b. T cytotoxic cells
- c. B lymphocytes
- d. All of the above

3. All of the following favourize the cytotoxic response except :

- a. Interferon gamma
- b. IL-2
- c. IL-12
- d. IL-4

4. All of the following are small molecule drugs except :

- a. Mycophenolate mofetil
- b. Sirolimus
- c. Lufilamide
- d. Muramona

5. Which of the following is calcineurin inhibitor :

- a. Cyclosporin
- b. Tacrolimus
- c. Sirolimus
- d. Both (a) and (b)
- e. None of the above

6. All of the following are true about corticosteroids except :

- a. Decrease lymphocytes number
- b. Mobilize lysosomes
- c. Inhibits cytokines

- d. Can lead to CVS complications

7. Azathioprine :

- a. Depleting antibodies
- b. Nucleotide synthesis inhibitor
- c. Immunophilin binding
- d. Corticosteroids

8. Cyclosporin produce gingival hypertrophy in

- a. 10-30 % of cases
- b. 50 %
- c. 5 %
- d. 75 %

9. Tacrolimus acts on T – cell dependent immunity only :

- a. True
- b. False

10. Sirolimus is produced from Streptomyces Hygroscopius :

- a. True
- b. False

11. Sirolimus can be well used in liver transplantation :

- a. True
- b. False

12. Which of the following causes nephrotoxicity

- a. Cyclosporin
- b. Tacrolimus
- c. Sirolimus
- d. All of the above

13. MPA can cause neurotoxicity :

- a. True
- b. False

14. Which of the following can be used in GVH reaction :

- a. Sirolimus
- b. Tacrolimus

c. MPA

d. ATG

15. Cytokine release syndrome is in form of all except :

a. Fever

b. Chills

c. Hypotension

d. Hypertension

16. Muramona is used ,

a. Orally

b. IM

c. IV

d. SC

17. Baximab is human form of monoclonal anti CD 25 ,

a. True

b. False

18. Infection can be caused by all except :

a. Daclizimab

b. ATG

c. Azathioprine

d. None of the above

19. Palliative therapy is.....

a. To treat tumors as leukemias

b. To treat operable tumors

c. To treat solid inoperable tumors

20. All of the following are S phase specific agents except.

a. MTX

b. Vinblastine

c. 5-FU

d. 6-mercaptopurine

21. Which of the following are M phase specific agents.

a. Antimetabolites

b. Plants alkaloids

c. Alkylating agents

d. Doxorubicin

Match each agent with its characteristic toxicity

22. Cyclophosphamide	a. cardiotoxicity
23. Mtx	b. lung fibrosis
24. Paclitaxel	c. mucocutaneous reaction
25. Doxorubicin	d. hypersensitivity reaction
26. Bleomycin	e. hemorrhagic cystitis

27. Chemotherapy induced myelosuppression can be managed by all the following except.

a. Epoetin alpha

b. Ondansetron

- c. Filgrastim
- d. Sargramostim

28. Inhibits topoisomerase II

- a. Etoposide
- b. Paclitaxel
- c. Doxorubicin
- d. A & C

29. Causes lung fibrosis

- a. MTX
- b. 6-mercaptopurine
- c. Bleomycin
- d. A & C

30. Used for treating ER positive breast cancer

- a. Tamoxifen
- b. Anastrozole
- c. Trastuzumab
- d. A & B

31. Potassium is given in Digitalis Toxicity

- a. True
- b. False

32. B – blockers could have a beneficial effect in treating CHF

- a. True
- b. False

33. The following can be useful in HF except.

- a. Furosemide (diuretic)
- b. Verapamil (Ca channel blocker)
- c. Digoxin
- d. Captopril (ACE inhibitor)

34. Heart failure associated with atrial fibrillation is best treated with.

- a. Furosemide (diuretic)
- b. Verapamil (Ca channel blocker)
- c. Digoxin
- d. Captopril (ACE inhibitor)

35. Which of the following can modify the action of digoxin.

- a. Quinidine

- b. Chlorothiazide (K^+ depleting diuretic)
- c. Poor kidney function
- d. Increased plasma level of Ca^{+2}
- e. All of the above

36. Which of the following is an inotropic drug that acts by inhibiting cardiac PDE

- a. Dobutamine
- b. Amrinone
- c. Hydralazine
- d. Amlodipine

37. This is a drug of first choice for treating patients with HF

- a. Amiodarone
- b. Amrinone
- c. Propranolol
- d. Enalapril
- e. None of the above

38. In therapy of congestive HF, the most important pharmacological action of Digitalis is its ability to.

- a. Produce diuresis in edematous patients
- b. Reduce venous pressure
- c. Increase myocardial contractile force
- d. Increase heart rate
- e. Decrease pacemaker automaticity in his bundle

39. When digitalis is given to a patient with congestive HF and atrial fibrillation

- a. Cardiac output is unchanged
- b. Ventricular efficiency is decreased
- c. A decrease in heart rate is the 1st effect
- d. None of the above

40. In congestive heart failure which of the following have elevated levels

- a. Angiotensin II
- b. Norepinephrine
- c. Aldosterone
- d. All of the above

41. A patient was admitted to the hospital complaining of severe edema, dyspnea and was diagnosed as HF. The 1st drug that should be given is:

- a. B-blocker
- b. Diuretic

- c. Verapamil
- d. K replacement
- e. Digoxin

42. In hypertension stage 1:

- a. Systolic BP is 140–159
- b. Systolic BP is 120–139
- c. Diastolic BP is less than 80
- d. Diastolic BP is 80–89

43. In non-pharmacologic treatment of hypertensive patients

- a. Exercise is useful.
- b. Decrease salt intake should be taken in consideration.
- c. Increased potassium intake is helpful
- d. All of the above

44. All the following are used in treatment of hypertension except.....

- a. ACE inhibitors and AT-II antagonists
- b. Calcium channel blockers
- c. Beta-adrenoceptor blockers
- d. Antidiuretics

45. For choice of initial antihypertensive monotherapy, which of the following considerations should be followed?

- a. Target end organ damage
- b. Co-existing; cardiovascular disease, renal disease or diabetes
- c. Renin status
- d. Side effects to the selected drug
- e. All of the above

46. The ideal antihypertensive drug should.....

- a. Decrease BP
- b. Increase the risk of the organ damage associated with hypertension
- c. Cause reflex tachycardia or fluid retention
- d. Non-of the above

47. High renin hypertension occurs in.....

- a. Younger<55
- b. White
- c. Black

d. Both a & b

48. The drug of choice for uncomplicated mild-moderate hypertension in black & elderly patients is.....

- a. Beta-adrenoceptor blocking drugs
- b. Verapamil
- c. Hydralazine
- d. Diuretics

49. Diuretics should be indicated for isolated systolic hypertension

- a. True
- b. False

50. Low dose thiazide diuretics are not synergistic with other AHDs in severe hypertension

- a. True
- b. False

51. The mechanism of action of low efficacy diuretics is

- a. They lower BP by causing diuresis
- b. They lower plasma volume & COP
- c. After chronic use they cause a reduction in BP by VD & decrease in PVR
- d. All of the above

52. The advantage of low efficacy diuretics is

- a. They are relatively inexpensive
- b. They cause hypokalemia
- c. They cause hypercalcemia
- d. Non-of the above

53. Loop diuretics are used for hypertension associated with

- a. Myocardial infarction
- b. Diabetes mellitus
- c. Renal insufficiency
- d. Right side heart failure

54. The drug of choice for uncomplicated HTN in high renin patients is.....

- a. Diuretics
- b. Beta-adrenoceptor blocking agents
- c. Amlodipine
- d. All of the above

55. Beta-adrenoceptor blocking drugs act by inhibiting the release of renin

- a. a –true

b. b –false

56. Beta-adrenoceptor blocking drugs increase the heart rate and contractility, thus lowering COP

a. True

b. False

57. Beta-adrenoceptor blocking drugs have no effect on the sympathetic nervous system

a. True

b. False

58. All of the following are the effects of angiotensin II except

a. Increased renal sodium reabsorption

b. Right ventricular hypertrophy

c. Vasoconstriction

d. Non-of the above

59. The effect of the use of the ACEIs & ARBs is

a. VD of both arterioles & viens

b. Decrease aldosterone release

c. No reflex tachycardia

d. All of the above

60. The ACEIs & ARBs can be used in the following cases except

a. Hypertension with nephropathy

b. Hypertension with concomitant diabetes mellitus

c. Low renin hypertension

d. High renin hypertension having contraindication to beta blockers

61. The drug of choice in hypertension with diabetes mellitus is

a. ACEIs & ARB

b. Beta blockers

c. Diuretics

d. All of the above

62. ACEIs & ARB have many adverse metabolic effects on blood glucose & lipid profile

a. True

b. False

63. ACEIs & ARB have reflex tachycardia & fluid retention effects

a. True

b. False

64. Calcium channel blockers are indicated in which of the following cases

- a. Isolated systolic hypertension in elderly if diuretics are contraindicated
- b. Low renin hypertension
- c. Hypertension with diabetes
- d. All of the above

65. Calcium channel blockers are acting by

- a. Blocking calcium channels in the arterial smooth muscle
- b. Decreasing the HR & the force of contraction
- c. Both a & b
- d. Decreasing aldosterone release

66. Verapamil is one of the dihydropyridines

- a. True
- b. False

67. Hydralazine

- a. Causes reflex tachycardia
- b. Causes salt & water retention
- c. Is used in pregnancy
- d. Both a & b
- e. All of the above

68. Sodium nitroprusside

- a. Acts by increasing NO
- b. Increases c GMP
- c. Is used in emergency treatment of severe hypertension
- d. All of the above

69. Arrhythmia is abnormality of the following

- a. Site of origin
- b. Rate and regularity
- c. Conduction
- d. All of the above

70. The most common cause of arrhythmia is

- a. Enhanced automaticity
- b. After depolarizations and triggered automaticity
- c. Reentry

71. Phase 0 in ventricular myocyte is related mainly to

- a. out flow of K
- b. Inflow of ca

- c. Inflow of Na
- d. Inflow of K

72. Phase 0 in Nodal cell is related mainly to

- a. Inflow of Na
- b. Inflow of Ca
- c. Outflow of K
- d. Outflow of Ca

73. The refractory period corresponds the following phases in action potential

- a. 1,2,3
- b. 0,1,2
- c. 2,3,4
- d. 4,0,1

74. Na channels are inactive in the phases +.....+....., they are active in the phase....., and they are resting in the phase.....

- a. 0
- b. 1
- c. 2
- d. 3
- e. 4

75. Regarding ECG, QRS complex represents....., and wave P represents.....

- a. Atrial depolarization
- b. Atrial recovery
- c. Ventricular depolarization
- d. Ventricular recovery

76. Class one Drugs are which of the following

- a. Beta blockers
- b. Ca channel inhibitors
- c. Na channel inhibitors
- d. K channel inhibitors

77. Regarding Class one

- a. The more the heart rate the more the efficiency
- b. The more the polarization the more the efficiency
- c. All members are associated with the same type of pro-arrhythmia
- d. Prolongs duration QRS complex on ECG
- e. A & D

78. Quinidine is an example of..... and Amiodarone is from.....

- a. Class Ia
- b. Class Ib
- c. Class Ic
- d. Class II
- e. Class III

79. All is true about quinidine except

- a. It prolongs
- b. Prolongs QT interval
- c. Suppresses Ventricular and supra-ventricular arrhythmia
- d. Produces pro-arrhythmia in the form of mono-morphic ventricular tachycardia
- e. Intermediate kinetics of interaction with Na channels

80. All of the following are true about lidocaine except

- a. From Ib class
- b. Rapid kinetics of interaction with Na channels
- c. Suppression of ventricular arrhythmia by blocking of Na and K channels
- d. The major side effects are in the CNS
- e. Low bioavailability if taken orally

81. The most potent Na channel blocking agents are

- a.
- b. V
- c. Ic
- d. II
- e. III

82. All is true about class Ic except

- a. Slow interaction with Na channels
- b. The drugs of choice for arrhythmia after myocardial infarction
- c. Associated with mono-morphic proarrhythmia
- d. Used in ventricular and atrial arrhythmias when it is life threatening

83. Regarding B blockers

- a. The least toxic
- b. Rate control
- c. Used for prophylaxis against arrhythmia in myocardial infarction
- d. All of the above

84. Amiodarone rarely causes torsades de pointes as

- a. it blocks K channels
- b. it blocks Ca channels

- c. It blocks Na channels
- d. All of the above

85. Regarding Class III all are true except

- a. It slows A-V conduction
- b. Prolongs QT
- c. Prolongs refractory period
- d. Increases intra-cardiac conduction velocity

86. Amiodarone

- a. Used in ventricular arrhythmias only
- b. Short elimination half life
- c. Causes pulmonary fibrosis
- d. Slows A-V nodal conduction by Na channel blockade

87. Class IV.....

- a. Ca channel blockers
- b. Used in supra-ventricular tachycardia
- c. contraindicated in ventricular tachycardia
- d. Rhythm control
- e. All except d

88. Digoxin is.....

- a. Na channel blocker
- b. K channel blocker
- c. Prolongs conduction in cardiac myocytes
- d. Management of atrial fibrillation

89.ECG بصفة الصوديوم في

90.ECG بصفة البوتاسيوم في

91.ECG بصفة الكالسيوم في

92. In addition to its use in treatment of schizophrenia, chlorpromazine is effective in .

- a. Reducing nausea and vomiting
- b. As an anti-hypertensive patient
- c. As an antihistaminic
- d. In treatment of depression

93. Which of the following may cause nephrogenic diabetes insipidus

- a. Haloperidol
- b. Lithium
- c. Fluxetil

d. Diazepam

94. A 36 Y old mail with bipolar disordered is treated with lithium ,among the following adverse effects,which is associated with lithium treatment??

- a. Agranulocytosis
- b. Neuroleptic malignant syndrome
- c. hypothyroidism
- d. Pseudodepression

95. The neuroleptic drugs,

- a. Block dopamine receptors in brain especially D2
- b. Have antiparkinsonian effect
- c. Most of them induce emesis
- d. Cause inhibition of prolactin release

96. All of the following side effects are observed in patients treated with anti-psychotic drugs except.

- a. Constipation
- b. Increased blood pressure
- c. Tardive dyskinesia
- d. Sexual dysfunction

97. Which of the following is an anti-psychotic drug with decreased incidence of extrapyramidal side effects

- a. Chlorpromazine
- b. Clozapine
- c. Fluoxetine
- d. Busperido

98. Chlorpromazine can cause postural hypertension due to block of alpha adrenergic receptors

- a. True
- b. False

99. Tardivedyskinesia occurring with Chlorpromazine is mainly due to

- a. Block of muscarinic receptors
- b. Block of dopaminergic receptors
- c. Hypersensitivity of dopamine receptors
- d. Block of serotonin receptors

100. Tardive dyskinesia occurring with Chlorpromazine could be managed by

- a. Reducing the dose of Chlorpromazine
- b. Use diazepam
- c. Replace with atypical antipsychotic drugs

- d. Give anticholinergic drugs
- e. C and d
- f. A,b, and c
- g. All of the above

101. Concerning Imipramine, all true except.

- a. Tricyclic antidepressant
- b. Elevate the mood, and improve mental alertness
- c. May cause sexual dysfunction and weight loss
- d. Has anticholinergic effect

102. P450 inhibitor :

- a. Imipramine
- b. Amitriptyline
- c. Fluoxetine
- d. Venlafaxine

103. Concerning bupropion, the true statement is .

- a. Is a SSRI
- b. May cause orthostatic hypotension
- c. Has no direct action on serotonin
- d. Could lead to serotonin syndrome

104. Tyramine-induced hypertension may occur with.

- a. MAO inhibitors
- b. SSRIs
- c. TCAs
- d. All of the above

105. Imipramine is a selective serotonin –norepinephrine reuptake inhibitor.

- a. True
- b. False

106. Combination between MAOIs and SSRIs is safe .

- a. True
- b. False

107. Venlafaxine selectively inhibits serotonin reuptake.

- a. True
- b. False




Answers.

1. A	23. b	45. e	67. E	89. QRS
2. B	24. D	46. a	68. D	90. QT
3. D	25. A	47. d	69. D	91. PR
4. D	26. C	48. d	70. C	92. A
5. D	27. B	49. A	71. C	93. B
6. B	28. d	50. B	72. b	94. C
7. B	29. d	51. D	73. a	95. A
8. A	30. B	52. A	74. B,c,d +	96. B
9. B	31. A	53. C	a + e	97. B
10. A	32. A	54. B	75. C, A	98. A
11. B	33. B	55. A	76. C	99. C
12. D	34. C	56. B	77. E	100. F
13. B	35. E	57. B	78. A, E	101. C
14. D	36. B	58. B	79. d	102. C
15. D	37. D	59. D	80. C	103. C
16. C	38. C	60. C	81. C	104. A
17. B	39. C	61. A	82. B	105. B
18. A	40. D	62. B	83. D	106. B
19. C	41. B	63. B	84. B	
20. B	42. A	64. D	85. D	
21. B	43. D	65. C	86. c	
22. E	44. D	66. B	87. e	
			88. d	

Essay:

- Mention the mechanism of action as an immunosuppressive drug of each.
 - Corticosteroids
 - Azathioprine
 - Mycophenolate
 - Sirolimus
 - Anti – CD25 drugs
 - Polyclonal Anti-thymocyte Globulin
 - Monoclonal Ab OKT3 muromonab – CD3
- Mention the uses and side effects of each :
 - Corticosteroids

- b- Cyclosporine
- c- Tacrolimus
- d- Azathioprine
- e- Mycophenolate
- f- Rapamycin
- g- Anti-lymphocyte Globulin
- h- Basiliximab & Daclizumab
- i- Monoclonal Ab OKT3 muromonab – CD3

3. Discuss briefly cytotoxic drugs classifications
4. Give an account on common toxicity of cytotoxic drugs
5. Explain the contro; of chemotherapy induced myelosuppression and nausea & vomiting
6. Give an account on each regarding uses , mechanism , and adverse effects :
 - a- Methotrexate
 - b- 6-Mercaptopurine
 - c- Fluorouracil (5-FU)
 - d- Vinblastin & Vincristine
 - e- Paclitaxel & Docetaxil
 - f- Etoposide
 - g- Doxorubicin
 - h- Bleomycin
 - i- Aromatase inhibitors
 - j- Anastrozole
 - k- Trastuzumab
 - l- Bevacizumab
7. Classify the drugs used in treatment of congestive heart failure
8. Classify the drugs used in reliving the symptoms of congestive heart failure
9. Classify the inotropic drugs
10. Classify the drugs used to decrease the cardiac load
11. Mention the drugs used to decrease the long-term mortality in CHF and discuss one of them
12. Discuss the beta blockers as one of the drugs used in CHF to decrease the mortality rate
13. Discuss the role of each of the following in heart failure.
 -  ACEIs
 -  ARBs
 -  Vasodilators

✚ Diuretics

✚ Beta blockers

14. Mention the mechanism of action of digoxin in treatment of heart failure
15. List the pharmacological actions of digoxin
16. Give the therapeutic uses of digoxin and its pharmacokinetics
17. Discuss the adverse effects of digoxin
18. Enumerate the factors predisposing digoxin toxicity
19. Discuss the drug interactions with digoxin
20. Describe the treatment of digitalis toxicity
21. Compare between the role of beta-adrenergic agonists and blockers in treatment of heart failure
22. Discuss the effects and indications of ACEIs in C.H.F
23. Enumerate four vasodilators used to decrease the cardiac load and their indications
24. Enumerate the mechanisms on which pharmacotherapy of hypertension is based
25. Classify the drugs used in treatment of hypertension
26. List the criteria of ideal antihypertensive drug
27. Mention the considerations for choice of initial antihypertensive monotherapy
28. Classify hypertension and drugs according to this classification
29. Discuss the role of diuretics in hypertension pharmacotherapy
30. Mention the advantages and disadvantages of diuretics in treatment of hypertension
31. Discuss the role of beta blockers in treatment of hypertension
32. Enumerate the mechanism of antihypertensive action of beta blockers
33. Discuss the role of Ca channel blockers in treatment of hypertension
34. Mention the mechanism of antihypertensive action of Ca channel blockers and their types
35. Discuss the role of vasodilators as antihypertensive drugs
36. Discuss the mechanism of action of ACEIs AND ARBs as antihypertensive
37. Enumerate the advantages of ACEIs and ARBs as antihypertensive
38. Mention the therapeutic uses of ACEIs and why drug of choice in HTN with diabetes
39. Classify the drugs used in cardiac dysrhythmia and mention the mechanism of action for each one
40. Mention the mechanism of action of class I antiarrhythmic drugs
41. Compare between class Ia and Ib antiarrhythmic drugs according to:

✚ example

✚ kinetics

✚ Mechanism of action

- ✚ ECG changes
- ✚ Therapeutic uses
- ✚ Adverse effect

42. Compare between class Ia AND class Ic antiarrhythmic drugs

43. Compare between class Ib and class Ic antiarrhythmic drugs

44. Discuss the following antiarrhythmic drugs:

- ✚ Class Ia
- ✚ Class Ib
- ✚ Class Ic

45. Give a note on the following anti-dysrhythmic drugs:

- ✚ Class II
- ✚ Class IV
- ✚ Class V

46. List the adverse effects of class III antiarrhythmic drugs

47. Give the pharmacological actions of class III antiarrhythmic drugs

48. Discuss the therapeutic uses of class III antiarrhythmic drugs

Discuss the pharmacokinetics of group III antiarrhythmic drugs

49. Give the mechanism of action of antiepileptic drugs

50. Discuss the classification of AEDs according their mechanism of action

51. Give a note on the pharmacokinetics drug interactions with AEDs

52. Mention the adverse effects of AEDs

53. Enumerate the acute dose dependent adverse effects of AEDs

54. Mention the idiosyncratic adverse effects of AEDs

55. Discuss the long term adverse effects of AEDs

56. Discuss the therapeutic consideration during AEDs taking

57. Classify antidepressant drugs

58. Give a note on the mechanism of action of tricyclic antidepressant drugs

59. Give the pharmacological actions of tricyclic antidepressant drugs

60. List the therapeutic uses of tricyclic antidepressant drugs

61. Discuss the adverse effects of tricyclic antidepressant drugs

62. Compare between the mechanism of action of tricyclic antidepressant and selective serotonin-NE reuptake inhibitors

63. Give the pharmacological actions of SSRIs

64. List the therapeutic uses of SSRIs

65. Explain the advantages and adverse effects of SSRIs

66. Discuss the drug interactions of SSRIs
67. Discuss the mechanism of action and therapeutic uses of MAOIs
68. Discuss the drug interactions of MAOIs
69. Compare between selective serotonin reuptake inhibitors and tricyclic antidepressant drugs.
- ✚ Mechanism of action
 - ✚ Pharmacological actions
 - ✚ Therapeutic uses
 - ✚ Adverse effects
70. Enumerate the pharmacological actions of antipsychotic drugs
71. Discuss three of the pharmacological actions of antipsychotic drugs
72. Explain the mechanism of action of antipsychotic drugs
73. Explain the following effects of antipsychotic drugs:
- ✚ Endocrine effects
 - ✚ Autonomic effects
 - ✚ Antiemetic effects
 - ✚ Extrapyramidal effects
74. List the therapeutic uses of antipsychotic drugs
75. Enumerate the side effects of antipsychotic drugs
76. Give a note on tardive dyskinesia as one of antipsychotic drugs adverse effects
77. Mention the advantages of atypical antipsychotic
78. List the disadvantages of atypical antipsychotic
79. Discuss the therapeutic uses of lithium
80. Enumerate the adverse effects of lithium
81. Discuss the mechanism of action of benzodiazepines
82. Discuss the pharmacokinetics of benzodiazepines
83. Explain benzodiazepines biotransformation
84. Enumerate the pharmacological actions of benzodiazepines
85. Give the pharmacological effect of benzodiazepines as:
- ✚ Sedatives
 - ✚ Hypnotics
 - ✚ Anesthetics
 - ✚ Anticonvulsants
 - ✚ Muscle relaxants
 - ✚ Their effect on respiration and cardiovascular functions
86. Give a note on the tolerance as a feature of sedative- hypnotics

87. List the therapeutic uses of benzodiazepines
88. Discuss three therapeutic uses of benzodiazepines
89. Mention the adverse effects of benzodiazepines
90. Explain the treatment of benzodiazepines toxicity
91. Give the mechanism of action and disadvantages of non-benzodiazepine sedative drug
92. List the advantages of non-benzodiazepine sedative
93. List the advantages of benzodiazepines on barbiturates as a sedative- hypnotics
94. Classify barbiturates
95. List the pharmacological actions of zolpidem and zaleplon

Alex School
Of
Medicine
(ASM)

Pathology

Match the following

1. B-lymphocytes	a. Medulla
2. T-lymphocytes	b. Lymphoid follicles
3. Macrophages around cords	c. Diffuse lymphoid tissue

4. Follicular hyperplasia is associated with T-cell activation

- a. True
- b. False

5. T-cell hyperplasia leads to decrease of germinal follicle size

- a. True
- b. False

6. Sinus histiocytosis occurs in lymph nodes draining cancer

- a. True
- b. False

7. The commonest cause of neoplastic lymph node disease is HL

- a. True
- b. False

8. HL = RS cells + inflammatory Cells + systemic manifestations

- a. True
- b. False

9. The peak incidence of HL is in infants

- a. True
- b. False

10. The virus that has been related to HL is

- a. HSV-1
- b. HSV-2
- c. EBV
- d. CMV

11. The Rye classification of HL is based upon the frequency of RS cells relative to inflammatory reactive elements

- a. True
- b. False

12. HL LP	a. Older age, lost architecture replaced by diffuse infiltration by neoplastic tissue + few lymphocytes + abundant RS cells/pleomorphic anaplastic variants
13. HL MC	b. Under 35, lost architecture replaced by mature lymphocytes with benign histiocytes + few RS cells
14. HL LD	c. Only one more common in women, cervical mediastinal supraclavicular, lacunar cells, collagen bundles
15. HL LP	d. More in males, lost architecture infiltration by neoplastic tissue + abundant RS cells, large number of eosinophils, plasma cells and benign histiocytes

16. Hodgkin's lymphoma was added to which of the following classifications of NHL

- a. Working formulation for clinical usage
- b. REAL
- c. WHO Classification
- d. Rye classification

Match.

17. Precursor B-Cell neoplasm	a. Mature T-cell
18. Precursor T-cell neoplasm	b. Immature B-cell
19. Peripheral B-cell neoplasm	c. Mature B-cell
20. Peripheral T-cell neoplasm	d. Immature T-cell

21. NHL is a non-tender lymphadenopathy

- a. True
- b. False

22. NHL can't spread to other organs

- a. True
- b. False

23. The diagnosis of NHL rests on

- a. H & E stained biopsy
- b. Increased serum creatinin levels
- c. High blood urea level
- d. Swelling of LNs

30. In African-type Burkitt's lymphoma the most common site is

- a. Bowel
- b. Retroperitoneal
- c. Ovaries
- d. Mandible & Maxilla

31. The hallmark of Sezary syndrome is

- a. Skin involvement
- b. Rise of serum ALT & AST
- c. Increase leukocyte count
- d. Bone marrow affection

32. The stain of amyloid when added to iodine and sulphuric added is

- a. Blue
- b. Black
- c. Grey
- d. Brown

33. All of the following is true about staining amyloid by H & E except

- a. Nuclei can be found
- b. Homogenous
- c. Eosinophilic
- d. Extracellular

Write (A) for HL and (B) for NHL for each of the following

24. Involvement of multiple LNs

25. Contiguous spread

26. No systemic manifestations

27. Presence of Reed Sternberg cells

28. Waldeyer's ring involved

29. Extranodal involvement

34. AL is produced by liver cells

- a. True
- b. False

35. All of the following are true about the physical properties of amyloid except :

- a. Grossly waxy firm homogenous and pale
- b. Histologically pale amorphous homogenous
- c. Branching fibrils in EM
- d. None of the above

36. Secondary generalized amyloidosis occurs in

- a. Liver
- b. Heart
- c. GIT
- d. Peripheral NS

37. One of the following is AA :

- a. 2ry generalized amyloidosis
- b. Heredofamilial amyloidosis
- c. 1ry amyloidosis
- d. Both A and B
- e. All of the above

38. One of following causes 1ry amyloidosis .

- a. TB
- b. Alkylosing spondylitis
- c. B- cell neoplasm
- d. Hodgkin lymphoma

39. Renal cell carcinoma causes

- a. 1ry amyloidosis
- b. 2ry amyloidosis
- c. Isolated organ amyloidosis
- d. Endocrine amyloidosis

40. All of the following is true about pathogenesis of amyloidosis in organs except :

- a. Narrowing vessels
- b. Atrophy
- c. Decrease permeability
- d. Edema

41. All of the following can be caused by amyloidosis except .

- a. Uremia
- b. Axonal degeneration
- c. Carcinoma
- d. Splenomegaly

42. Biopsy can be taken from all except .

- a. Rectum
- b. Gingiva
- c. Renal biopsy
- d. Liver

43. The 2ry amyloidosis is of good prognosis

- a. True
- b. False

44. Isolated organ amyloidosis is diffuse

- a. True
- b. False

45. Hemodialysis associated amyloidosis occurs in

- a. Kidney
- b. Heart
- c. Joints
- d. Eyes

46. Glycoprotein amyloidosis is ____ of all

- a. 5%
- b. 10 %
- c. 20 %
- d. 30%

47. Concerning pyogenic osteomyelitis, all true except

- a. More common in adults
- b. Boys are more susceptible than girls
- c. Mainly caused by klebsiella infection
- d. A & C

48. Most common route of infection in case of pyogenic osteomyelitis .

- a. Direct extension
- b. Direct inoculation
- c. Haematogenous
- d. None of the above

49. In case of direct spread of pyogenic infection ,the infection starts in the marrow cavity .

- a. True
- b. False

50. Acute osteomyelitis .a non-suppurative reaction occurs in the bone marrow .

- a. True
- b. False

51. Sequestrum .

- a. Rim of reactive bone surrounding the abcess
- b. Necrotic bone due to vascular thrombosis ,suppurative and ischemic injury
- c. Residual abscess surrounded by a rim of sclerotic bone
- d. None of the above

52. In infants less than 1 year ,the epiphysis may be affected, in case of pyogenic osteomyelitis .

- a. True
- b. False

53. Local complications of pyogenic osteomyelitis include .

- a. Amyloidosis
- b. Sinus formation
- c. Sepsic arthritis
- d. B & C

54. Potts disease .

- a. Tuberculosis of knees and hip
- b. Acute pyogenic infection
- c. Tuberculosis of the spine tuberculous spondylitis
- d. None of the above

55. Tuberculous osteomyelitis especially affects cervical vertebrae .

- a. True
- b. False

56. Tuberculous osteomyelitis is more destructive than pyogenic .

- a. True
- b. False

57. Tuberculosis of the small bones of the feet and hands .

- a. Potts disease
- b. Tuberculous dactylitis
- c. None of the above

43. Secondary osteoporosis is the commonest type of generalized osteoporosis.

- a. True
- b. False

44. The maximum bone density is reached at the 2nd decade of life.

- a. true
- b. false

45. The rate of bone loss is decreased with increased physical activity.

- a. true
- b. false

46. Blood levels of calcium, phosphorus and alkaline phosphatase are normal in uncomplicated cases of osteoporosis.

- a. True
- b. False

47. Concerning osteoma, all true except.

- a. Reactive bone growth rather than true tumor
- b. More common in males than females
- c. Arises from metaphysis of long bones
- d. B & C

48. Osteoid osteoma .

- a. arises from metaphysis of long bones, from the cortex
- b. arises from metaphysis of long bones, from the medulla
- c. arises from bones with intramembranous ossification

d. none of the above

49. Pain in case of osteoblastoma is difficult to localize.

- a. true
- b. false

50. Codemans triangle could be seen radiologically in.

- a. Osteoblastoma
- b. Osteoma
- c. Osteosarcoma
- d. All of the above

51. Concerning secondary bone tumors, all true except.

- a. Most common form of skeletal malignancy
- b. Pathway of spread is mostly haematogenous
- c. 70% occurs in long bones at metaphyseal region
- d. B & C

T/F (A- True, B-False)

52. Vasogenic cerebral edema that represents accumulation of water intracellularly in the brain is considered as one of the causes of elevated intracranial pressure

53. Transtentorial herniation may lead to fatal compression of vital respiratory center and Duret's haemorrhage

54. All the arterial supply and venous drainage of the brain has to pass through the subarachnoid space filled with CSF

55. Progression of Otitis media may result in Encephalitis

Choose the correct answer

56. Which of the following represent(s) sequel of elevated ICP

- a. Brain herniation
- b. Duret's haemorrhage
- c. Delayed closure of fontanelles in infants
- d. Vasomotor Paralysis
- e. A and d
- f. All of the above

57. Which of the following statements concerning compensatory hydrocephalus is correct?

- a. It occurs due to decreased absorption of CSF
- b. Volume of the CSF is increased
- c. May be caused by gliosis involving aqueduct
- d. None of the above

58. Choroid plexus papilloma may result in hydrocephalus mostly of which type?

- a. Hydrocephalus ex vacuo
- b. communicating Hydrocephalus
- c. Non communicating Hydrocephalus
- d. Compensatory Hydrocephalus

59. Most common cause of epidemic meningitides

- a. Pneumococci
- b. Neisseria meningitidis
- c. Haemophilus influenza
- d. E-Coli

60. Acute purulent meningitis is charac. By all of the following except.

- a. Raised ICP
- b. Increased protein level of CSF
- c. Normal sugar content of CSF
- d. More severe than viral meningitis

61. Leptomeningitis: inflammation of the leptomeninges + subdural space.

- a. True
- b. False

62. Leptomeningitis is caused only by infection.

- a. True
- b. False

63. Acute lymphocytic meningitis is usually caused by bacteria.

- a. True
- b. False

64. Concerning acute purulent meningitis, all true except.

- a. CSF is clear
- b. Increased polymorphs in the CSF
- c. Increased sugar content in the CSF
- d. A & C

65. Concerning aseptic meningitis, all false except.

- a. The infection is self limited
- b. Mainly caused by bacteria
- c. Glucose level is decreased in the CSF
- d. Decreased lymphocytes in the CSF

66. Chronic meningitis is characterized by decreased chloride content in the CSF.

- a. True
- b. False

67. Ischemic encephalopathy accounts for 80% of cerebrovascular diseases.

- a. true
- b. false

68. Brain infarction is more common in males than females.

- a. True
- b. False

69. Concerning cerebral atherosclerosis, the false statement is .

- a. Most common cause of brain infarct
- b. Affect the small vessels

c. Thrombosis caused by it occurs near the carotid bifurcation or basilar artery

- d. B & C

70. After 6 hours of infarction ,line of demarcation could be seen.

- a. True
- b. False

71. In brain infarction, cyst is formed after.

- a. 6-12 h
- b. 48-72 h
- c. Weeks
- d. None of the above

72. In embolic occlusion of cerebral vessels ,the onset is gradual and preceded by transient attacks.

- a. True
- b. False

Answers:

- | | | | | |
|--------|-------|-------|-------|-------|
| 1. B | 16. C | 31. A | 46. a | 61. b |
| 2. C | 17. B | 32. d | 47. c | 62. b |
| 3. A | 18. D | 33. c | 48. a | 63. b |
| 4. B | 19. C | 34. b | 49. a | 64. d |
| 5. A | 20. A | 35. b | 50. c | 65. a |
| 6. A | 21. A | 36. b | 51. c | 66. a |
| 7. .B | 22. B | 37. a | 52. B | 67. b |
| 8. .A | 23. A | 38. d | 53. B | 68. a |
| 9. .B | 24. B | 39. c | 54. A | 69. b |
| 10. .C | 25. A | 40. b | 55. A | 70. b |
| 11. A | 26. B | 41. a | 56. F | 71. c |
| 12. B | 27. A | 42. b | 57. B | 72. b |
| 13. D | 28. B | 43. b | 58. B | |
| 14. A | 29. B | 44. b | 59. B | |
| 15. C | 30. D | 45. a | 60. C | |

Essay:

1. Define Hodgkin's lymphoma and mention its incidence
2. Describe the pathogenesis of Hodgkin's disease
3. Mention the characteristic features of Hodgkin's lymphoma
4. Enumerate types of Hodgkin's lymphoma according to Rye classification and WHO one
5. Describe the diagnostic cell in Hodgkin's lymphoma (classic and non-classic type)
6. Describe the morphology of:
 - Hodgkin's lymphoma, lymphocytes predominance
 - Hodgkin's lymphoma, lymphocytic depletion
 - Hodgkin's lymphoma, nodular sclerosis
 - Hodgkin's lymphoma, mixed cellularity
7. Compare between:
 - Hodgkin's lymphoma, lymphocyte predominance and depletion
 - Hodgkin's lymphoma, nodular sclerosis and mixed cellularity
8. Discuss Hodgkin's lymphoma, nodular sclerosis
9. Describe the clinical features of Hodgkin's lymphoma
10. Discuss the Ann Arbor classification of Hodgkin's lymphoma
11. Describe the symptoms associated with Hodgkin's disease
12. Give a note on the prognosis of Hodgkin's lymphoma
13. Explain the REAL classification of lymphoid neoplasms
14. Describe the clinical picture of Non Hodgkin's lymphomas
15. Enumerate pathological complications of Non Hodgkin's lymphomas
16. Compare between Hodgkin's and Non Hodgkin's lymphomas
17. Give an account on Burkitt's lymphoma
18. List the pathogenic and etiologic factors in white cell neoplasms
19. Discuss the relationship between leukemia and lymphoma
20. Enumerate four causes for splenomegaly and give two examples for each one
21. Mention the infectious causes of splenomegaly
22. List the lymphohematogenous disorders responsible for splenomegaly
23. Mention three storage disorders can cause splenomegaly
24. Give two examples for immunologic-inflammatory conditions causing splenomegaly
25. Define congestive splenomegaly and mention its causes
26. Describe the gross and microscopic morphology of congestive splenomegaly

27. Give a short note on the splenic neoplasms
28. Talk about two cases in which the treatment is surgical removal of the Spleen
29. Discuss the pathogenesis of Hodgkin's lymphoma?
30. Compare between rye classification and WHO classification of Hodgkin's lymphoma?
31. What are different types of reed–Sternberg cell?
32. Compare between different types of Hodgkin's lymphoma?
33. Discuss Ann Arbor classification (staging system to HL and NHL)?
34. What are the complications of NHL?
35. Compare between Hodgkin's and non Hodgkin's lymphoma?
36. Compare between African and non African type of Burkitt's lymphoma?
37. What are the pathogenic factors of white cell neoplasia?
38. Discuss the relation between leukemia and lymphoma?
39. Discuss the different causes of splenomegaly?
40. Discuss the hypersplenism?
41. Define and classify amyloidosis
42. Describe the physical nature of amyloid deposit
43. Describe the chemical nature of amyloid substance
44. List the different types of systemic and localized amyloidosis
45. Describe the pathogenesis of primary systemic amyloidosis
46. Describe the pathogenesis of reactive systemic amyloidosis
47. Give a note on:
 - Primary systemic amyloidosis
 - Secondary systemic amyloidosis
48. Give a short note on:
 - Isolated organ amyloidosis
 - Endocrine amyloidosis
 - Amyloid of aging
49. Describe the pathologic effect and prognosis of amyloidosis
50. Discuss the amyloidosis in: kidney, spleen, liver, heart , peripheral nerves & GIT
51. Explain the isolated organ amyloidosis and discuss it in three different organs
52. Outline methods of diagnosis of amyloidosis
53. Discuss pyogenic osteomyelitis as regard:
 - a. Predisposing factors

- b. Routes of infection
- c. Commonest sites of affection
- d. Pathogenesis of acute & chronic types
- e. Clinical features & diagnosis
- f. Complications

54. Discuss Pott's disease

55. What are the complications of tuberculous osteomyelitis

56. What's tuberculous dactylitis

57. Enumerate metabolic bone diseases.

58. Define osteoporosis & mention its types.

59. Discuss the causes of 2ry generalized osteoporosis.

60. Discuss the factors that determine the total bone mass.

61. Give a short account on the clinical features & diagnosis of osteoporosis.

62. Give a short account on osteoma regarding: site, morphology & clinical features.

63. Compare between osteoma & osteoid osteoma regarding: site, morphology & clinical features.

64. Compare between osteoid osteoma & osteoblastoma.

65. Discuss the radiology & diagnosis of osteosarcoma.

66. Discuss the site & morphology of osteosarcoma.

67. Give a short account on 2ry osteosarcoma.

68. Soccer was Josh's favorite sport. As an energetic 11-year-old, there wasn't much that could slow him down. But as Josh gave it his all on the field, he began feeling intermittent pain in his knee. He started off with conservative treatment—rest and acetaminophen for the pain. But over the weeks that followed, Josh's discomfort intensified. Their first order of care was to conduct an X-ray and MRI to assess the condition of Josh's knee. It was a mass in the proximal left tibia—a tumor, 5.5 centimeters by 3.5 centimeters.

- i. What's your diagnosis? And how can you confirm it?

- ii. Mention the radiological features seen in this case.

69. Discuss the site, types & morphology of osteochondroma.

70. Discuss the site, types & morphology of chondroma.

71. Compare between solitary & multiple enchondroma.

72. Compare between: Giant cell tumor of bone & osteosarcoma.

73. Discuss the site, morphology & radiography of Ewing's sarcoma.

74. Give an account on metastatic tumors of the skeleton including types & sites of origin of the tumor.
75. A 17-year-old male presented with increasing pain in the left upper arm of approximately 3 months' duration and a recent onset of low-grade fever. On physical examination, there was some local tenderness and soft tissue swelling over the proximal and mid thirds of the left humerus. Plain radiograph shows a large ill-defined, destructive, diaphyseal intramedullary lesion with permeative pattern of bone. The lesion is associated with a soft tissue mass.
- What's your diagnosis?
 - Mention the morphology expected upon biopsy.
76. A 39-year-old female gave a 2-month history of increasing pain in her knee. There was no evidence of joint effusion. Laboratory work-up showed normal serum levels of calcium, phosphate and alkaline phosphatase. Plain radiograph demonstrated a well-defined, lytic lesion eccentrically located in the distal femoral epiphysis with subchondral and metaphyseal extension. There was associated focal thinning of the cortex.
- What's your diagnosis?
 - Mention the morphology expected upon biopsy.
77. Define increased intracranial pressure, and then classify the types of cerebral edema.
78. Discuss the causes of increased intracranial pressure.
79. Discuss the effects of increase intracranial pressure.
80. Compare between hydrocephalus with normal and raised CSF pressure.
81. Enumerate routes of entry of infectious organisms to the CNS.
82. List the causative agents in acute purulent meningitis.
83. Discuss the morphology of acute purulent meningitis.
84. Compare between acute purulent meningitis, acute lymphocytic meningitis & chronic meningitis regarding CSF contents.
85. Discuss the complications of meningitis.
86. Give an account on brain abscess regarding its etiology.
87. Give an account on brain abscess regarding its morphology & clinical features.
88. Enumerate the causes of cerebral ischemia.
89. Discuss the morphology of brain infarct at its different stages.
90. Compare between intracerebral and subarachnoid hemorrhage.
91. Give an account on the morphology of intracerebral hemorrhage.
92. Discuss subdural hemorrhage.

93. Classify CNS neoplasms.

94. Identify general features of brain tumors.

95. Discuss astrocytoma & the main gross morphological features.

96. Give an account on meningioma.

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Parasitology

MCQ:

- 1) The infective stage of human cysticercosis is .
 - a. Coracidium
 - b. Cysticercous bovis
 - c. Cysticercous cellulosae
 - d. Mature egg of taenia saginata
 - e. Mature egg of taenia solium
- 2) Cysticercosis can be produced by the following methods EXCEPT.
 - a. drinking of contaminate water with egg of taenia solium
 - b. when eggs of T.solium are carried back to the duodenum inside the human body
 - c. external autoinfection
 - d. ingestion of raw pork meat containing the larval stage
 - e. all are true
- 3) Cysticercosis primarily affects .
 - a. Liver
 - b. Brain
 - c. Muscles & subcutaneous tissue
 - d. Eyes
- 4) The specific immunological test for diagnosis of cysticercosis is.
 - a. ELISA
 - b. Agar double diffusion
 - c. Immunoelectrophoresis
 - d. A& B
 - e. B&C
- 5) Regarding the Echinococcus granulosus is.
 - a. Tapworm of dogs
 - b. Inhabits herbivores animals as an intermediate host
 - c. The man acts as an intermediate host
 - d. The causative agent of hydatid disease in man
 - e. All of the above
- 6) The most common organ affected by hydatid cysts is.
 - a. Liver
 - b. Lung
 - c. Brain
 - d. Bone
- 7) Osseous hydatid cyst is characterized by all of the following except .
 - a. Cyst is confined by dense fibrous tissue
 - b. Having irregular shape
 - c. Develops slowly within 2-10 years
 - d. The laminated layer is poorly developed
- 8) The damage produced by hydatid cyst of E.granulosus is mainly due to.
 - a. Allergic reaction
 - b. Mechanical compression
 - c. Superinfection
 - d. Dissemination of scolices into the circulation

9) The most diagnostic sign for unilocular hydatid cyst is.

- a. Presence of painless abdominal mass
- b. Enlargement at the base of the lung
- c. Presence of cystic abdominal mass with fluid felt by percussion
- d. Eosinophilia

10) The treatment of brain hydatid cyst should include.

- a. Surgical removal
- b. Albendazol
- c. Praziquantel
- d. A & B
- e. All of the above

1- e	2- d	3- c	4- e	5- e
6- a	7- a	8- b	9- c	10- b

Essay:

Cysticercosis:

- 1- Mention methods of infection of cysticercosis
- 2- Discuss pathogenesis of cysticercosis
- 3- Describe its clinical picture
- 4- Mention ways of diagnosis, treatment, and prevention of cysticercosis

Eichconacoccus granulossus :

- 1- Mention its habitat, geographical distribution, and morphology
- 2- Explain its life cycle

Hyatid disease.

- 1- Define
- 2- Give an account on its pathogenesis and its clinical picture
- 3- Mention the methods of infection
- 4- Enumerate its ways of treatment, prevention and diagnosis
- 5- Mention its prognosis

Toxocara

- 1) Adults of *spirometra mansonii* inhabit.
 - a. Small intestine of man
 - b. Large intestine of man
 - c. Small intestine of dogs
 - d. Large intestine of dogs
- 2) 1st intermediate host of *spirometra* is.
 - a. Pigs
 - b. Cows
 - c. Cyclops
 - d. Snails
- 3) The infective stage of *spirometra mansonii* is.
 - a. Eggs
 - b. Sparganum
 - c. Coracidium
 - d. Proceroid larva
- 4) Regarding sparganosis, man acts as.
 - a. 1st intermediate host
 - b. Definitive host
 - c. 2nd intermediate host
 - d. Reservoir host
- 5) Modes of infection with *spirometra* includes all of the following EXCEPT.
 - a. Drinking water containing Cyclops infected with plerocercoid larva
 - b. Eating raw tissues of frogs and water snakes containing plerocercoid larvae
 - c. Application of infected frog's tissues containing plerocercoid larvae as poultices on inflamed tissues
- 6) The usual site for affection in ocular sparganosis is.
 - a. subconjunctival
 - b. supraconjunctival
 - c. retroconjunctival
 - d. periconjunctival
- 7) Treatment of *spirometra* mainly depends on.
 - a. pharmacological therapy
 - b. surgical removal
 - c. physical therapy
- 8) In inoperable sparganosis, is given.
 - a. Albendazole
 - b. Mebendazole
 - c. Metronidazole
 - d. Praziquantel
- 9) The definitive host of *toxocara canis*.
 - a. Man
 - b. Cats
 - c. Dogs
 - d. B & C
- 10) All of the following is true about *toxocara* egg EXCEPT.
 - a. Dark brown in color
 - b. Have mammillated shells
 - c. Immature
 - d. 85 X 75 microns
- 11) Larva of *toxocara* primarily affects.
 - a. Liver
 - b. Eye
 - c. Skin
 - d. Brain

12) Larva migrans is:

- a. Migration of intestinal cystode larvae to extra-intestinal tissue in unnatural host
- b. Migration of extra-intestinal nematode larvae to intestinal tissue in unnatural host
- c. Migration of intestinal nematode larvae to extra-intestinal tissue their natural host
- d. Migration of intestinal nematode larvae to extra-intestinal tissue in unnatural host

13) The infective stage in VLM is:

- a. Rhabditiform larva
- b. Larvated egg
- c. Filariform larva
- d. Coracidium

14) Regarding visceral larva migrans, man acts as:

- a. Definitive host
- b. Paratenic host
- c. Reservoir host
- d. Intermediate host

15) The most prominent clinical presentation in VLM:

- a. Fever
- b. Ocular lesions
- c. Nephrosis
- d. Hapatomegaly

16) Treatment of VLM includes:

- a. Diethylcarbamazine
- b. Mebendazole
- c. A&B
- d. Albendazole

17) The infective stage of CLM is:

- a. Filariform larva
- b. Rhabditiform larva
- c. Mature larvated egg
- d. Plerocercoid larva

18) Treatment of CLM includes:

- a. Diethylcarbamazine
- b. Thiabendazole
- c. Calamine lotion
- d. B&C

Answers:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
c	c	b	c	a	a	b	d	c	b	a	d	b	b	d	c	a	d

True or false:

1. Adult worm of spirometra has a rosette-shaped uterus.
2. Spirometra are not normally a human parasite.
3. Eggs of diphylobothrium latum are smaller than those of spirometra.
4. larvated stage of toxocara doesnot undergo further development in humans.
5. Migration of intestinal nematode larvae to extra-intestinal tissue in unnatural host stimulates strongyloides stercoralis hyperinfection.

Answers:

1. F 2. T 3. F 4. T 5. F

Essay:

Spirometra mansoni .

- 1- Mention its morphology , geographical distribution and habitat
- 2- Explain its life cycle

Sparganosis .

- 1- Enumerate its modes of infection
- 2- Mention its clinical picture
- 3- Enumerate its ways of treatment , prevention and diagnosis

Toxocara canis & toxocara cati.

- 1- Give an account on its characters
- 2- Explain briefly larva migrans and its ways of prevention and treatment

Compare between visceral and cutaneous larva migrans

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Trichinella spiralis

MCQ:

1. One of the following parasites utilizes on host as both definitive & intermediate host.
 - a. Dracunculus medinensis
 - b. Wuchereria bancrofti
 - c. Trichinella spiralis
 - d. Echinococcus granulosus
2. The false statement about Trichinella spiralis is ,
 - a. man serves as a blind host for this parasite
 - b. as being aphasid worm, it lays eggs with polar plugs
 - c. transmitted to man by eating raw pigs meat
 - d. its larva can't encyst in the cardiac muscles
3. The nurse cells for Trichinella spiralis larvae are.
 - a. a. skeletal muscles
 - b. myocardium
 - c. smooth muscles
 - d. the intestinal cells
4. All the following events take place during the intestinal phase of trichinosis EXCEPT.
 - a. The larvae penetrate the intestinal cells and develop into adult worms
 - b. It represents the clinical incubation period of such disease
 - c. The accurate diagnosis during this phase can be obtained by muscle biopsy
 - d. The patient complaint simulating that of food poisoning
5. During the acute stage of trichinosis.
 - a. It is the stage of worm maturation
 - b. Peripheral eosinophilia doesn't occur.
 - c. The larvae migrate and penetrate muscle cells .
 - d. The cyst is formed around the larvae but calcification doesn't take place in this phase.
6. The chronic phase of trichinosis is characterized by.
 - a. It is the stage of convalescence
 - b. Examination of muscle biopsy in this phase reveals encysted larvae.
 - c. Muscular symptoms usually absent in this stage.
 - d. All of the above
 - e. A & b
7. About the diagnosis of Trichinella spiralis infection, one of the following statements is false.
 - a. The diagnostic stage is encysted larva
 - b. Blood investigations reveals rising eosinophilia
 - c. The intradermal test becomes positive in the stage of convalescence
 - d. Trichenella antigens can be diagnosed by flocculation tests & ELIZA
 - e. None of the above

8. Regarding *Trichinella* infection, the most accurate diagnostic test of the following is:

- a. Clinical diagnosis
- b. Rising eosinophilia
- c. Skin sensitivity test
- d. Muscle biopsy

9. The treatment of trichinosis during the acute phase should include:

- a. Albendazole
- b. Mebendazole
- c. Corticosteroids
- d. A+c
- e. B+c

10. The control of trichinella infection include all the following measures EXCEPT:

- a. Extermination of rodents from pig farms
- b. Proper cooking of pork
- c. Prevent defecation in soil
- d. Effective treatment of pork

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Answers.

1- c	2- b	3- a	4- c	5- c
6- d	7- c	8- d	9- e	10 -c

Essay:

1. Mention the geographical distribution , habitat , and adult morphology of *Trichinella Spiralis*
2. Explain the life cycle of *Trichinella Spiralis*
3. Enumerate the clinical picture of *Trichinella Spiralis* with each pathological stage according to the major steps in its life cycle
4. Give an account on diagnosis of *Trichinella Spiralis*
5. Mention the ways of treatment , prevention , and control of *Trichinella Spiralis*

Dracunculus medinensis

1. All of the following statements about *dracunculus medinensis* are false except.
 - a. One of the largest trematodes known
 - b. Cyclops act as intermediate host for them
 - c. Infection occurs when adults penetrate the skin
 - d. It is one of the subcutaneous filarial worms
2. All of the following statements about *dracunculus medinensis* are incorrect except.
 - a. Worms mature in the small intestine of cyclops
 - b. One of the smallest nematodes known
 - c. Its larvae have stichosome oesophagus
 - d. It's viviparous
3. All of the following statements about *dracunculus medinensis* are correct except.
 - a. It is also called guinea worm
 - b. The first strong sign of dracunculiasis is diarrhea
 - c. It belongs to phasmidae
 - d. One of the largest nematodes known
4. The infective stage of medina worm is
 - a. Adults
 - b. First stage larvae
 - c. Third stage larvae
 - d. None of the above
5. All of the following statements about filarial worms are correct except.
 - a. They need an arthropod vector
 - b. They are larviparous
 - c. They are segmented nematodes
 - d. They have separate sexes

6. All of the following statements about *wuchereria bancrofti* are correct except.

- a. Its microfilaria are sheathed with atail free of nuclei
- b. Mainly they have diurnal periodicity
- c. Adults release microfilaria into lymphatics

d. In its intermediate host it undergoes cyclodevelopmental transmission

7. Which of the following could act as intermediate host for *wuchereria bancrofti*

- a. Cyclops
- b. *Culex pipiens* mosquito
- c. Black fly

Essay

1. Mention the geographical distribution , habitat , and adult morphology of *Dracunculus Medinesis*
2. Explain the life cycle of *Dracunculus Medinesis*
3. Enumerate the clinical picture of *Dracunculus Medinesis*
4. with each pathological stage according to the major steps in its life cycle
5. Give an account on diagnosis of *Dracunculus Medinesis*
6. Mention the ways of treatment , prevention , and control of *Dracunculus Medinesis*

W.bancrofti

1. The pathological changes caused by *W.bancrofti* are mainly related to.

- a. Larva
- b. Dead worm
- c. Living worm
- d. Microfilaria
- e. A & C

2. can cause an abscess.

- a. Larva
- b. Microfilaria
- c. Living worm
- d. Dead worm

3. The inflammatory reaction due to *W.bancrofti* occurs in.

- a. Liver
- b. Lung
- c. Lymph nodes
- d. Spleen

4. The inflammatory process caused by *W.bancrofti* is characterized by all of the following EXCEPT.

- a. Fibrosis
- b. Obstruction
- c. Dilatation
- d. Complete resolution

5. The incubation period of elephantiasis is characterized by all of the following EXCEPT:

- a. Lasts for more than one year
- b. Transient lymphatic inflammation
- c. Elephantoid fever
- d. Malaise

6. The acute inflammatory stage of elephantiasis is characterized by all of the following EXCEPT:

- a. Lasts for few days
- b. Intense lymphatic inflammation
- c. Elephantoid fever
- d. Chylocele

7. Rupture of lymphatics around the intestine leads to:

- a. Chylocele
- b. chyluria
- c. chylothorax
- d. chylous ascitis
- e. chylous diarrhea

8. Microfilaria of W.bancrofti are characterized by:

- a. Begin to appear in the blood a year or more after infection
- b. Can be found after lymphatics are obstructed
- c. More in venous than in capillary blood
- d. More in blood from fingers than from ear lobe

9. All of the following are direct methods for lab diagnosis of W.bancrofti EXCEPT:

- a. Knott's technique
- b. Polycarbonate filter
- c. Qbc
- d. Idst

10. W.bancrofti can be treated by:

- a. albendazole
- b. diethylcarbamazine
- c. mebendazole
- d. ivermectin
- e. b&d

11. All of the following are true about

B.Malayi EXCEPT:

- a. Found mainly in the Malayan peninsula
- b. Inhabits all lymphatics of upper & lower limbs
- c. Its vector belongs to the genus Mansonia
- d. Cats & monkeys act as reservoir hosts

12. All are true about microfilariae of

B.Malayi EXCEPT:

- a. Sheathed
- b. They have a diurnal periodicity
- c. Nucleated tail
- d. Can't be detected in the peripheral blood

13. All are true concerning the clinical picture of Malayan filariasis EXCEPT:

- a. More severe than that of *W.bancrofti*
- b. Genital involvement & chyluria are rare
- c. Associated with tropical pulmonary eosinophilia
- d. Doesn't involve upper parts of arms & legs

Answers:

- | | | | |
|------|------|-------|-------|
| 1. e | 5. c | 9. d | 13. a |
| 2. d | 6. d | 10. b | |
| 3. c | 7. e | 11. b | |
| 4. d | 8. a | 12. b | |

Loa loa & Onchocerca volvulus

1. The false statement about loa loa worm is :
 - a. The adult worms live in subcutaneous tissues.
 - b. It is one of the larviparous nematodes
 - c. Maturation of the worm in subcutaneous tissues takes about one year
 - d. They utilize chrysops fly as intermediate host
 - e. None of the above
2. Regarding the microfilaria of loa loa, one of the following statements is true.
 - a. They are unsheathed with their tails full of nuclei
 - b. They have a nocturnal periodicity
 - c. At night, they become concentrated in lungs
 - d. Usually can't be detected in blood sample
 - e. None of the above
3. One of the following lesions is diagnostic to the loa loa 's infection.
 - a. Meningoencephalitis
 - b. Acute arthritis
 - c. River blindness
 - d. Calabar swelling of the subcutaneous tissue
4. The diagnosis of loa loa infection depends mainly on.
 - a. The demonstration of microfilaria in blood
 - b. Eosinophilia
 - c. The previous history
 - d. brain manifestations
5. The most frequent filarial worm causes CNS manifestations is.
 - a. *W.bancrofti*
 - b. *Brugia malayi*
 - c. *Loa loa*
 - d. *Onchocercus volvulus*

6. The filarial worm associated with blindness is.

- a. W.bancrofti
- b. Brugia malayi
- c. Loa loa
- d. Onchocercus volvulus

7. Knott's technique is a concentration method to detect the following microfilaria except.

- a. W.bancrofti
- b. Brugia malayi
- c. Loa loa
- d. Onchocercus volvulus

8. The false statement about the oncocerca volvulus worms is.

- a. Both adults and microfilariae present in the subcutaneous tissue
- b. Lifespan of female worms may reaches 15-18 years
- c. The intermediate host is simulum fly
- d. The microfilariae have no periodicity
- e. Microfilaria can be detected in blood film

9. Regarding Onchocerciasis , all are true EXCEPT.

- a. Onchocercoma is a subcutaneous nodules formed by male and female adults surrounded by fibrous capsule
- b. The parasitological incubation period (from infection till the

appearance of microfilaria) is commonly about 15-18 months

- c. The most serious complications are mediated by living microfilariae
- d. The drug of choice for treatment of this condition is Ivermectin
- e. All are true

10. All the following are considered as complications of onchocerciasis EXCEPT.

- a. Hanging groin
- b. Blindness
- c. Sowda
- d. Meningoencephalitis

11. Mazzotti test is a .

- a. Test used for diagnosis of O.volvulus
- b. The skin reaction is mediated by the body against dead adult worms killed by the drug
- c. Specific test for detection of ocular lesions of O.volvulus
- d. All of the above

12. The best diagnostic method for onchocerciasis is.

- a. Detection of characteristic microfilariae in blood film
- b. Skin sensitivity tests
- c. Mazzotti test
- d. The visualization of characteristic microfilariae in skin sample

Answers.

1- e	2- c	3- d	4- a
5- c	6- d	7- d	8- e
9- c	10 - d	11- a	12- d

Free living amoebae

- All of the following are true about *naegleria fowleri* except
 - Facultative parasite
 - Free living in soil
 - Belong to trypanosomes
 - Trophozoite occur in amoeboid & flagellate form
- As regard amoeboid form of trophozoite of *naegleria* except
 - Elongate
 - Contain contractile vacuoles
 - Not divide
 - Move by pseudopodium
- The amoeboid form of trophozoite of *naegleria* changes to cyst on contact with water at temperature of 27°C - 37°C
 - True
 - False
- The of *naegleria* are the only form which exists in human
 - amoeboid form of trophozoites
 - flagellate form of trophozoites
 - cysts
 - non of the above
- A patient represents with history of vague respiratory distress , fever , lethargy ,then there was signs of meningitis .now he is in a coma ..the most properly organism that can cause this clinical picture is
 - leishmania aethiopica*
 - leishmania tropica*
 - leishmania major*
 - naegleria fowleri*
- all of the following are true about infection with *naegleria fowleri* except
 - it cause primary amoebic meningoencephalitis
 - for direct diagnosis we examine CSF
 - amoeba are cultured on nutrient agar
 - amphotericin -B is the proper treatment
- As regard *Acanthamoeba* , all of the following are true except
 - Belong to sarcomastigophora
 - It found in amoeboid & flagellate form
 - Trophozoites move by acanthopodia
 - Live in stagnant water & dust

8. The cystic form of *Acanthamoeba* is responsible for tissue invasion in man
- True
 - False
9. As regard life cycle and pathogenesis of *Acanthamoeba* . the true statement is
- Acanthamoeba* presents in CSF
 - In AIDS patients the disease presents as acute encephalitis
 - Trophozoites and cysts don't appear in lesions
 - Tissue invasion is very rapid
10. For diagnosis of *Acanthamoeba* infection .the best method is
- Examine CSF
 - Blood culture
 - Brain biopsy
 - Skin snips

Answers :

- | | |
|------|-------|
| 1. C | 6. C |
| 2. C | 7. B |
| 3. B | 8. B |
| 4. A | 9. B |
| 5. D | 10. C |

Leishmania

1. All of the following are features of *Leishmania* except
- Move with the aid of Flagella
 - Sexual Reproduction
 - Belong to family Trypanosomatidae
 - Contain a Kinetoplast
2. All of the following are true about Amastigote except
- Red stained Large Nucleus
 - Oval or rounded body 2-3 Micron in length
 - Infective Stage in vertebrate host
 - Deep red or violet Dot like parabasal body
3. Which is the infective Stage of *Leishmania*
- Promastigotes
 - Amastigote
 - Phlebotomous
 - None of the above
4. All of the following cause Cutaneous *Leishmania* except
- L. Tropica*
 - L. Major*
 - L. Aethiopica*
 - L. Donovani*
5. All of the following is true regarding *Leishmania Tropica* except
- It's known as Oriental sores
 - The lesion is known as dry sore
 - Man to Man infection is quite common
 - Autoinfection is most common

6. One of the following is true regarding

Leishmania major

- a. Sores are known as wet sores
- b. Lesions Heal Slowly
- c. Main vector is Longips
- d. No Lymphatic Affection

7. Main Vector of **Leishmania Aethiopica** is

- a. Phlebotomous Papatasii
- b. Cyclops
- c. Phlebotomous Longips
- d. None of the above

8. Chronicity is a feature of

- a. L. Tropica
- b. L. Major
- c. L. Aethiopica

d. None of the above

9. All of the following is not a feature of

Leishmania Aethiopica

- a. No ulcer formation
- b. Has a immunological etiology
- c. An infection of desert Gerbil
- d. All of the above

10. The most common cause of

Mucocutaneous Leishmaniasis

- a. Leishmania Tropica
- b. Leishmania Donovanii
- c. Leishmania Major
- d. Leishmania Braziliensis complex

Answers.

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

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

Kala azar

1. **Kala azar is caused by :**
 - a. Leishmania aethiopica
 - b. Leishmania tropica
 - c. Leishmania major
 - d. Leishmania donovani
2. **Main method of infection of kala azar is**
 - a. Bite of infected sand fly
 - b. Blood transfusion
 - c. Nasal secretion
 - d. All of the above
3. **Infective stage in kala azar is**
 - a. Promastigote
 - b. Mastigote
 - c. Amastigote
 - d. None of the above
4. **All of the following are clinical picture in kala azar except**
 - a. High fever
 - b. Hepatomegaly
 - c. Skin lesion
 - d. Increased albumin
5. **Onset of kala azar disease is**
 - a. Sudden
 - b. Gradual
 - c. Both A & B
 - d. None of the above
6. **Which of those biopsy are more safe**
 - a. Bone marrow
 - b. Splenic
 - c. Liver
 - d. Lymph glands
7. **All of the following are concerning brucei gambiense except**
 - a. Incubation period from 2 – 3 years
 - b. It's a central African sleeping
 - c. No animal reservoir
 - d. None of the above
8. **Which of the following are true concerning brucei rhodesiense**
 - a. Incubation period from 2 – 3 years
 - b. It's a central African sleeping
 - c. No animal reservoir
 - d. None of the above
9. **The habitat of the terminal stage of African trypanosomiasis is**
 - a. Lymphatics
 - b. CNS
 - c. Liver
10. **All of the following characterized the morphology of African trypanosomiasis except**
 - a. Small terminal kinetoplast
 - b. Size from 15 – 40 micron
 - c. Has a central nucleus
 - d. None of the above

Answers

- 1- D
- 2- A
- 3- C
- 4- D
- 5- C
- 6- A
- 7- B
- 8- B
- 9- B
- 10- D

Essay:

- 1- Mr. magdy go to work 3 years in dakahlia, then he returned to his work in Cairo, after 5 months he complain from acute febrile episode of fever (sudden onset for few days then subside), then he take an anti pyretic drug , after one month his left leg start to develop edema and the overlying skin become red , then he noticed that his urine start to develop the white color
 - a. What is your diagnosis for this case?
 - b. What are the laboratory diagnoses to confirm your diagnosis?
 - c. Discuss the treatment you will recommend?
- 2- What are the clinically pathogenic stages of wuchereria bancrofti?
- 3- Discuss the life cycle of the wuchereria bancrofti, mention its different types?
- 4- Discuss the tropical pulmonary eosinophila syndrome?
- 5- How to prevent and control the infection of wuchereria bancrofti and brugia malayi?
- 6- Discuss the clinical picture of loaloa infection?
- 7- What is the laboratory diagnosis of case of loaloa infection?
- 8- Compare between the microfilaria of the four different types of filarial worms?
- 9- Compare between American and African type of onchocerca?
- 10- Discuss the clinical picture caused by dead micro filarial in onchocerca volvulus?
- 11- Discuss the laboratory diagnosis of case of infection by onchocerca volvulus?
- 12- How to treat and prevent a case of onchocerca volvulus?
- 13- Compare between naegleria fowleri and acanthamoeba ,, in (life cycle, clinical picture, diagnosis and treatment)
- 14- Compare between characteristics of sacrodina and mastigophora subphylum?
- 15- What are the methods of infections of cutaneous leishmaniasis of the old world?

- 16- Compare different types of leishmania cause cutaneous leishmaniasis of the old world?
- 17- How to diagnose of cutaneous leishmania of the new world and what are there different types?
- 18- How to diagnose a case of kala azar?
- 19- What are different types of salivarian trypanosomes?
- 20- Discuss the life cycle of African trypanosomes, and methods of infections?
- 21- How to diagnose and treat a case of sleeping sickness disease?

Trypanosomes

MCQ

1. Sleeping sickness is a parasitic disease characterized by all the following criteria EXCEPT:
 - a. Caused by African trypanosome species
 - b. The disease is characterized initially by acute fever followed by adenitis and brain manifestations
 - c. Transmitted by tse tse (glossina) fly
 - d. Winterbottom's sign is a diagnostic feature
 - e. All are true
2. The infective stage of trypanosoma in case of sleeping sickness transmitted mechanically by Glossina fly is.
 - a. Metacyclic trypomastigotes
 - b. Procyclic trypomastigotes
 - c. Bloodstream trypomastigotes
 - d. Epimastigotes
 - e. Amastigotes
3. The trepanosomal stage present inside liver cells in Chaga's disease is.
 - a. Metacyclic trypomastigotes
 - b. Procyclic trypomastigotes
 - c. Bloodstream trypomastigotes
 - d. Epimastigotes
 - e. Amastigotes
4. The diagnostic stage of trypanosomes in sleeping sickness is.
 - a. Metacyclic trypomastigotes
 - b. Procyclic trypomastigotes
 - c. Bloodstream trypomastigotes
 - d. Epimastigotes
 - e. Amastigotes
5. Which of the following trypanosomes can be transmitted transmammary.
 - a. Trypanosoma brucei rhodesiense
 - b. Trypanosoma brucei gambiense
 - c. Trypanosoma brucei brucei
 - d. Trypanosoma cruzi
 - e. All of the above

6. **Trypanosoma chancre is characterized by.**
- local subcutaneous inflammation caused by *T.cruzi* trypomastigotes at the site of inoculation
 - firm tender painful nodule appears early in chaga's disease
 - it is the first sign of sleeping sickness followed by fever and other manifestations
 - a & b
7. **Chaga's disease is characterized by the following EXCEPT.**
- Transmitted by triatomine bugs
 - Incubation period varies from 7 to 14 days
 - Caused by infection with *T.cruzi* metacyclic trypomastigotes
 - The drug of choice for treatment is suramine
 - All are true
8. **The acute form of Chaga's disease is characterized by.**
- Affects mainly adults and young adults
 - Esophageal smooth muscles are affected resulting in megaesophagus
 - Romana's sign is a unilateral local inflammatory reaction diagnostic for this form
 - Liver, spleen are affected but not the lymph nodes
9. **The following is true regarding the chronic form of Chaga's disease EXCEPT.**
- Tachycardia, arrhythmia and cardiac arrest are severe complications
 - Central and peripheral nerve ganglia are markedly affected
 - Dysphagia and constipation are two common symptoms
 - CT examinations reveal enlarged dilated esophagus and colon
10. **CSF sample from patient with sleeping sickness may show all the following findings EXCEPT.**
- Increased protein level
 - Cells present are more than 14/ml²
 - High concentration of IgM
 - Epimastigote form of the parasite
11. **The best indirect method for trypanosome *brucei gambiense* is.**
- IFAT (indirect fluorescent antibody technique)
 - ELISA
 - CATT (card agglutination trypanosomiasis test)
 - CFT (complement fixation test)
12. **The drug of choice for treatment of *T.gambiense* but not *T.rhodesiense* is.**
- Suramine
 - Eflornithine
 - Pentamidine isethionate
 - Melarsoprol

Answers:

1. b	2. c	3. e	4. c	5. d	6. c
7. d	8. c	9. a	10. d	11. c	12. b

Essay:

1. Mention the methods of infection by American trypanosomiasis.
2. Write an account on Romana's sign.
3. Compare between acute & chronic infections of American trypanosomiasis.
4. Discuss the lab diagnosis of American trypanosomiasis.
5. Compare between the life cycle of stercorarian & salivarian trypanosomes.

Malaria

MCQ

1. All of the following belongs to the phylum Sarcomastigophora EXCEPT.
 - a. Leishmania
 - b. Acanthamoeba
 - c. Plasmodium
 - d. Trypanosoma
2. All of the following is true about apicomplexa EXCEPT.
 - a. They have no definite organ of locomotion
 - b. They have an apical complex
 - c. It can be seen by LM
 - d. There is both sporogony & schizogony reproduction
3. Match each of the following diseases with its causative species.

1) P. vivax	a) malignant malaria
2) P. ovale	b) quartan malaria
3) P. malariae	c) oval malaria
4) P. falciparum	d) benign tertian malaria

4. All of the following is false about malaria

EXCEPT:

- a. The life cycle occurs in only one host
- b. It multiplies by schizogony in anopheles mosquitoes
- c. It's a pigment producing parasite of RBCs
- d. It multiplies by sporogony in man

5. All of the following species are prevalent in Egypt **EXCEPT:**

- a. P.vivax
- b. P.ovale
- c. P.ovale
- d. P.falciparum
- e. B & C

6. The infective stage of plasmodium is.

- a. Merozoite
- b. Schizont
- c. Sporozoite
- d. Hypnozoite

7. Man is infected by plasmodium through all of the following **EXCEPT:**

- a. Saliva of anopheles mosquitoes
- b. blood transfusion
- c. feces of anopheles mosquitoes
- d. Congenital malaria

8. Concerning the development of merozoites, the normal sequence is:

- a. Trophozoite>merozoite>ring>schizont>gametocyte
- b. Gametocyte>schizont>merozoite>trophozoite>ring
- c. Ring>trophozoite>schizont>merozoite>gametocyte
- d. schizont>gametocyte>ring>trophozoite>merozoite

9. All of the following is true about gametocyte **EXCEPT:**

- a. Formed after repeated schizogony
- b. Developed from merozoites invading rbc's
- c. It initiates the sexual cycle when taken by the male anopheles mosquitoes
- d. There are 2 types of gametocytes

10. In female anopheles mosquito,

- a. asexual reproduction of plasmodium occurs
- b. the macrogametocytes give rise to macrogametes by extraflagellation
- c. The ookinete penetrates the stomach wall
- d. The sporocysts are the infective stage

11. All of the following pathological changes occur during the course of malaria EXCEPT:

- a. Enlargement & tenderness of the liver
- b. Pigmentation of the bone marrow
- c. Iron-deficiency anaemia
- d. Enlargement of the spleen

12. In peripheral blood examination, we use thick drop for :

- a. Concentration
- b. Stained better
- c. Verifying species of malaria
- d. Both a & c

13. In peripheral blood examination, we use a thin film for :

- a. Concentration
- b. Seen better under the microscope
- c. Verifying species of malaria
- d. Both B & C

14. Direct diagnosis of malaria include all of the following except :

- a. PCR
- b. peripheral blood examination
- c. QPC
- d. RDT

15. Rapid diagnostic tests used for detection of parasite antigens in :

- a. liver
- b. saliva
- c. peripheral blood
- d. both b & c

16. Which is more specific :

- a. antibody detection techniques
- b. parasite antigens detection

17. In P. malarie, finding schizonts in peripheral blood means it is a fatal condition ()

18. In P. ovale, we may find any stage in peripheral blood and the condition is not fatal ()

19. Which has longer prepatent period.

- a. P. ovale
- b. P. vivax
- c. P. malariae
- d. P. falciparum

20. Which has fewer number of merozoites :

- a. P. ovale
- b. P. vivax
- c. P. malariae
- d. P. falciparum

21. Malarial relapse occurs in and due to presence of

22. Malarial pigment present in:

- a. vivax & ovale
- b. malaria
- c. falciparum
- d. all of the above
- e. none of the above

23. Ring stage fills 1/3 RBC in all malarial species except:

- a. P. ovale
- b. P. vivax
- c. P. malariae
- d. P. falciparum

24. Multiple infection is rare in.

- a. vivax & ovale
- b. vivax & malariae
- c. ovale & malariae
- d. ovale & falciparum
- e. vivax & falciparum

25. In ring stage, stippling appears early in.

- a. vivax & ovale
- b. vivax & malariae
- c. ovale & malariae
- d. ovale & falciparum
- e. vivax & falciparum

26. The late trophozoite stage is compact in all malarial species except.

- a. P. vivax
- b. P. ovale
- c. P. malariae
- d. P. falciparum

27. The late trophozoite stage is yellowish brown pigment in.

- a. P. vivax
- b. P. ovale
- c. P. malariae
- d. P. falciparum

28. The late trophozoite stage is seen in peripheral blood in all species except.

- a. P. vivax
- b. P. ovale
- c. P. malariae
- d. P. falciparum

29. The schizont is rosette shape in.

- a. P. vivax
- b. P. ovale
- c. P. malariae
- d. P. falciparum

30. Schizont contains 6–12 merozoites in.

- a. P. vivax
- b. P. ovale
- c. P. malariae
- d. P. falciparum
- e. both b & c

31. In the gametocyte stage, the RBCs are of normal size in.

- a. P. vivax
- b. P. ovale
- c. P. malariae
- d. P. falciparum

32. In the P. falciparum, the gametocyte is in shape

- a. oval
- b. spherical
- c. crescent
- d. none of the above

33. Adhesion phenomenon only present in.

- a. P. vivax
- b. P. ovale
- c. P. malariae
- d. P. falciparum

34. Duration of erythrocytic cycle is 48 hrs in all malarial species except.

- a. P. vivax
- b. P. ovale
- c. P. malariae
- d. P. falciparum

35. Old RBCs can be infected by.

- a. vivax
- b. malariae
- c. falciparum
- d. both a & b
- e. both b & d

36. If malarial infection occurs, we can use protective treatment ()

37. Suppressive guideline of treatment aim to.

- a. attack erythrocytic stages
- b. keep their no. low
- c. destruction of early stages in the liver
- d. both b & c

38. Schizonticidal drugs are more effective at.

- a. 6-20 days from infection
- b. 48 hrs after exo-erythrocytic cycle
- c. after cure to prevent relapsing
- d. both a & b

39. Which of the malarial species is resistant to chloroquine.

- a. P. vivax
- b. P. ovale
- c. P. malariae
- d. P. falciparum

40. Which drug used to prevent relapsing of malaria.

- a. combination therapy
- b. primaquine
- c. chloroquine
- d. both b & c

41. Which drug used to prevent resistance.

- a. combination therapy
- b. primaquine
- c. chloroquine
- d. both b & c

42. Quinine dihydrochloride is contraindicated when patient infected with.

- a. vivax & malaria
- b. vivax or malaria
- c. malariae & falciparum
- d. malariae or falciparum

Answers:

1. C	9. C	21. P. vivax - P.	32. c
2. C	10. C	ovale -	33. d
3. 1)d	11. C	hypnozoites	34. c
2)c		22. e	35. e
3)b	12. a	23. d	36. t
4)a	13. c	24. c	37. b
4. C	14. d	25. d	38. b
5. E	15. c	26. a	39. d
6. C	16. b	27. a	40. b
7. C	17. f	28. d	41. d
8. C	18. t	29. c	42. c
	19. c	30. e	
	20. c	31. c	

Essay:

- 1- Compare between the 4 species of malaria regarding:
 - a. Disease caused & complications
 - b. Morphology of infected RBCs & their age.
 - c. Morphology of ring & trophozoite.
 - d. Morphology of schizont & gametocyte.
- 2- Discuss pernicious syndromes.
- 3- Compare between relapse & recrudescence.
- 4- Write an account on black water fever.
- 5- Give an account on malarial paroxysms.
- 6- Give reason for: P. falciparum is considered the most dangerous species.
- 7- Discuss the mode of infection of malaria.
- 8- Give an account on exo-erythrocytic cycle.
- 9- Give an account on erythrocytic cycle.
- 10- Discuss the means of diagnosis of malaria.
- 11- Discuss the modes of prevention of transmission of malaria.
- 12- Mention the treatment of uncomplicated non-resistant malaria.
- 13- Mention the treatment of pernicious syndromes.
- 14- Mention the treatment of uncomplicated resistant P. falciparum.

- 15- Mention the treatment of severe resistant malaria.
- 16- Discuss how to control malaria.
- 17- Discuss the chemoprophylaxis of malaria.

Toxoplasma

MCQ

1. Regarding the toxoplasma, which of the following statements is false?

- a. Man usually acts as a dead-point host in the life cycle of this organism
- b. Pseudocyst of toxoplasma is an infective stage for cats that contains rapidly dividing organisms
- c. Infection to cats can occur by both cysts and Pseudocyst but not oocysts
- d. The enteric cycle of toxoplasma takes place only inside the cats
- e. None of the above

2. All of the following are true regarding the oocyst of toxoplasma EXCEPT.

- a. This stage is produced only by sexual cycle inside the cats
- b. When the cat ingests this stage , sporozoites release to enter the intestinal cells of cat initiating the enteric cycle
- c. This stage can infect man
- d. It passes after maturation in the cat's feces and contains two sporocysts with 4 sporozoites inside each sporocyst.

3. Children who come in contact with contaminated soil are liable to be infected by.

- a. Oocysts of toxoplasma gondii
- b. Cysts of toxoplasma gondii
- c. Pseudocysts of toxoplasma gondii
- d. None of the above
- e. All of the above

4. Proper cooking of meat is effective to kill the following stage/s of toxoplasma gondii.

- a. Oocysts
- b. Cysts
- c. Pseudocysts
- d. None of the above
- e. All of the above

5. Pregnant woman infected with toxoplasma can transmit the disease to her baby by which of the following stages.

- a. Oocysts
- b. Cysts
- c. Pseudocysts
- d. None of the above
- e. All of the above

6. Regarding the exo-enteric cycle of toxoplasma, one of the following statements is true.

- a. It takes place only inside the intermediate hosts
- b. Tachyzoites are released in the intestine, invade the blood & lymph to reach distant organs
- c. The toxoplasma multiply in this cycle by endodyogony
- d. Both cysts & pseudocysts can initiate this cycle

7. Regarding toxoplasmosis, which of the following statements is false.

- a. When the host immunity develops against toxoplasma infection, the tachyzoites transform to bradyzoites
- b. Cysts can be detected in the tissues of recovered patients after many years
- c. Pregnant females should be treated by spiramycin
- d. High IgG titer in adults is suggestive to active infection

8. All the following is true about Sabin syndrome.

- a. It represents the classical manifestations of toxoplasma infection in newborns
- b. It is represented by : hydrocephalus, choroidiretinitis, convulsions and cerebral calcification
- c. Mental retardation is the common fate of those who survive.
- d. All are true

9. Which of the following statements is true regarding the diagnosis of toxoplasma.

- a. The most preferable method is Sabin-Feldman test
- b. Smear from the lymph nodes of previously infected person after treatment may reveal tissue cysts of toxoplasma
- c. Positive IgG is a diagnostic method in congenital toxoplasmosis but not in acquired one
- d. Adult toxoplasmosis is easily diagnosed clinically

10- To prevent congenital toxoplasmosis , the infected pregnant woman should receive :

- a. Daraprim alone
- b. Daraprim + folic acid
- c. Spiramycin alone
- d. Combination of all the above

Answers:

1- c	2- d	3- a	4- b	5- d
6- c	7- d	8- d	9- b	10- c

Essay:

- 1- What is the method of infection of toxoplasma?
- 2- How to diagnosis a case of toxoplasma?
- 3- Mention how to treat and prevent a toxoplasma?

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Microbiology

1. The mode of transmission of *Yersinia pestis* is.
 - a. Flea bites.
 - b. Inhalation of infected dust.
 - c. Droplet transmission from man to man.
 - d. All of the above.
2. A characteristic feature of *Yersinia pestis* is.
 - a. It's not capsulated.
 - b. It shows a bipolar staining.
 - c. It shows darting motility.
 - d. It is strictly aerobe.
3. Sputum samples of patients with pneumonic plague are inoculated in animals by.
 - a. SC injection.
 - b. IV injection.
 - c. Application on their nasal mucosa.
4. *Brucella* is characterized by.
 - a. Being intracellular.
 - b. Leading to chronicity.
 - c. Being strict aerobes.
 - d. All of the above.
5. In man, brucellosis can lead to abortion of pregnant women.
6. Brucellosis is a zoonotic disease.
7. All of the following are true about *B. anthrax* except :
 - a. Aerobe
 - b. Motile
 - c. Large gram positive
 - d. Spore is central
8. All of the following are characters of the culture of *B. anthracis* :
 - a. Anaerobe
 - b. Liquefy gelatin
 - c. Ferments CHO with acid production only
 - d. Catalase positive
9. The characteristic shape of *Bacillus anthracis* colonies in the culture is :
 - a. Circular
 - b. Black
 - c. Granular
 - d. Medusa shaped
10. All of the following are antigen factors except
 - a. Polypeptide cell wall
 - b. Polypeptide capsule
 - c. Polysaccharide of cell wall
 - d. Protein toxins
11. Anthrax spore is formed inside the cell
 - a. True
 - b. False
12. Pulmonary anthrax is hemorrhagic pneumonia
 - a. True
 - b. False
13. If injected to mice and guinea pigs, *B. anthrax* are numerous in the liver :
 - a. False
 - b. True
14. *B. anthrax* is hemolytic :
 - a. True
 - b. False

15. Anthrax are resistant to penicillin .

- a. True
- b. False

16. One of the following is true .

- a. There are three antigenic types of anthrax
- b. Primary disease of carnivores
- c. Ciprofloxacin is a first line treatment
- d. Spores can be destroyed by heating up to 120

17. About the morphology of Anthrax .

- a. Spore is the same size as the vegetative
- b. Gram negative
- c. Polysaccharide capsule
- d. Non capsulated in tissues

18. Non sterilized shaving brush is a source of pulmonary anthrax .

- a. True
- b. False

19. All of the following are true about clostridia except

- a. Anaerobic
- b. Gram negative
- c. Natural habitat is soil
- d. Spore bearers

20. All of the following are true as regard clostridia tetani except

- a. Slender rod , motile

- b. Strict anaerobe
- c. Saccharolytic
- d. Liquefy gelatin

21. Clostridia tetani spore is sensitive to penicillin and clindamycin

- a. True
- b. false

22. As regard pathogenesis of clostridia tetni all of the following are true except

- a. Invasive organism
- b. Need anaerobic environment
- c. Produce powerful neurotoxic exotoxin
- d. Source of infection may be soil

23. All of the following are true about tetanospasmin except

- a. Powerful neurotoxic exotoxin
- b. Stimulate the release of glycine
- c. Cause hyperreflexia
- d. May result in death

24. Growth of clostridia tetni on cooked meat broth lead to blackening of the medium

- a. true
- b. false

25. As regard prevention of tetanus , all of the following are true except

- a. Toxoids are not available for active immunization
- b. Administration of penicillin is useful
- c. Prophylactic use of antitoxin is of value
- d. Contaminated wounds should have a proper care

26. Individuals wounded with a previous history of vaccination by tetanus toxoids 5 or more years ago shouldn't receive a booster dose

- a. True
- b. False

27. As regard tetanus antitoxin, antitetanic serum is better than human tetanus immunoglobulin

- a. True
- b. False

28. All of the following are true about Clostridium perfringens except

- a. Gram positive bacilli
- b. Motile
- c. Grow best on CHO containing media
- d. Optimum temperature for growth is 37°C

29. Growth of in litmus milk medium results in the stormy clot reaction

- a. Clostridia tetni
- b. Clostridium perfringens
- c. Clostridium difficile
- d. Pityrosporum orbiculare

30. Is the cause of zones of opacity on egg yolk medium after growth of Clostridium perfringens

- a. Alphatoxin
- b. Hyaluronidase
- c. Collagenase
- d. DNase

31. As regard prevention of Clostridium perfringens infections, the true statement is

- a. Antitoxin sera for passive prophylaxis is reliable
- b. Toxoids is available for active immunization
- c. Antibiotics are of no value
- d. Depends mainly on cleaning of contaminated wounds

32. Clindamycin and ampicillin have been most incriminated in pseudomembranous colitis that caused by

- a. Clostridia tetni
- b. Clostridium perfringens
- c. Clostridium difficile
- d. Pityrosporum orbiculare

33. Treatment of Clostridium difficile may include all of the following except

- a. Metronidazole
- b. Vancomycin
- c. Clindamycin
- d. Discontinuing of ampicillin

34. Dermatophytes which adapted typically to human host are called

- a. Geophilic
- b. Anthropophilic
- c. Zoophilic
- d. None of the above

35. Dermatophytes that primarily inhabit the soil are termed

- a. Geophilic
- b. Anthropophilic
- c. Zoophilic
- d. None of the above

36. Which of the following dermatophytes aren't commonly found living on soil

- a. Geophilic
- b. Anthropophilic
- c. Zoophilic
- d. None of the above

37. All of the following encountered dermatophytes are both micro& macro candidia except

- a. Microsporum
- b. Trichophyton
- c. Epidermophyton
- d. All of the above

38. Which of the following dermatophytes aren't fusiform in shape

- a. Microsporum
- b. Trichophyton
- c. Epidermophyton
- d. All of the above

39. Which of the following fungi infect hair are characterized by gray patches in the childhood

- a. Tinea fovea
- b. Tinea capitis
- c. Microsporum
- d. Trichophyton tonsuosa

40. Which of the following fungi infect hair are characterized by hair loss & scar formation

- a. Tinea fovea
- b. Tinea capitis
- c. Microsporum
- d. Trichophyton tonsuosa

41. All of the following concerning tinea pedis are true except

- a. Affect mainly toes & toenails
- b. Symptoms are erythema & fissuring
- c. Difficulty to treat
- d. None of the above

42. All of the following are symptoms of tinea pedis except

- a. Extensive scaling
- b. Fissuring
- c. Erythema
- d. All of the above

43. The best culture media for tinea

- a. McConkey agar with antibiotics
- b. Blood culture
- c. SDA with antibiotics
- d. None of the above

44. Best treatment of tinea include

- a. Keratinolytic agent
- b. Remove of the outer layer of skin
- c. Applying of lotions
- d. All of the above

45. The parvoviruses are

- a. DNA viruses
- b. RNA viruses
- c. Double stranded DNA viruses
- d. Single stranded RNA viruses

46. The infection with parvoviruses is common in

- a. Adults
- b. Childhood
- c. Both a & b
- d. Non-of the above

47. The parvoviruses can be transmitted by

- a. The respiratory system
- b. Blood transfusion
- c. From mother to fetus
- d. All of the above

48. The principal target of human parvovirus B19 is

- a. The epithelial cells of the respiratory system
- b. The central nervous system
- c. The erythroid lineage
- d. The R.B.C.s

49. The site of viral replication of the parvoviruses.

- a. Bone marrow
- b. Leukocytes
- c. The neural cells
- d. Non-of the above

50. Erythema Infectiosum is caused by

- a. Parvoviruses
- b. Polyomaviruses
- c. Cytomegaloviruses
- d. All of the above

51. Transient aplastic crisis is caused by polyomaviruses

- a. True
- b. False

52. Infection with parvoviruses during pregnancy may result in

- a. Hydrops fetalis
- b. Fetal death
- c. Both a & b
- d. None of the above

53. Parvovirus isolation is used to detect infection

- a. True
- b. False

54. The most sensitive test to detect parvovirus DNA in serum is

- a. Blood culture
- b. Serology
- c. Molecular techniques
- d. All of the above

55. Vaccine is now available against human parvoviruses

- a. True
- b. False

56. Polyoma viruses are

- a. Enveloped viruses
- b. Icosahedral viruses
- c. Double stranded DNA viruses
- d. RNA viruses

57. BK viruses causes

- a. Cystitis
- b. Nephropathy
- c. Renal allograft dysfunction
- d. All of the above

58. JC virus is the cause of

- a. Progressive multifocal leukoencephalopathy
- b. Renal dysfunction
- c. Myocardial infarction
- d. All of the above

59. Polyomaviruses can be detected by all the following except

- a. PCR
- b. IF
- c. N.A. probes
- d. blood culture

60. Roboviral infections in rodents need the participation of arthropod vectors

- a. true
- b. false

61. Transmission of roboviral infections to human may occur through

- a. Direct contact with rodent excreta
- b. Inhalation of dust containing rodent excreta
- c. Both a & b
- d. None of the above

62. Treatment of roboviral infections is supportive with

- a. Ribavirin
- b. Acyclovir
- c. Rimantadine
- d. Amantadine

63. Most roboviral infections result in

- a. Pernicious anemia
- b. Jaundice
- c. Liver disease

d. Hemorrhagic fever

64. The target cells of roboviruses are

- a. R.B.C.s
- b. Blood platelets
- c. Endothelial cells of small blood vessels
- d. Both b & c

65. The common clinical features of hemorrhagic fever caused by roboviruses are

- a. Fever & muscular pain
- b. Sore throat & purpura
- c. Nasal & uterine bleeding
- d. None of the above
- e. All of the above

66. The term "slow viral infections" refers to

- a. The rate of progress of the disease
- b. The rate of growth of the virus
- c. Both a & b
- d. None of the above

67. Slow viral infections are characterized by

- a. Short incubation period
- b. Long incubation period
- c. Good prognosis
- d. Acute course of the disease

68. Visna virus infecting sheep can cause

- a. Progressive paralysis
- b. Paraplegia
- c. Total paralysis & death
- d. All of the above

69. Sub-acute sclerosing pan-encephalitis is caused by

- a. Paramyxovirus
- b. Parvovirus
- c. Defective measles virus
- d. None of the above

70. Prionoses are characterized by

- a. Dementia
- b. Ataxia
- c. Both a & b
- d. None of the above

71. Microscopically, prionoses are characterized by

- a. Neurons show spongiform degeneration
- b. Amyloid plaque formation
- c. Inflammation & fever
- d. Both a & b

72. PrP is a host coded protein carried on the short arm of chromosome number

- a. 12
- b. 15
- c. 20
- d. 11

73. Scrapie isoform PrP differ from the PrP in

- a. Conformational secondary structure of protein
- b. Amino acid sequence
- c. Both a & b
- d. None of the above

74. Scrapie isoform PrP is resistant to

- a. Radiation
- b. Formaldehyde
- c. Proteases
- d. All of the above

75. Bovine spongiform encephalopathy

- a. Is called "mad cow disease"
- b. Is reported in cattle fed with meat & bone based food
- c. Is an example of the prion diseases
- d. All of the above

76. Kuru is a progressive fatal cerebellar ataxia present in Asian tribes

- a. True
- b. False

77. Transmission of CJD disease occurs through

- a. Serum derived products
- b. Contaminated pituitary derived hormones
- c. Surgical instruments
- d. Grafts
- e. All of the above

78. The arbovirus cycle includes

- a. The vertebrate host
- b. The arthropod
- c. The virus
- d. All of the above

79. The vertebrate host of arbovirus can be

- a. Mammals
- b. Birds
- c. Snakes
- d. All of the above
- e. None of the above

80. The vector of the arbovirus is

- a. Mosquitoes
- b. Birds
- c. Snakes
- d. All of the above

81. Both male & female of culex mosquito feed on blood

- a. True
- b. False

82. The primary arbo-viral multiplication occurs in

- a. The mosquito's salivary glands
- b. The human liver
- c. The mosquito's midgut cells
- d. Both a & b

83. The secondary viral multiplication occurs in

- a. The arthropod's salivary glands
- b. The midgut cells
- c. Both a & b
- d. None of the above

84. The extrinsic incubation period needed for the arthropod to be infectious is around

- a. 3-4 days
- b. 12-14 days
- c. 4 weeks
- d. 3 months

85. All the arboviruses are RNA viruses

- a. True
- b. False

86. The clinical symptoms of the diseases caused by arboviruses may be

- a. Skin rash & polyarthrititis
- b. Encephalitis
- c. Hemorrhagic fever
- d. All of the above

87. A patient is suffering from hemorrhage at the pyloric end of the stomach, jaundice & proteinuria. These symptoms may be for

- a. Dengue fever
- b. West Nile fever
- c. Yellow fever
- d. Both a & b

88. The symptoms of the dengue fever are

- a. Muscle pain
- b. Joint pain
- c. Lymphadenopathy
- d. All of the above

89. Rift valley fever virus can be transmitted through

- a. Culex mosquito bite
- b. Respiratory tract
- c. Both a & b
- d. None of the above

90. VZV causes as primary disease and as recurrent form

91. All about herpes is true except.....

- a. It has single serotype
- b. Transmitted by direct contact
- c. Person gets zoster only once
- d. Can be isolated from vesicular fluid in cell culture

92. Regarding VZV, It becomes latent in

- a. Dorsal root ganglia
- b. B Lymphocytes
- c. T lymphocytes
- d. Erythroid lineage

93. The most common complication of zoster is

- a. Encephalitis
- b. Pneumonia
- c. Post herpetic neuralgia
- d. Multiple Myeloma

94. The most important pathogen affecting renal transplants is

- a. VZV
- b. CMV
- c. EBV
- d. HHV-6

95. Assessment of viral load of CMV by

- a. Quantitative PCR
- b. Qualitative PCR
- c. ELISA
- d. IHAT

96. IgG determination implicates activity of CMV (True or false)

97. Regarding CMV

- a. Heterophile positive
- b. Gancyclovir is the drug of choice
- c. usually asymptomatic
- d. Can be transmitted congenitally
- e. all except A

98. CMV exists in latent state within

- a. Osteoblasts
- b. Chondrocytes
- c. Leukocytes
- d. RBCs

99. The agent of infectious mononucleosis is

- a. VZV
- b. CMV
- c. HHV-6
- d. EBV

100. EBV is transmitted mainly by

- a. Blood
- b. Organ transplants
- c. Saliva
- d. Intrauterine infection

101. Regarding EBV all are true except

- a. Associated with Burrkitt's lymphoma
- b. Remains latent in B lymphocytes
- c. Heterophile negative
- d. T cells are the atypical lymphocytes seen in Blood smear

102. The most sensitive means of detecting EBV is

- a. Blood smears
- b. Serology
- c. PCR and NA probes
- d. ELISA

103. Sixth disease is caused by

- a. HHV-6
- b. HHV-7
- c. HHV-8
- d. HHV-1

104. The target cell of HHV-6 is

- a. B lymphocyte
- b. T lymphocyte
- c. RBCs
- d. Leukocytes

105. The primary target organ of HHV-7 is

- a. Liver
- b. Lung
- c. Salivary gland
- d. Brain

106. KSHV is

- a. HHV-1
- b. HHV-6
- c. HHV-7
- d. HHV-8

- Match the correct statement from each column to the corresponding answer:

107.	Env gene	a. Genes coding for group antigens
108.	Pol gene	b. Genes coding for envelope glycoproteins
109.	Onc gene	c. Genes coding transformation mediators
110.	Gag gene	d. Genes coding for reverse transcriptase enzyme

111. All of the following is true regarding retroviral replication except.

- Proviral DNA is integrated into host cell nucleic acid by integrase enzyme.
- Viral coded proteins are then formed during host cell replication.
- Host cell coded reverse transcriptase is the key enzyme in retroviral replication.
- New virions are formed and bud off the host cell to infect others.

112. All retroviruses are cytolitic except epsilon virus. T/F giving reasons.

113. AIDS can lead to all of the following except.

- Persistent forms of common infections.
- Opportunistic infections such as cryptococcal meningitis.
- Direct oncogenic effect leading to tumors such as kaposi's sarcoma.
- Persistent generalized lymphadenopathy.

114. All of the following is true regarding HIV except.

- P24 is one early marker used to diagnose HIV infection.
- It contains the pol, env and gag genes.
- Reverse transcriptase, protease and integrase are three important enzymes coded by HIV nucleic acid.
- It is one of the dsRNA viruses.

115. Fuzeon inhibits.

- Reverse transcriptase enzyme.
- Fusion of HIV with host cell receptors.
- Integration of proviral DNA into host genome.
- None of the above.

116. Chronicity of HIV infection is attributed to.

- Neutralizing antibodies can clear the infection.
- Envelope change due to genomic variation.
- Being cytolitic to macrophages and immune depletion.
- All of the above.

117. Acute retroviral syndrome is characterized by all of the following except.

- a. Positive serum P24.
- b. The patient is highly infectious due to high viral load.
- c. It resembles infectious mono-nucleosis with difficult diagnosis.
- d. The patient is seropositive.

118. During the first degree immune deficiency, the CD4 count reaches.

- a. >1000 cell/mm³
- b. 500-1000 cell/mm³
- c. 200-500 cell/mm³
- d. <200 cell/mm³

119. The test best used to screen blood for HIV is.

- a. P24
- b. Serology and antibody detection
- c. Viral antigen detection by PCR
- d. None of the above

120. HIV can be transmitted by all of the following methods except.

- a. Blood transfusion.
- b. Intranatal.
- c. Through saliva and breast milk.
- d. Among homosexuals.

T/F:

121. HIV genome can replicate independent from the host cell replication cycle.

122. Viral envelope is virus-derived.

123. Dendritic cells facilitate HIV transport into lymphoid cells.

124. Lymph node size regression after persistent generalized lymphadenopathy is a good prognostic sign.

125. HAART can cure HIV completely

126. Rabies virus are

- a. Helical shaped
- b. Glycoprotein spike
- c. Single stranded DNA
- d. All of the above

127. Rabies virus found ,ainly in human in

- a. Blood
- b. Lymphocyte
- c. CSF of brain
- d. Salivary secretion

128. Incubation period of rabies disease is

- a. 4-8 days
- b. 4-8 weeks
- c. 4-8 months

129. Short prodrome phase characterized

by

- a. Convulsive seizures
- b. Hydrophobia
- c. Abnormal sensation around wound
- d. All of the above

130. Acute neurologic phase

characterized by

- a. Convulsive seizures
- b. Hydrophobia
- c. Abnormal sensation around wound
- d. All of the above

131. Coma phase characterized by

- a. Convulsive seizures
- b. Hydrophobia
- c. Abnormal sensation around wound
- d. All of the above

132. In cytopathology diagnosis

- a. Negri bodies
- b. More accurate & rapidly technique
- c. Neutralization test with specific antisera
- d. Ab develop quickly after vaccination

133. In detection of rabies

- a. Negri bodies
- b. More accurate & rapidly technique
- c. Neutralization test with specific antisera
- d. Ab develop quickly after vaccination

134. Viral isolation

- a. Negri bodies
- b. More accurate & rapidly technique
- c. Neutralization test with specific antisera
- d. Ab develop quickly after vaccination

135. Serology vaccination

- a. Negri bodies
- b. More accurate & rapidly technique
- c. Neutralization test with specific antisera
- d. Ab develop quickly after vaccination

136. Human diploid cell vaccine

characterized by

- a. Grow in chick embryo
- b. First alternative vaccine
- c. Has a low potency per dose
- d. Concentrated by ultrafiltration with B-propolacose

137. Duck embryo vaccine

- a. Grow in chick embryo
- b. First alternative vaccine
- c. Has a low potency per dose
- d. Concentrated by ultrafiltration with B-propolacose

138. Nerve tissue vaccine

- a. Grow in chick embryo
- b. First alternative vaccine
- c. Has a low potency per dose
- d. Concentrated by ultrafiltration with B-propolacose

139. Live attenuated virus vaccine

- a. Grow in chick embryo
- b. First alternative vaccine
- c. Has a low potency per dose
- d. Concentrated by ultrafiltration with B-propolacose

Answers:

- | | | | |
|-------|-------|-----------------------------|------------|
| 1. D | 32. C | 63. d | 93. C |
| 2. B | 33. C | 64. d | 94. B |
| 3. C | 34. B | 65. e | 95. A |
| 4. D | 35. A | 66. a | 96. False |
| 5. F | 36. C | 67. b | 97. E |
| 6. T | 37. C | 68. d | 98. C |
| 7. B | 38. A | 69. c | 99. D |
| 8. A | 39. C | 70. c | 100. C |
| 9. B | 40. A | 71. d | 101. C |
| 10. A | 41. C | 72. c | 102. C |
| 11. B | 42. D | 73. a | 103. A |
| 12. A | 43. C | 74. d | 104. B |
| 13. B | 44. D | 75. d | 105. C |
| 14. B | 45. a | 76. b | 106. D |
| 15. B | 46. b | 77. e | 107. b |
| 16. D | 47. d | 78. d | 108. d |
| 17. A | 48. c | 79. d | 109. c |
| 18. B | 49. a | 80. a | 110. a |
| 19. B | 50. a | 81. b | 111. c |
| 20. C | 51. b | 82. c | 112. F-HIV |
| 21. B | 52. c | 83. a | 113. C |
| 22. A | 53. b | 84. b | 114. D |
| 23. B | 54. c | 85. a | 115. B |
| 24. A | 55. b | 86. d | 116. B |
| 25. A | 56. c | 87. c | 117. D |
| 26. B | 57. d | 88. d | 118. C |
| 27. B | 58. a | 89. c | 119. B |
| 28. B | 59. d | 90. chickenpox-
shingles | 120. C |
| 29. B | 60. b | 91. c | 121. F |
| 30. A | 61. c | 92. a | 122. F |
| 31. D | 62. a | | 123. T |
| | | | 124. F |
| | | | 125. F |

126.	B	130.	B	134.	C	138.	C
127.	D	131.	A	135.	D	139.	A
128.	C	132.	A	136.	D		
129.	C	133.	B	137.	B		

Essay:

1. Mention different forms of plague and discuss the lab diagnosis of one of them.
2. Enumerate the virulence factors of *Yersinia pestis*.
3. How to prevent and control Plague?
4. What's meant by Prozone phenomenon?
5. Enumerate the lab tests used to diagnose a case of brucellosis.
6. Discuss the morphological & cultural characters of *B. anthracis*
7. What are the virulence factors?
8. Discuss the pathogenesis of anthrax
9. What are the commonest forms in man?
10. Discuss the lab diagnosis of *B. anthracis*
11. What are the preventive measures & the treatment
12. About *Clostridia tetani* give short notes about
 - Habitat
 - Morphology
 - Culture
 - Biochemical Characters
 - Resistance
 - Serotyping
 - Pathogenesis
 - Toxins
 - Diagnosis
 - Prevention
 - Treatment
13. About *Clostridia perfringens* give short notes about
 - Habitat
 - Morphology
 - Culture
 - Biochemical Characters
 - Typing
 - Resistance
 - Virulence factors
 - *C. perfringens* diseases
 - Diagnosis
 - Prevention
 - Treatment

14. Give short notes about clostridium difficile
15. Classify mycosis
16. Enumerate agents of superficial mycosis and discuss one of them
17. Compare between microsporum and trichophyton
18. List common clinical infections of dermatophytes
19. Describe infections involving hair and hair follicles
20. Describe infections involving nail and nail bed
21. Compare between grey-patch ringworm and black-dot ringworm
22. Give an account on tinea pedis in athlete's foot
23. Talk about collection of specimens in a case of dermatophytosis infection
24. Give a short account on methods of lab diagnosis in a case of dermatophytosis infection
25. Describe the direct microscopy as a method of identification of a ringworm or dermatophytosis
26. Describe the culture as a method of identification of a ringworm or dermatophytosis
27. Give an account on treatment of dermatophytosis
28. Discuss the lab diagnosis of a case of pityriasis versicolor
29. Give an account on the clinical types of pityriasis versicolor
30. Give the treatment of pityriasis versicolor mycosis
31. Describe parvovirus, its transmission and its target
32. Give an account on the clinical presentations that parvoviruses can cause
33. Describe the lab diagnosis of parvovirus
34. Describe polyomavirus structure
35. Give an account on the pathogenesis of polyomavirus
36. Give the lab diagnosis of polyomavirus and the epidemiology
37. Compare between parvovirus and polyomavirus according to:
 - ✚ Structure
 - ✚ Clinical syndromes
 - ✚ Lab diagnosis
38. Describe the pathogenesis of infection by varicell zoster virus
39. Describe the clinical findings in a case of infection by varicell zoster and give the way of transmission
40. Give a note on the difference between the two different clinical findings of varicell zoster infection
41. Describe the lab diagnosis and treatment of varicell zoster infection case
42. Mention the route of infection of CMV
43. Describe the clinical picture in CMV case in immunocompetent and immunocompromised hosts
44. Discuss the lab diagnosis of CMV

45. Give a note on the treatment of CMV
46. Discuss the lab diagnosis of EBV
47. Give the clinical findings and way of transmission of EBV
48. Describe the pathogenesis of EBV infection
49. Give a note on:
 - 🚩 Human herpes virus 6
 - 🚩 Human herpes virus 7
 - 🚩 Human herpes virus 8
50. Compare between CMV and EBV
51. Illustrate the replication of HIV.
52. Discuss the structure of the genome in HIV.
53. Mention modes of transmission of HIV.
54. Give an account on the provirus.
55. Discuss the treatment of HIV.
56. Give an account on pediatric AIDS.
57. Mention the objectives of HIV testing.
58. Discuss briefly the lab diagnosis of HIV.
59. Mention the importance of HIV antigen or N.A detection.
60. Give an account on the final stage of HIV infection.
61. Give an account on the 1st infection of HIV.
62. Give an account on asymptomatic chronic infection of HIV.
63. Give an account on the stage of chronic constitutional disease in HIV infection.
64. Discuss the general characteristics of arboviruses, giving examples.
65. Point the triad needed for arboviruses cycle.
66. Give an account on yellow fever.
67. Give an account on Dengue fever.
68. Give an account on Rift Valley fever.
69. Discuss the pathophysiology of arboviral hemorrhagic fevers, giving examples.
70. Give examples of slow viral infection in humans.
71. Enumerate the characteristics of slow viral infections.
72. List examples of prion diseases in humans and animals.
73. Discuss diagnosis of prionoses.
74. Discuss the prevention of rubella virus.
75. Identify the clinical forms of rubella virus infection.
76. Discuss the lab diagnosis of rubella virus.

77. Discuss the fates & complications of measles.

78. Plan the prevention & control of Rubeola virus.

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