

Pathology

3

Workbook

Answers

2010

Unit 1

1. Which of the following is due to a failure of the bone marrow to form red blood cells.
 - a. insufficient number of red blood cells
 - b. decreased amount of haemoglobin within the 1RBC
 - c. nutritional anaemia
 - d. aplastic anaemia**
 - e. alteration in shape of red blood cells
2. Red blood cells that are smaller than normal are called
 - a. normocytic
 - b. microcytic**
 - c. macrocytic
 - d. hypochromic
3. **Extrinsic** / **intrinsic** factor functions to bind with vitamin B12 in ingested foods.
4. **Haemorrhagic** / **haemolytic** anaemia is an anaemia due to the destruction of blood cells.
5. An increased size and activity of the spleen is called splenomegaly. T / F
6. Describe the function of erythropoietin _____
to stimulate the bone marrow to increase the rate of red blood cell production _____
7. The average amount of haemoglobin within a red blood cell is tested by which of the following tests
 - a. full blood count
 - b. haematocrit
 - c. mean cell volume
 - d. mean cell haemoglobin**
8. Polycythemia rubra vera is a type of **primary** / **secondary** polycythemia.

9. The process of producing new platelets is called **thrombopoiesis / thrombopoietin**.
10. Which of the following is not a stage of haemostasis.
- a. vascular spasm
 - b. platelet plug formation
 - c. blood clotting
 - d. scar tissue formation
11. In vasoconstriction of a blood vessel, the lumen to become **smaller / larger**.
12. Identify the cells in the bone marrow that form the platelets. **megakaryocytes**
13. Platelet **adhesion / aggregation** is the process of the platelets attaching to the walls of the damaged blood vessels.
14. Blood clotting occurs in a process with **three / five** stages.
15. Haemophilia **A / B** occurs due to a deficiency of clotting factor VIII.
16. Passing blood into the faeces is seen as
- a. bleeding during teeth brushing
 - b. haematemesis
 - c. melena
 - d. haemarthrosis
17. Hypovolemic shock can be caused by many factors, including
- a. loss of whole blood - as in bleeding (externally or internally) from trauma
 - b. loss of blood plasma (as in burns that form blisters and ooze fluid)
 - c. loss of extracellular fluid (such as in diarrhoea or vomiting)
 - d. all of the above
18. Which of the following is not a sign or symptom of hypovolemic shock
- a. reduced cardiac output (leading to hypotension and circulatory insufficiency)

- b. bradycardia (decreased heart rate)
- c. pallor, restlessness and decreased urine output

Unit 2

1. Which of the following is not a branch of the arch of the aorta
 - a. brachiocephalic
 - b. left common carotid
 - c. left subclavian
 - d. superior vena cava
2. A sphygmomanometer is used to measure **temperature** / **blood pressure**.
3. In a normal blood pressure of 120 / 80 mm Hg, which figure is the systolic measurement.
 - a. 120
 - b. 80
 - c. neither of the above
4. A blood pressure reading of (140 / 95 mm Hg) is described as **hypertension** / **hypotension**.
5. Orthostatic hypotension causes the patient to faint when rising from a sitting or lying position to standing. T / F
6. Which of the following is not a description of hypertension
 - a. mild hypertension
 - b. moderate hypertension
 - c. severe hypertension
 - d. gross hypertension
 - e. significant hypertension
7. Which chamber of the heart has the greatest thickness of cardiac muscle in the myocardium.
 - a. left atrium
 - b. right atrium
 - c. left ventricle

- d. right ventricle
8. There are no implications to the kidneys from cardiovascular hypertension. T/F
9. **Renin** / **angiotensin** converting enzyme converts an inactive plasma protein called angiotensinogen into angiotensin I.
10. Which of the following is not a mechanism by which angiotensin II raises blood pressure.
- a. vasoconstriction of the efferent arterioles
 - b. generalised peripheral vasoconstriction
 - c. inhibition of the release of aldosterone
 - d. stimulation of the release of antidiuretic hormone
 - e. stimulation of the thirst centre of the hypothalamus
11. Varicose veins are due to the incompetence of the valves within the vein. T/F
12. DVT's usually affect the **sedentary** / **active** individual.
13. Which of the following is not a part of Virchow's triad.
- a. changes in the wall of the blood vessel
 - b. changes in the health of the individual
 - c. changes in the blood flow
 - d. changes in the composition of the blood
14. A stroke is more technically referred to as a **cerebral** / **pulmonary** embolism.
15. **Ischaemia** / **infarction** is characterised by a lack of blood passing to a tissue or organ.
16. Atherosclerotic lesions are defects in the tunica **intima** / **media** of arteries.
17. Foam cells are formed from **monocytes** / **lymphocytes**.
18. Which of the following major risk factors for atherosclerosis can not be changed.

- a. heredity
- b. cigarette smoking
- c. high blood pressure
- d. high levels of saturated fat in the diet

19. Describe why the pain of angina pectoris occurs on exercise but relieves on rest.

At rest, there is a reduced requirement for oxygen and nutrients so there may be adequate blood passing the plaque to supply the tissue. In activity however, the heart muscle tissue requires more oxygen and nutrients and therefore the amount of blood that passes the lesion is not great enough and so the area supplied by that vessel becomes ischaemic.

20. Which of the following is described as paleness of the skin due to the lack of blood.

- a. pain
- b. pallor
- c. pulseless
- d. parasthesia
- e. paralysis
- f. perishing with cold

21. Raynaud's phenomenon is a strong vasoconstriction of the coronary arteries.

T / F

22. Berry aneurysms are common at bifurcation of arteries.

T / F

23. The spleen is located in the upper

left / right

 portion of the abdomen.

24. Describe why splenic rupture without capsular rupture is more dangerous than a splenic rupture with associated rupture of the capsule.

If the spleen ruptures without the capsule also rupturing, then the bleeding will be into the space between the capsule and the organ. This gradually stretches and weakens the capsule, eventually rupturing one to two weeks post injury. This is more dangerous as it may occur in a non traumatic setting and the patient will be unaware that they have ruptured the spleen.

Unit 3

1. Which valve is located between the right atrium and right ventricle.

a. tricuspid valve

b. bicuspid valve
c. aortic valve
d. pulmonary valve
2. The

visceral

 /

parietal

 pericardium directly surrounds the heart.
3. The blood flowing through the left side of the heart is

oxygenated

 /

deoxygenated

.
4.

Pericarditis

 /

endocarditis

 is diagnosed by the presence of a friction rub that is heard on cardiac auscultation.
5. Pericardial tamponade may be due to a rupture of the wall of the

ascending

 /

descending

 aorta.
6. Which of the following is the most commonly associated with coronary artery blockage.
a. circumflex artery
b. right coronary artery
c. right marginal branch

d. left anterior descending artery
7. The pain of angina pectoris may be described as
a. chest pain that is usually located behind the sternum
b. a tight band around the chest

c. either of the above

d. neither of the above
8. In an ECG, The P wave denotes

a. atrial depolarisation

b. atrial repolarisation
c. ventricular repolarisation

- d. ventricular depolarisation
9. Describe why a stress ECG might be performed in assessing angina pectoris_____
- _____ to challenge the heart by increasing the demands placed on it to show any lesions that may occur in the coronary circulation of other heart structures.
10. Myocardial infarction is the death of the myocardial cells due to lack of blood. T/F
11. The pain of a heart attack commonly refers to which of the following dermatomes
- a. C1 - C4
 - b. T1 - T4
 - c. L1 - L4
 - d. S1 - S4
12. Complications following a myocardial infarction are due to the
- a. scar tissue formed as a result of healing the damaged cells of the myocardium
 - b. disruption of the blood flow through the heart during the myocardial infarction
 - c. exacerbation of the stress response from the myocardial infarction
 - d. all of the above
 - e. none of the above
13. The pain of **angina pectoris** / myocardial infarction is not relieved by rest.
14. The great saphenous / **brachial** vein is commonly used for a coronary artery bypass.
15. Due to increased blood pressure, the muscle tissue of the left ventricle increases in a process called left ventricular hypertrophy / hyperplasia.
16. Which of the following is a type of heart failure
- a. bilateral heart failure
 - b. congestive heart failure
 - c. collective heart failure

17. **Left / right** sided heart failure causes pulmonary oedema.

18. Which if the following is a cause of arrhythmia.

- a. electrolyte disturbance
- b. infection
- c. hormonal imbalance
- d. alterations in pH
- e. all of the above**
- f. none of the above

19. Which of the following is caused by multiple areas of the conduction system discharging impulses at the same time.

- a. bradycardia
- b. tachycardia
- c. palpitations
- d. fibrillation**

20. The mitral valve is located on the **left** / right side of the heart.

21. Heart valve **stenosis** / **incompetence** allows regurgitation of blood into the previous heart structure.

22. Episodic effects of waking up at night gasping for breath is called

- a. dyspnoea on exertion
- b. orthopnea
- c. paroxysmal nocturnal dyspnoea**

23. Auscultation of the heart is listening to the heart via a stethoscope.

T / F

24. **Acute** / **subacute** bacterial endocarditis affects healthy heart valves.

25. A condition of patent foramen ovale allows deoxygenated blood entering the right atrium to pass through the foramen ovale into the left atrium instead down into the right ventricle.

T / **F**

Unit 4

1. Which of the following is not a granulocyte
 - a. neutrophil
 - b. eosinophil
 - c. basophil
 - d. monocyte**

2. The T cells are formed in the bone marrow and pass to the thymus gland to mature.

3. If the APC is a macrophage then the helper T cell is stimulated to become a **TH1/Th2**.

4. A decreased number of all types of white blood cells is defined as **leukopenia** / **leukocytosis**

5. Lymphangitis is
 - a. inflammation of lymphatic vessels**
 - b. inflammation of lymph nodes
 - c. inflammation of lymph nodules

6. Lymphoedema is due to obstruction to lymphatic flow. T / F

7. Leukemia occurs when there is an excessive production of
 - a. white blood cells**
 - b. red blood cells
 - c. platelets

8. **Acute** / **chronic** lymphocytic leukaemia tends to affect children more than adults.

9. Which of the following is not a common feature of leukaemia
 - a. anaemia
 - b. easy bleeding
 - c. poor immunity
 - d. reduction in size of lymph nodes**

- e. enlargement of bone marrow
10. **Hodgkin's** **Non-Hodgkin's** lymphoma may be associated with infection with the Epstein Barr virus.
11. Which of the following classifications of Hodgkin's lymphoma indicates multiple lymph node involvement on either aspect of the diaphragm without involvement of other structures.
- a. stage I
 - b. stage II
 - c. stage III
 - d. stage IV
12. **Non-Hodgkin's** / **Hodgkin's** lymphoma commonly affects older individuals.
13. Multiple myeloma is a malignant lesion of a plasma cell located within bone marrow. T / F
14. Bence Jones proteins are formed from the **light** / **heavy** chain portion of antibodies.
15. Anaphylactic reactions are a type of
- a. type I hypersensitivity reaction
 - b. type II hypersensitivity reaction
 - c. type III hypersensitivity reaction
 - d. type IV hypersensitivity reaction
16. Both mast cells and basophils are able to release histamine. T / F
17. Atopic means that an allergic hypersensitivity is not genetically inherited. T / F
18. The allergens that people may be exposed to include
- a. airborne allergens
 - b. contacted allergens
 - c. ingested allergens
 - d. all of the above

e. none of the above

19. Diagnosis of suspected allergies may occur via assessing the blood levels of

a. IgA

b. IgD

c. IgE

d. IgG

e. IgM

20. In anaphylaxis, histamine causes

a. vasoconstriction

b. bronchoconstriction

c. both vasoconstriction and bronchoconstriction

d. neither vasoconstriction nor bronchoconstriction

21. The natural killer cell performs antibody mediated cytotoxic immune responses in

a. type II hypersensitivity reactions

b. type III hypersensitivity reactions

c. type IV hypersensitivity reactions

22. Systemic lupus erythematosus causes unique signs and symptoms that are different from all other conditions, meaning that SLE is easy to diagnose.

T/F

23. SLE might cause a butterfly rash on the

a. face

b. chest

c. back

24. Diagnosis of SLE might include a blood test to detect ANA antibodies.

T/F

25. Myasthenia gravis is an autoimmune condition in which antibodies are formed against normal receptors for

- a. acetyl choline
- b. dopamine
- c. noradrenalin

26. Signs and symptoms of myaesthesia gravis include all of the following except

- a. muscle weakness
- b. fatigue
- c. hypertrophy of skeletal muscles

27. Which of the following affects the facet joints in the spine, leading to characteristic postural changes

- a. scleroderma
- b. ankylosing spondylitis
- c. rheumatoid arthritis
- d. diabetes mellitus (type I)

Unit 5

1. Which of the following may cause a common cold
 - a. rhinoviruses
 - b. respiratory syncytial virus
 - c. para-influenza virus
 - d. any of the above
 - e. non of the above

2. Rhinorrhea is an increased nasal secretion. T/F

3. Cells infected by a virus are destroyed by **exocytosis** / phagocytosis.

4. The most contagious time in a common cold is the first 3 days / **weeks** after onset of symptoms.

5. The length of infection in a common cold is approximately 7 days. T/F

6. Describe why antibiotics are not recommended for treating a common cold _____
the common cold is caused by a virus and so will not respond to antibiotics

7. Which of the following types of influenza is most involved in infecting humans
 - a. type A
 - b. type B
 - c. type C

8. Myalgia is defined as muscle / **eye** pain.

9. On average the length of infection of influenza is **shorter** / longer than that of a common cold.

10. Infection or inflammation of the vocal cords is
 - a. pharyngitis
 - b. tonsillitis
 - c. laryngitis

d. epiglottitis

11. An abscess of the tonsils is a collection of fluid such as pus within the tonsil.

☐ T / ☐ F

12. A ☐ **productive** / ☐ **non-productive** cough produces sputum is upon coughing.

13. Croup most commonly occurs in

☐ a. young children or babies

b. teenage children

c. adults

d. elderly adults

14. The cough involved in croup has a characteristic sound that is often described as a

☐ a. seal barking

b. owl hooting

c. cat miaowing

d. cow mooing

15. Fluid within sinuses ☐ **will** / ☐ **will not** be evident on an x ray of the sinuses.

16. Bronchiolitis is due to a ☐ **virus** / ☐ **bacterium** causing disease in the bronchioles.

17. Dyspnoea is difficulty in ☐ **breathing** / ☐ **coughing**.

18. A complication of bronchiolitis is destruction of lung tissue that lasts through life.

☐ T / ☐ F

19. Bronchiectasis is a ☐ **dilation** / ☐ **narrowing** of the bronchi.

20. The cough of bronchiectasis is usually not productive.

☐ T / ☐ F

21. Which of the following is an investigation used in the investigation and diagnosis of bronchiectasis

a. gastroscopy

b. colonoscopy

c. bronchoscopy

22. Pneumonia may be caused by

a. virus

b. bacteria

c. parasites

d. any of the above

e. none of the above

23. Which of the following affects an entire lobe of the lung

a. bronchopneumonia

b. lobar pneumonia

c. segmental (lobular) pneumonia

24. Inflammatory changes in pneumonia cause the alveoli of the area to fill with **fluid / air**.

25. Bronchopneumonia usually causes a productive cough with

a. yellow sputum

b. green sputum

c. either yellow or green sputum

d. neither yellow nor green sputum

26. Which of the following complications of pneumonia does not affect the heart

a. meningitis

b. pericarditis

c. endocarditis

27. Tuberculosis causes mild symptoms and is not a fatal disease.

T / **F**

28. Which of the following is not a type of tuberculosis

a. primary TB

b. secondary TB

c. tertiary TB

29. In a tuberculosis infection, a Ghons focus consists of

- a. tubercle bacillus
- b. macrophages
- c. immune cells
- d. all of the above**
- e. none of the above

30. Haemoptysis (coughing up blood) may occur in tuberculosis infection.

T / F

31. X ray scans do not show changes in the lungs following tuberculosis infection.

T / **F**

32. Which of the following is not a feature of asthma

- a. an increase in the secretions of the bronchi and bronchioles
- b. bronchoconstriction due to contraction of the smooth muscles of the airways
- c. decreased release of histamine in response to allergic stimuli**

33. Asthma is the only respiratory condition that produces a respiratory wheeze.

T / **F**

34. In asthmatic individuals, the residual volume is usually **increased** / decreased.

35. Hypoxemia is the condition of having **increased** / **decreased** oxygen in the blood.

36. Describe why a spacer is recommended for patients who use a puffer device for the management of their asthma. **to prevent the molecules from colliding onto the posterior aspect of the oropharynx and allowing them to pass into the airways where they have the most effect**

37. Chronic Obstructive Pulmonary Disease consists of

- a. chronic bronchitis only
- b. emphysema only
- c. either chronic bronchitis or emphysema**

- d. neither chronic bronchitis nor emphysema
38. A patient suffering from chronic **bronchitis** / **emphysema** is referred to as a blue bloater.
39. Emphysema is most related to the older patient who has
- a.
 - b. consumed alcohol for a long period of time
 - c. consumed a large amount of fat for a long period of time
40. Emphysema is due to a destruction of the walls of the alveoli in the lungs. Describe why this results in breathlessness and fatigue. _____ **there is a decrease in the surface area of the alveoli that reduces the ability of the alveoli to exchange gasses with the blood and results in breathlessness and fatigue due to hypoxia of the tissues** _____
41. Which of the following is not a classification of emphysema
- a. alveolar
 - b. centrilobar
 - c.
42. Complications of emphysema include respiratory / **alkalosis**.
43. Bronchitis is due to / **decreased** mucous secretions of the epithelial lining of the bronchi and bronchioles.
44. **Simple** / bronchitis is most associated with morbidity or mortality.
45. A chest X ray is the most appropriate test to identify chronic bronchitis. T
46. A pulmonary embolism may be due to
- a. atrial fibrillation
 - b. oral contraceptive pill
 - c. injuries such as fractures

d. pregnancy

e. all of the above

47. Which of the following tumours of the larynx are malignant

- a. polyps
- b. papillomas
- c. squamous cell carcinomas

48. Lung tumours most often affect females more than males.

T / ☒ F

49. Assessment of a lung tumour may include bronchoscopy with biopsy of suspect tissue.

☐ T / ☒ F

50. **Central** / **obstructive** sleep apnoea is most commonly associated with obesity.

51. Inhaled asbestos may be damaging to cells of the respiratory system.

☐ T / ☒ F

Unit 6

1. Small painful ulcers with white bases and surrounding localised inflammatory response is characteristic of
 - a. stomatitis
 - b. aphthous stomatitis**
 - c. gingivitis
 - d. cheilosis
 - e. glossitis

2. Which of the following conditions is not noted for causing halitosis.
 - a. sinusitis
 - b. post nasal drip
 - c. tonsillitis
 - d. gastro-oesophageal reflux disease (GERD)
 - e. appendicitis**

3. State one activity that is linked with an increased incidence of oral cancer_____
- chewing tobacco**

4. Difficulty in swallowing is called **dysphagia / dyspnoea**.

5. Which of the following conditions is not a type of hiatus hernia
 - a. sliding hiatus hernia
 - b. slipping hiatus hernia**
 - c. para-oesophageal hiatus hernia

6. GERD is called gastro-esophageal respiratory disease. **T / F**

7. Which of the following is not an antacid that neutralises hydrochloric acid (HCl) of the gastric juices.
 - a. NaOH
 - b. NaCl**

c. NaHCO_3

8. Oesophageal varices is caused by portal **hypotension** / **hypertension.**

9. Chronic gastritis may be characterised by ulcerations and necrotic lesions, whilst acute gastritis relates more to an inflammatory state of the mucosa. T / F

10. Helicobacter pylori bacteria are most associated with **peptic ulcers** / **oesophagitis.**

11. Darkly coloured stools showing the presence of blood in the stool are referred to as **haemaemesis** / **melen.**

12. Most malignant neoplasms of the stomach are in the

a. pyloric region

b. fundal region

c. cardiac region

13. Gastroenteritis is defined as inflammation of the stomach and intestines. T / F

14. Gastroenteritis is not caused by bacterial infection. T / F

15. Metabolic acidosis in gastroenteritis occurs from **diarrhoea** / **vomiting.**

16. Lactose intolerance is due to a deficiency of **lactase** / **lactose.**

17. Steatorrhoea is diarrhoea that is

a. pale

b. frothy

c. foul smelling

d. able to float on the water in the toilet

e. all of the above

f. none of the above

18. Coeliac disease occurs in response to a protein that is found in gluten which is present in all of the following except:
- a. barley
 - b. oats
 - ☒ c. rice
 - d. wheat
19. In coeliac disease, the destruction of the microvilli and villi **increases** / ☒ **decreases** the absorptive area of the digestive tract.
20. Crohns disease most commonly affects the terminal portion of which of the following parts of the small intestine
- ☒ a. ileum
 - b. jejunum
 - c. duodenum
21. The skip lesions of Crohns disease are
- a. red, swollen and inflamed areas of intestine
 - b. ulcerated areas of intestines
 - ☒ c. sections of normal mucosa between ulcerations
22. **Volvulus** / ☒ **intussusception** occurs when a portion of the intestine telescopes into another section.
23. Appendicitis is always due to a viral infection. ☐ T ☒ F
24. The pain of appendicitis usually starts
- a. in the lower right quadrant of the abdomen and migrates to the centre
 - ☒ b. in the centre of the abdomen and migrates to the lower right quadrant
 - c. in the lower left quadrant of the abdomen and migrates to the centre
 - d. in the centre of the abdomen and migrates to the lower left quadrant

25. The nerve supply of the peritoneum is via the **somatic / autonomic** nervous system.
26. Pseudopolyps are a feature of **ulcerative colitis / coeliac disease**.
27. The signs and symptoms of ulcerative colitis may include all of the following except
- a. diarrhoea
 - b. the stools may contain blood
 - c. inflammation of the urethra**
 - d. fever
 - e. cramping abdominal pain
28. Infection of diverticulae is called **diverticulitis / diverticulosis**.
29. Diverticulae are most associated with **low / high** fibre diets.
30. A barium enema with x ray is most commonly used to diagnose acute diverticulitis. T **F**
31. Irritable bowel syndrome is described as a **structural / functional** disorder of the bowel.
32. Borborygmi are defined as
- a. bloating or distension of the abdomen
 - b. audible sounds of intestinal activity**
 - c. changes to the timing, frequency and nature of the stools upon defecation
 - d. chronic mucous secretions per rectum leading to itchiness
33. **Internal / external** haemorrhoids are located near the anal orifice and may protrude.
34. Small amounts of bright blood on toilet tissue will always indicate haemorrhoids and will not need to be checked by a doctor. T **F**
35. One cause of polyps of the colon is lack of dietary **fibre / fats**.
36. Primary malignant neoplasms of the colon are usually adenocarcinomas. **T / F**

37. Which of the following conditions predisposes to malignant neoplasms of the colon

- a. coeliac disease
- b. irritable bowel syndrome
- c. ulcerative colitis

38. Investigations for malignant neoplasms of the colon include a barium enema, which shows a characteristic

- a. apple core presentation
- b. banana appearance
- c. orange segment appearance
- d. pear shaped appearance

Unit 7

1. Acute pancreatitis is characterised by all of the following except
 - a. sudden and severe pain in the middle of the abdomen.
 - b. pain feels as if it is radiating through the body to the back
 - c. strong pain experienced in the left lower portion of the abdomen
2. Which of the following is a complication of acute pancreatitis
 - a. areas of destruction within the tissue that may cause an abscess
 - b. long term diabetic-like effects
 - c. renal failure
 - d. all of the above
 - e. none of the above
3. **Acute** / **chronic** pancreatitis is usually due to prolonged and excessive alcohol ingestion.
4. The steatorrhea that is experienced in chronic pancreatitis is due to **increased** / **decreased** bile induced emulsification.
5. The blood levels of **conjugated** / **unconjugated** bilirubin increases in chronic pancreatitis.
6. The majority of pancreatic cancers arise in the
 - a. head of the pancreas
 - b. body of the pancreas
 - c. tail of the pancreas
7. The pain of pancreatic cancers radiates through to the **back** / **pelvis**.
8. Cystic fibrosis causes a reduced movement of **chloride** / **calcium** across membranes.
9. Due to the alterations of the pancreatic secretions, infections are not common in the patient with cystic fibrosis. T / F

10. Hyperinsulinemia causes a decreased response in the target cells of insulin due to **up** / **down** regulation of receptors
11. The major cause of liver failure is alcohol ingestion. T / F
12. Fatty changes / **cirrhosis** of the liver is reversible if the stimulus is reduced.
13. Excessive alcohol ingestion is the only cause of cirrhosis of the liver. T / F
14. A common consequence to cirrhosis is portal hypertension / **hypotension**.
15. Which of the following dilations of blood vessels is not a consequence of the condition identified in the previous question.
- a. distal oesophageal blood vessels
 - b. peri-anal blood vessels
 - c. coronary blood vessels
 - d. peri-umbilical blood vessels
16. Decreased liver function reduces albumin formation, which **increases** / decreases blood colloid osmotic pressure.
17. Ascites is the name given to fluid collection in the
- a. pleural cavity
 - b. peritoneal cavity
 - c. pericardial cavity
18. Jaundice occurs when there is decreased conjugation of **bile** / bilirubin.
19. Following haemolysis, the iron portion of the red blood cell passes to the liver bound to a transport substance called
- a. transferrin

- b. **ferrin**
- c. **ferritin**

20. Jaundice causes the skin and sclera to appear

- a. blue
- b. green
- c. **yellow**

21. The presence of gall stones blocking the bile ducts may cause

- a. prehepatic jaundice
- b. hepatic jaundice
- c. **post-hepatic jaundice**

22. Infectious hepatitis is most commonly caused by **viruses** / **bacteria**.

23. Which of the following causes only acute hepatitis and not a chronic condition

- a. **Hepatitis A**
- b. Hepatitis B
- c. Hepatitis C

24. Hepatitis C is transmitted by all of the following except

- a. IV needle sharing
- b. tattooing
- c. sexual contact
- d. **saliva**

25. Hepatosplenomegaly refers to enlargement of the

- a. liver only
- b. spleen only
- c. **liver and spleen together**
- d. neither liver nor spleen

26. Which of the following is not a common substance assessed in a liver function test

a. ALT

b. AMT

c. AST

27. Most neoplasms of the liver are

a. primary lesions

b. secondary lesions that have metastasised from primary lesions elsewhere in the body

c. neither of the above

28. Icterus (itchy skin) is due to the storage of bilirubin in the skin.

T/F

29. **Cholelithiasis** / **cholecystitis** is the condition of having stones in the gall bladder.

30. Febrile refers to experiencing an increased **temperature** / **sweat production**.

31. **Acute** / **chronic** cholecystitis relates to the invasion of the gall bladder environment by secondary organisms following the stasis of the bile.

32. Describe why ultrasound is more effective than x ray in identifying gall stones. _____

due to the composition of the stones, they are not radio-opaque and therefore will not show up well on x ray

Unit 8

1. The process of passing nutrients that are required by the body back from the filtrate into the peritubular capillaries is
 - a. glomerular filtration
 - b. tubular reabsorption**
 - c. tubular secretion

2. Which of the following is characterised by progressive scar tissue formation
 - a. acute glomerulonephritis
 - b. subacute glomerulonephritis
 - c. chronic glomerulonephritis**

3. The presence of proteins in the urine is called
 - a. haematuria
 - b. hypoalbuminemia
 - c. uraemia
 - d. proteinuria**
 - e. hyperlipidemia

4. Nephrotic syndrome is related to **increased** / ~~decreased~~ glomerular permeability to proteins.

5. The presence of red blood cells in the urine indicates damage to the **glomerular** / ~~peritubular~~ capillaries.

6. There is a decreased ability to clot in nephrotic syndrome due to the loss of
 - a. clotting factors**
 - b. blood pressure
 - c. plasma

7. Prostatic enlargement is an example of which of the following causes of acute renal failure
 - a. pre-renal causes of acute renal failure
 - b. renal causes of acute renal failure

- c. post renal causes of acute renal failure
8. **Creatinine** / **creatinine** is excreted via the urine at a given rate in relation to muscle tissue.
9. Chronic renal failure is most associated with causing metabolic **acidosis** / **alkalosis**.
10. Define nocturia urination during the night
11. When GFR is between 20 - 50% of normal, the patient is described as being in
- a. diminished renal reserve
 - b. renal insufficiency**
 - c. renal failure
 - d. end stage renal disease
12. End stage renal disease features glomerular scarring and fibrosis of tubules. T / F
13. Gout result from **hyperuricemia** / **hypouricemia**.
14. Gout does not commonly affect which of the following locations
- a. metatarsophalangeal joint of the big toe
 - b. the lobe of the ear
 - c. cheek region of the face**
15. Long term structural changes of the kidney that are related to diabetes mellitus include
- a. a gradual thickening and folding of the basement membrane**
 - b. a decreased renal permeability to macromolecules
 - c. both of the above
 - d. neither of the above
16. Uremia is due to excessive blood levels of
- a. urea**
 - b. uric acid
 - c. urine

17. The major causes of renal calculi include all of the following except:

- a. increased serum levels of calcium or phosphate
- ☒ b. increased urine output
- c. increased uric acid
- d. increased concentration of normal urine

18. Kidney stones will show up well on an x-ray.

☐ T / ☒ F

19. Oliguria is described

- a. excessive urination
- ☒ b. reduced urination
- c. lack of urination

20. Hydronephrosis is an enlargement of the ☒ kidney / ☐ urinary bladder.

21. Vesico-ureteral reflux causes a ☒ primary / ☐ secondary hydronephrosis

22. An intravenous pyelogram may be used to assess filtrate formation within the kidney.

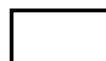
☐ T / ☒ F

23. Renal tumours can be located in the

- a. renal cortex of the kidney only
- b. renal medulla of the kidney only
- ☒ c. either the renal cortex or the renal medulla
- d. neither the renal cortex nor the renal medulla

24. Renal tumours that metastasis to distant organs are classified as

- a. stage I
- b. stage II
- c. stage III
- ☒ d. stage IV



25. Urinary tract infections affect the bladder or urethra are referred to as an **upper / lower** urinary tract infection.
26. **Upper / lower** urinary tract infections cause more alteration to urine flow than systemic effects of infection
27. Describe why females are more predisposed than males to ascending infections of the urinary system. **females have a shorter urethra than males**
-
28. Inflammation of the urinary bladder is called
- a. pyelonephritis
 - b. pyonephrosis
 - c. renal TB
 - d. cystitis**
 - e. urethritis
29. Signs and symptoms of cystitis include all of the following except
- a. dysuria
 - b. decrease in the number of urinations per day**
 - c. alterations in the urine
30. Males tend to get **urethritis** / cystitis.

Unit 9

1. PCOS affects the **ovary** / oesophagus.
2. **Hyperinsulinemia** / hypoinsulinemia is linked with PCOS.
3. In the presence of inhibin, gonadotrophic releasing hormone causes the release of **LH** / FSH.
4. The patient with polycystic ovary syndrome has
 - a. increased fertility
 - b. unchanged fertility
 - c. decreased fertility
5. Painful sexual intercourse is called **dysmenorrhea** / **dysparuenia**.
6. Primary tumours of the ovaries are usually adenocarcinomas. **T** / F
7. Metastasis of neoplasms of the ovaries may spread to the uterus through the
 - a. pleural cavity
 - b. periosteal cavity
 - c. peritoneal cavity
 - d. pericardial cavity
8. Salpingitis is infection of the **uterus** / **uterine tubes**.
9. **Acute** / **chronic** salpingitis can cause infertility due to scar tissue.
10. The most common location of an ectopic pregnancy is the
 - a. ovary
 - b. uterine tube
 - c. uterus
 - d. vagina

11. Any pain in the lower abdomen may be indicative of an ectopic pregnancy. T / F

12. A ruptured tubal ectopic pregnancy may be fatal due to

- a. associated peritonitis
- b. increased risk of peritoneal infection
- c. either of the above
- d. neither of the above

13. The condition characterised by endometrial cells in non-uterine locations is called

endometriosis

14. Chocolate cysts are associated with **endometriosis / salpingitis**.

15. The pain of endometriosis is worst for the few days leading up to **menstruation / ovulation**.

16. Although painful, endometriosis does not cause the complication of infertility. T/F

17. Which of the following is not a common presentation of endometriosis

- a. dysmenorrhoea
b. dyspareunia
c. dysphagia

18. Fibroids consist of smooth muscle tissue and endometrial tissue. T / F

19. Fibroids located between the endometrium and myometrium are **submucous / subserous**.

20. There will be **increased / decreased** uterine bleeding in a patient with fibroids.

21. Most uterine carcinomas derive from the transformation zone of the cervix.	T / F
--	-------

22. Which of the CIN classifications is also called carcinoma in situ

- CIN I
- CIN II

c. CIN III

23. CIN III can relate to a viral infection and can spontaneously regress.

T / ☒ F

24. Cervical cancer is highly related to the incidence of

a. human immunodeficiency virus (HIV)

☒ b. human papilloma virus (HPV)

c. human herpes virus (HHV)

25. Which of the following is a test for cervical cancers in which a wedge of cervical tissue is removed for assessment

a. Papanicolaou (Pap) test

b. colposcopy

☒ c. cone biopsy

26. Vulvovaginitis is not caused by

a. fungi

b. bacteria

c. viruses

☒ d. helminths

27. The normal vaginal secretions of the female reproductive tract have pH of

a. 1.5 – 3.5

☒ b. 3.5 – 4.5

c. 5.5 – 7.5

d. 7.5 – 9.5

e. 9.5 – 14

28. Vaginal cancer is most common between ages 25 - 40.

T / ☒ F

29. Vaginal cancer may cause

a. bleeding after intercourse

- b. bleeding following examination
- c. either of the above
- d. neither of the above
30. Most vulvar cancers are **squamous** / **basal** cell carcinomas.
31. All cases of vulvar cancer are asymptomatic. T / **F**
32. A Bartholins cyst may lead to an abscess due to **bacterial** / **viral** infection.
33. Acute mastitis is commonly due to a bacterial infection of **cracked** / **inverted** nipples.
34. The breast milk produced during acute mastitis should be expressed throughout treatment and discarded. **T** / **F**
35. Breast lumps that appear or disappear at different stage of the ovarian cycle are always due to chronic mastitis. **T** / **F**
36. Breast cancer that causes causes bloody discharge from the nipple is most likely to be a
- a. fibroadenoma
- b. intraductal papilloma
- c. extraductal papilloma
37. Metastases from a melanoma of the skin may cause secondary breast cancer. **T** / **F**
38. Which of the following is not a genetic defect associated with breast cancer
- a. mutations of BRCA 1 gene
- b. mutations of BRCA 2 gene
- c. mutations of BRCA 3 gene
39. Which of the following signs and symptoms of breast cancer is not associated with Coopers ligaments
- a. dimpling of the skin overlying the lesion

b. retraction of the nipple

c. "peau d'orange" skin

40. Lymphatic spread of breast cancer commonly occurs to the **axillary** / **inguinal** lymph nodes.

41. Most breast lumps are discovered during self breast examination.

T / F

42. Mammography is of limited value in assessing **younger** / **older** females due to increased density of the normal breast tissue.

43. Which of the following is commonly used to determine whether the lesion is cystic (fluid filled) or solid

a. mammography

b. ultrasound

c. thermal imaging

Unit 10

1. Injuries to the male reproductive organs usually occur from **physical** / **emotional** trauma.

2. Although painful, trauma to the testes will not cause infertility.

T / **F**

3. The descent of the testes occurs through the **inguinal** / **umbilical** canal.

4. Females are more vulnerable to suffer inguinal herniae than males.

T / **F**

5. Which of the following is the result of fluid in the tissue spaces around the testicle

a. torsion of the testes

b. hydrocoele

c. varicoele

6. A varicocoele is more common on the **left** / **right** side.

7. In a semen analysis, the sperm count should be more than

a. 20 thousand sperm per ml

b. 20 million sperm per ml

c. 20 billion sperm per ml

8. Orchitis is the name given to inflammation of the **testicle** / **epididymis**.

9. The major type of neoplasm that affects the testicle is a **seminoma** / **teratoma**.

10. Due to modern microsurgery procedures, all vasectomies are reversible.

T / **F**

11. Benign prostatic hypertrophy (BPH) occurs due to the conversion of testosterone into

a. di-hydrotestosterone

b. tri-hydrotestosterone

c. tetra-hydrotestosterone

12. Which of the following is not a lobe of the prostate gland
- a. lateral lobe
 - b. median lobe
 - c. posterior lobe
 - d. anterior lobe
13. Prostatic carcinoma occurs more frequently in males
- a. between 20 and 30 years of age
 - b. between 30 and 40 years of age
 - c. between 40 and 50 years of age
 - d. over the age of 50 years
14. Which of the following indicates a prostate cancer has metastasised to a distant organ
- a. Mx
 - b. M0
 - c. M1
15. Which of the following is not a sign or symptom of enlargement of the prostate
- a. hesitancy
 - b. strong urinary stream pressure
 - c. terminal dribbling
 - d. nocturia
 - e. secondary urinary infections from urinary stasis
16. A DRE is a
- a. blood test analysing the level of PSA
 - b. physical examination procedure in which the prostate is felt
 - c. urine analysis identifying bacterial infection
 - d. all of the above
 - e. none of the above

17. Inflammation of the glans penis is called

- a. phimosis
- b. posthitis
- c. balanitis**
- d. balanoposthitis
- e. paraphimosis

18. An abnormal opening of the urethra on the ventral surface of the penis is **hypospadias/ epispadias**.

19. Due to the length of the male urethra, males are more likely to suffer **cystitis/ urethritis**.

20. Squamous cell carcinoma of the penis may be caused by infection by the human papilloma virus. **T / F**