

ESSAY Questions

Define necrosis. Describe various types of necrosis giving examples

1. Discuss healing of fracture (RGUHS – Jun 2010)
2. Describe in detail the cellular events in acute inflammation (RGUHS- Jun 2008, Dec 2009)
3. Define inflammation. Discuss in detail about chemical mediators of inflammation (RGUHS- Jan 2009)
1. Define shock. List the major types of shock with suitable examples. Describe the pathogenesis of septic shock (Pondicherry university 2018)
2. A 55 years old lady was brought to the emergency room unconscious. her blood pressure was very low. pulse was weak and rapid. Her skin was warm and flushed. Her blood culture revealed growth of gram positive bacteria.
 - a. What is possible diagnosis
 - b. Describe the pathogenesis of this condition
 - c. Describe the stages of this disorder

(Answer: Shock) (Dr.NTRUHS Jan 2015)

1. A 60 year old patient long history of rheumatoid arthritis presented with enlarged tongue and a history of diarrhoea. Urine shows positive heat test for proteins and ECG shows conduction disturbances.
 - a. What is the possible diagnosis and what will be ideal site for biopsy to confirm it
 - b. Name the lab technique for definite diagnosis
 - c. Write four types of this abnormal substance and their associated diseases
 - d. Give structural details of the substance

(Answer : Amyloidosis)

1. An young stout male met with an accident. He sustained multiple injuries, fractures of femur and tibia. These fractures are stabilized at surgery soon after admission. He is in a stable condition. However 2 days after admission he suddenly becomes dyspneic and developed tachypnea and tachycardia, irritability, restlessness and it progressed to delirium, coma and death on 7th day.
 - a. What is the provisional diagnosis
 - b. Discuss the pathogenesis of the lesion
 - c. Describe microscopic picture of the lungs in the above condition
 - d. How frozen sections of the lung tissue help in final diagnosis at autopsy and mention various stains specific for it.

(Answer : Fat embolism and its consequences)

1. A homosexual individual who is also an intravenous drug abuser with history of persistent generalized lymphadenopathy (PGL) and chronic diarrhea came to sexually transmitted diseases (STD) OPD with mucosal candidiasis, fever, oral hairy leukoplakia and loss of more than 10% body weight. There is a fall in CD4+T cells count
 - a. What is the provisional diagnosis
 - b. Describe the sequences of events in the pathogenesis of the disease
 - c. Discuss various tests used for diagnosis and for monitoring treatment of same

(Answer : HIV infection its pathogenesis and diagnosis)

2. Define and classify Amyloidosis. Explain the gross and microscopic features of organs involved in secondary amyloidosis (RGUHS- Dec2010)

3. Describe the pathogenesis, morphology and staining characteristics of amyloidosis (RGUHS- Jun 2009, July 2008)

Define and classify Amyloid. Describe physical and chemical nature of amyloid. Enumerate the special stains for amyloid

1. Define neoplasia. Discuss differences between benign and malignant tumors (**RGUHS- Jul 2012**)
2. Define neoplasm. Classify neoplasia. Discuss histogenesis and biological behavior of tumors (**RGUHS-Jun 2011**)

1. A forty year old man presented with history of persistent cough and evening rise of temperature over a period of 4 months, with associated loss of appetite and reduction in weight. Examination revealed matted cervical lymph nodes. An X ray chest done showed a small radio opaque focus in the apex of the upper lobe of right lung.

- a. What is your diagnosis
- b. Describe in detail the pathogenesis of the disease
- c. Describe the microscopic features associated with this lesion
- d. Enumerate the complications associated with this condition

(Answer: Tuberculosis) (NTRUHS Feb 2018)

2. A 52 year old beggar is admitted with skin patches and nodules on the face. skin patches are hypoaesthetic. Few toes on both feet are amputated partly

- what is the probable diagnosis? How will you make the diagnosis
- Classify the disease
- What special stains will you do on the biopsy to make the diagnosis
- Discuss the mode of transmission of the disease

(Answer : Leprosy)

2. Pathogenesis of essential hypertension (NTRUHS, April/May, 2004)

3. Athrosclerosis

1. A 59 year old man was admitted with history of chest pain of half an hour duration. Pain was in the precordial area with radiation in the left arm. Pain was severe in nature and was accompanied by vomiting. ECG showed ST segment elevation with T wave inversion.

- a. what is the most likely diagnosis
- b. What biochemical investigations are useful in such a case
- c. What complications can occur
- d. What are the predisposing factors of this disease

(Answer: Myocardial infarction) (NTRUHS July 2017, January 2016)

2. 45 year old man was rushed to the hospital following sudden onset of an episode of crushing substernal chest pain. He received advanced life support measures. His course was marked by intractable cardiogenic shock and he died 4 days later. At autopsy, a large transmural anterolateral area of coagulative necrosis was found in the anterolateral wall of left ventricle.

- a. What is your diagnosis?
- b. What microscopic findings are most likely to be present in this area?
- c. What are the risk factors leading to this condition?
- d. What are the complications of this disease?

(Answer: Myocardial infarction) (NTRUHS June 2013)

3. An adult male patient having coarctation of the aorta and periodontal infection with history of vigorous brushing of teeth came to the hospital with fever and anemia. On examination there are crops of petechiae over the skin, subungual hemorrhages, small tender cutaneous nodules, pain in the splenic region and retinal hemorrhages. Urine examination showed hematuria

- a. What is the probable diagnosis
- b. Describe the aetiopathogenesis and morphology of lesions in various organs involved
- c. Mention the complications

(ANSWER: Infective endocarditis) (NTRUHS March 2010)

4. A 12 year old boy presented with fever, migrating joint pain and palpitation. Child had an upper respiratory infection 3 weeks back. On examination a subcutaneous nodule was observed on the extensor aspect of right elbow. On auscultation heart sounds were weak with tachypnea

- a. What is your diagnosis
- b. Describe the morphological features expected in the organ involved
- c. Add a note on its aetiopathogenesis

(Answer : Rheumatic heart disease)

(RGUHS, July 2008)

4. Write about the etiopathogenesis and pathology of myocardial infarction with diagnostic tests (RGUHS Jun 2012)
5. Discuss etiopathogenesis, morphology and complications of Rheumatic Heart Disease. (RGUHS Jun 2010)
6. A child aged 10 years presented with history of fever, sore throat, migratory polyarthritis and subcutaneous nodules
 - a. What is your probable diagnosis
 - b. Discuss the etiopathogenesis and pathology of the target organ

1. (Answer : Rheumatic heart disease)

1. A 22 year old male presented with fatigue and breathlessness developing over 1 week. On examination he had gum bleeding, epistaxis with petechiae, lymphadenopathy and splenomegaly. CT scan showed presence of mediastinal mass.
 - a. Give the possible diagnosis
 - b. Give the peripheral blood and bone marrow findings
 - c. Give the cytochemical staining properties
 - d. What are the prognostic factors

(Answer: ALL)

(DR NTRUHS July 2019)

2. A 25 year old female presented with fatigue, pallor, purpuric rash, intermittent respiratory infections, cervical lymphadenopathy and splenomegaly for a duration of 2 months. Laboratory investigations showed hemoglobin- 7gm/dl. TLC 50,000/mm³, platelet count 45,000/mm³. Bone marrow revealed myeloblasts with numerous auer rods.

1. What is the probable diagnosis
2. What are the characteristic peripheral smear and bone marrow finding
3. What are the characteristic cytochemical findings
4. Enumerate some of the prognostic factors of the condition

(Answer : AML)

(Pondicherry university 2018)

2. A 35 year old man admitted with gradual weakness with dragging sensation left side of abdomen. His liver is 2 cms and spleen is 15cms enlarged below costal margin. His Hb is 9.3gm% ;TLC – 2,50,000/cumm and platelet count is 3,80,000/cumm

- a. What is the probable diagnosis
- b. Give the blood picture and molecular abnormality in this disease
- c. How will you differentiate it from Leukamoid reaction
- d. Give five causes of massive splenomegaly

(Answer: Chronic Myeloid Leukemia)

(NTRUHS 2018)

3. A 3 years old child admitted with fever and petechial hemorrhages for 2 weeks. on examination child is pale, no liver/spleen enlargement. cervical lymphnodes are enlarged. TLC – 50,000/cumm. peripheral smear shows blast cells.

- a. What is the probable diagnosis ?
- b. What is the bone marrow picture in this disease?
- c. Enumerate the various prognostic factors.
- d. Tabulate the differences between Lymphoblast and Myeloblast.

(Answer : Acute Lymphoblastic Leukemia)

(NTRUHS January 2014)

4. A male child aged 8 yrs presented with fever, fatigue, generalized lymphadenopathy, bone pain, petechial hemorrhages over the skin, pallor, enlarged testis and features of meningism

- a. What is your provisional diagnosis
- b. Describe blood and bone marrow picture
- c. Other investigations to confirm the diagnosis
- d. Discuss the prognosis of the same

(Answer : Acute Lymphoblastic Leukemia)

(NTRUHS January 2014)

5. A 35 years old male was admitted with easy fatiguability, anorexia, weakness, weight loss, night sweats and dragging sensation in the abdomen due to massive splenomegaly. His total WBC count was 2,00,000 cell/mm³

- a. What is the provisional diagnosis
- b. Describe the blood and bone marrow picture
- c. Describe the chromosomal abnormality of the disease
- d. Mention various phases of the disease

(Answer : Chronic Myeloid Leukemia) (NTRUHS July 2013)

6. A 4 year old male child presented with fatigue, fever, epistaxis, bleeding gums, bone pains and CNS manifestations from meningeal involvement. Physical examination revealed petechial and echymoses of skin and mucous membrane, generalized lymphadenopathy and testicular enlargement. The leukocyte and differential counts are abnormal

- a. What is the provisional diagnosis
- b. Discuss various main laboratory investigations to make a final diagnosis
- c. Describe peripheral blood and bone marrow picture
- d. Discuss the molecular pathogenesis of disease

(Answer : Acute Lymphoblastic Leukemia) (NTRUHS January 2012)

7. A 35 year old male patient presented with high fever, fatigue, pallor, skin petechiae, swollen gums and bone pains. His total WBC count was 1,00,000/ μ L

- a. What is the provisional diagnosis
- b. Describe the blood and bone marrow picture of the above case
- c. Discuss the prognosis of the disease

(Answer : Acute Myeloid Leukemia) (NTRUHS August 2009)

8. A 2 year old child presented with fatigue, fever, epistaxis, bleeding gums and bone pain. On examination, generalized lymphadenopathy and hepatosplenomegaly was noted. Total leukocyte count was 1,50,000/ μ L

- a. What is the probable diagnosis
- b. Describe the cytogenetics of the disease
- c. Describe the peripheral blood smear and bone marrow finding of the same
- d. Describe the prognostic factors of the disease

(Answer : Acute Lymphoblastic Leukemia) (NTRUHS May 2007)

9. 36 year old female came with swollen gums, fatigue and weight loss. She gives the history of repeated upper respiratory tract infections. On examination pallor, fever and hepatosplenomegaly present.

- a. What is the provisional diagnosis
- b. Mention various investigations to make a final diagnosis
- c. Emphasis on peripheral blood and bone marrow picture

(Answer : Acute Myeloid Leukemia) (NTRUHS May 2006)

10. A 30 year old male patient came with moderate anemia, easy fatigability, weakness, weight loss, anorexia, dragging sensation in the abdomen due to extreme splenomegaly. Chromosomal analysis revealed the presence of Philadelphia chromosome.

- a. What is the provisional diagnosis
- b. Describe the lab investigations to make a final diagnosis
- c. Describe the blood and bone marrow picture of the disease

(Answer : Chronic Myeloid Leukemia) (NTRUHS May 2004)

SHORT QUESTIONS (4 MARKS)

1. Enlist the types of plasma cell dyscrasias. Discuss in detail bone marrow findings of multiple myeloma (Pondicherry university June 2019)
2. Burkitt's Lymphoma. (NTRUHS- 8th April 2000, JAN 2014)(RGUHS- Jan 2009, Jun 2009, Dec 2010)
3. Tabulate the differences between myeloblast and lymphoblast (RGUHS- Dec 2012)
4. Peripheral blood picture in Acute lymphoblastic leukemia
5. Peripheral smear in Chronic myeloid leukemia (RGUHS- Jul 2012)
6. Philadelphia chromosome (RGUHS- Dec 2010)

7. Multiple myeloma (RGUHS- Jun 2013)
8. Laboratory diagnosis of multiple myeloma (RGUHS- Jan 2008, Jun 2011, Dec 2013)

VERYSHORT QUESTIONS(2 MARKS)

1. Variants of Reed-Sternberg cell (NTRUHS Feb 2019, RGUHS- Jul 2008, August 2009, Jun 2010, Jun 2011)
2. Auer rods (RGUHS Dec 2018, Dec 2013)
3. Reed-Sternberg Giant cells. (RGUHS Dec 2018, NTRUHS- July 2011, APRIL/MAY 2004)(RGUHS- Dec 2010, Jun 2011)
4. Staging of Hodgkins disease (NTRUHS July 2017)
5. Hodgkin's disease (NTRUHS- Oct/Nov 2002)
6. Fab Classification Of Acute MyeloblasticLeukaemia (AML)
7. Tabulate The Differences Between Leukemoid Reaction And Chronic Myeloid Leukemia. (NTRUHS- July / Aug 2014)
8. Blood Picture And Bone Marrow Findings In CML (NTRUHS)
9. Name Any Four Myeloproliferative Disorders (NTRUHS- July 2015)
10. Draw A Diagram Of Reed Sternberg Cell (NTRUHS- July / Aug 2014)
11. LE. Cell (NTRUHS- October 2008) (RGUHS Dec 2013)
12. Classification of Hodgkin Lymphoma (RGUHS- Jan 2009, Jun 2013)
13. Lymphoma (RGUHS- Jul 2008)
14. Write the bone marrow findings in multiple myeloma (RGUHS- Jan 2008)
15. Morphology of plasma cells in Multiple myeloma (RGUHS- Jun 2009)
16. Bence Jones proteins. Mention demonstration (RGUHS- Jul 2008, Dec 2009)
17. Peripheral blood picture in Acute myeloid leukemia (RGUHS- Jun 2008)
18. Absolute indications of bone marrow aspiration (RGUHS- Jun 2010)
19. Agranulocytosis (RGUHS- Jan 2009, Dec 2009)

RBC, Bleeding Disorders & Transfusion Medicine

ESSAY QUESTIONS(10 MARKS)

1. Classify hemolytic anemias. Write in detail pathogenesis and morphology of sickle cell anemia. What are the lab investigations to ascertain the diagnosis (MU June 2019)
2. A 55 year old lady presented with progressive fatigue and tiredness for last one month. She also complained of tingling and numbness in the lower limbs. on examination she had pallor and her tongue had a glossy appearance.
 1. What is your diagnosis
 2. What is the cause for neurological symptoms in this condition
 3. What are the peripheral smear and bone marrow findings in this condition
 4. Which specific tests would you like to do to diagnose this condition (Megaloblastic anemia; NTRUHS Feb 2019)
3. Define anemia and mention the etio-pathological classification. Discuss the peripheral blood and bone marrow findings in megaloblastic anemia (RGUHS Dec 2018)
4. One year old child is admitted with increasing pallor since the age of 2 months. on examination there is pallor and hepatosplenomegaly. Hb-7.2gm%, TLC and DC are within normal limits. platelets are normal
 - a. What is probable diagnosis
 - b. How do you classify the disease group
 - c. What is the blood picture in the disease
 - d. Give the clinical picture of the disease (Hemolytic Anemia : Thalassemia) (Dr. NTRUHS Jan 2016)

3. A 20 years old male presented with swelling of both knees and pain for the past one week. He gives history of similar episodes earlier. He also gives history of excessive bleeding after minor injuries. His maternal uncle has a similar complaints and has been treated by repeated blood transfusions following excessive bleeding episodes .

- a. What are possible differential diagnosis
- b. What are the laboratory investigations required for the diagnosis
- c. What is the etiopathogenesis of this disorders
- d. How will you make the final specific diagnosis

(Answer : Haemophilia) (NTRUHS July 2016)

4. A 3 year old child presented with pallor growth retardation and history of repeated blood transfusions. The child is having splenomegaly and mild jaundice. There is malocclusion of jaw with skull x-ray showing “Hair on end (Crew cut)” appearance.

- a. What is the most probable diagnosis
- b. Describe various laboratory investigations to establish the diagnosis
- c. Discuss the pathogenesis of the disorder

(Answer : Thalassemia) (NTRUHS July 2012)

5. A 30 year old pregnant lady who cherishes to eat food prepared by boiling, steaming and frying presented with anemia, glossitis, mild icterus, history of diarrhea, loss of appetite and lack of well being . No evidence of nervous system manifestations. Her serum Homocysteine (HCSY) levels are elevated but not methylmalonic acid levels.

- a. What is the provisional diagnosis
- b. Describe the peripheral blood and bone marrow picture
- c. Discuss the special tests in diagnosis

(Answer : Megaloblastic anemia- Folic acid deficiency) (NTRUHS March 2010)

6. 35 year old female presented with anemia, glossitis and neurological manifestations

- a. What is your provisional diagnosis
- b. What are the laboratory investigations you do in this case
- c. How do you confirm the diagnosis

(Answer : Megaloblastic anemia, B12 deficiency) (NTRUHS April 2009)

7. A 30 year old female presented with anemia, loss of sensation and tingling in the feet. Examination showed smooth tongue with atrophic papillae.

- a. What is the probable diagnosis
- b. What is the deficiency in this condition
- c. Describe the peripheral blood picture and bone marrow picture

(Answer : Megaloblastic anemia- B12 deficiency) (NTRUHS October

2005)

8. 25 years old female with the h/o 4 months Amenorrhoea complaining of mild jaundice, anemia and glossitis. Discuss the causes and investigation to come to diagnosis

(Answer : Pernicious anemia) (NTRUHS April 2003)

9. A young boy came with the history of massive hemorrhage after trauma, recurrent haemarthrosis in large joints, muscle hematomas and progressive deformities leading to crippling. Some of the family members also suffered with identical clinical manifestations

- a. What is the provisional diagnosis
- b. Discuss the various laboratory investigations to confirm the diagnosis

(Answer : Hemophilia) (NTRUHS August 2010)

10. A male child presented with recurrent painful haemarthrosis and haematomas. History of bleeding in male relatives on the maternal side of the family was available.

- a. What is the probable diagnosis
- b. Describe the inheritance of this disease
- c. Mention the complications following the therapy.

(Answer : Hemophilia)

11. A 13 year old boy came to the hospital with painful left elbow following mild trauma few days ago. Past history of bleeding gums given. His elder brother also had similar problem

- a. What is probable diagnosis
- b. What important investigations should be done

c. What is the confirmatory tests

(Answer : Hemophilia) (NTRUHS April 2005)

12. 20 years old young man came with the history of massive hemorrhage after trauma, recurrent haemarthrosis, progressive deformities leading to crippling with same type manifestations in some family members.

a. What is the probable diagnosis

b. Mention various laboratory investigations with findings to make a final diagnosis

(Answer : Hemophilia) (NTRUHS September 2003)

. Clas Enumerate the causes of hemolytic anemias. Discuss the laboratory diagnosis of hemolytic anemia in general **(RGUHS- Jan 2008, Jun 2010)**

17. Define anemia. Give the aetiologic classification of anemias. Discuss causes, the peripheral blood smear and list the laboratory investigations in iron deficiency anemia **(RGUHS- Jul 2008, Jun 2011, Jun 2013, Dec 2013)**

18. Classify anemia. Write in detail about megaloblastic anemia **(RGUHS- Jul 2009, Dec 2009)**

19. Describe and classify purpuras. Describe the etiology, hematological features, clinical features and laboratory diagnosis of Idiopathic Thrombocytopenic Purpura (ITP) **(RGUHS- Dec 2010)**

1. Classification of anemias and lab diagnosis of megaloblastic anemia **(DR NTRUHS July 2019)**

2. Disseminated intravascular coagulation **(DR NTRUHS July**

2. sify hemolytic anemias. Write the pathogenesis and morphology of sickle cell anemia

1. A 68 year old male presented with weight loss, changes in bowel habits and vague abdominal discomfort of 5 months duration. Stool examination revealed occult blood. He was also found to have microcytic hypochromic anemia and elevated serum CEA level

1. what is the most probable diagnosis

2. Discuss the etiopathogenesis of the condition

3. Morphology of the affected organ

4. Laboratory investigations to diagnose the condition

(Answer: Carcinoma rectum)

(Pondicherry university 2018)

1. **An elderly male presented with history of bleeding per rectum, altered bowel habits, loss of appetite, loss of weight and crampy lower quadrant discomfort in the abdomen.**

Hematological evaluation revealed iron deficiency anemia.

a. What is your diagnosis

b. Discuss the etiopathogenesis of this disease

c. Describe the morphology of this lesion

(Answer: Carcinoma Rectum)

(NTRUHS Feb 2017)

2. A 58 years old male labourer presented with history of epigastric pain occurring immediately and sometimes within the hours of taking food. The pain is relieved by vomiting. He had good appetite but afraid to eat and used to take bland diet. There is significant loss of body weight and deep tenderness in the midline of epigastrium

a. What is the provisional diagnosis

b. Discuss the etiopathogenesis

c. Describe the morphology of the lesion

d. Mention the complications

(Answer : Peptic ulcer in stomach)

(NTRUHS Jan 2012)

3. A 48 years old male presented with weight loss, anorexia, vomiting and mass in the epigastric region. On investigation, he was detected to have rigid, thickened leather bottle stomach and a space occupying lesion in the liver

a) What is the probable diagnosis

b) What are the factors associated with the causation of the condition

c) Describe the morphology of the organ involved?

d) Describe the mode of spread

(Answer : Gastric carcinoma – Scirrhus type with liver metastasis) (NTRUHS Sep/Oct, 2007)

4. A 48 years old male was admitted with Acute abdominal pain following a heavy meal. He is an alcoholic.

1. a) What is the probable diagnosis
2. b) What important investigations will support your diagnosis
3. c) What is the pathology in the organ involved

(Answer : Acute pancreatitis)

(NTRUHS October-2005)

5. A 50 year old businessman complained of burning pain in the upper abdomen and retrosternal region for a long time. The pain worsened at nights and occurred 3 hours after meals. Pain was relieved with food.

- a) What is the provisional diagnosis?
- b) What is the aetiopathogenesis?
- c) Describe the pathology
- D) complications.

(Answer : Peptic ulcer in deudenum)

(NTRUHS October, 2004)

5.A man developed gradual loss of weight, abdominal pain, anorexia, vomiting. A mass was detected in epigastric region. Stools were positive for occult blood. There is a firm lymphnodal mass in left supraclavicular region and another nodule in the peri umbilical region.

1. What is your probable diagnosis?
2. What is the etio-pathogenesis and pathology of the organ involved?

(Answer: Gastric carcinoma with metastatic deposits)

(RGUHS- Jun 2011)

6.What are inflammatory bowel diseases? Discuss in detail the etiopathogenesis, pathology and complications of Crohn's disease. (RGUHS Dec 2009)

7.Define peptic ulcer. Discuss the pathogenesis and morphology of peptic ulcer.

(RGUHS Jan 2009)

8.Describe the etiology, pathogenesis and morphology of carcinoma colon.

(RGUHS Jun 2013)

9. A male aged 45 years complaining of bloody, mucoid diarrhoea for the last three months. he had previous attacks at intervals and tenesmus and colicky lower abdominal pain relieved by defecation. he gives history of migratory poly arthritis and urinary tract infections.

- a. what is the probable diagnosis
- b. what are the pathological lesions in the organ affected
- c. what are the investigation to confirm diagnosis

3. (Answer: Inflammatory BowelDisease

1. A 45 year old woman presented to the surgical OPD with yellowness in eyes and skin, passage of dark coloured urine and pale stools. She complained of right upper abdominal pain on and off, nausea and vomiting. On USG, radio opaque shadows were seen in Right upper quadrant of abdomen

1. what is the most likely diagnosis
2. what investigations would be appropriate
3. what is etiopathogenesis of this lesion
4. what are the complications of the disease

(Answer: Gall stones leading to obstructive jaundice) (NTRUHS July 2019)

2. Define and classify cirrhosis. Discuss the pathology and complications of Alcoholic cirrhosis (RGUHS Dec 2018)

3. A 43 year old male, chronic alcoholic dies after a bout of profuse hematemesis

- a) What is the probable diagnosis?
- b) Describe the morphological changes in the target organ involved
- c) Write the sequential events that have lead to death

(Answer: Cirrhosis with portal hypertension leading to bleeding from oesophageal varices)
(NTRUHS Jan, 2011)

4. A 50 year old chronic alcoholic was admitted with distended abdomen and hematemesis. He appears emaciated and has altered sensorium

- a) What is the provisional diagnosis
- b) What is the gross and microscopic picture of the involved organ
- c) Mention the complications

(Answer : Cirrhosis causing portal hypertension leading to Ascites, bleeding from esophageal varices and hepatic encephalopathy) (NTRUHS MAY-2006)

5. A 50 year old chronic alcoholic developed ascites with history of repeated bouts of hematemesis and bleeding from rectum, admitted with coma and died. Scan showed shrunken liver and splenomegaly

- a) What is the probable diagnosis
- b) Mention the reasons in support of your diagnosis
- c) Describe the pathology of liver and spleen.

(Answer : Cirrhosis causing portal hypertension leading to Ascites, bleeding from esophageal varices and hepatic encephalopathy) (NTRUHS April ,2004)

6. Briefly describe the etiologic agents of Chronic viral hepatitis. Discuss in detail the morphology of Chronic Hepatitis. (RGUHS Dec 2013)

7. Classify Viral hepatitis. Describe the structure, course of disease & serological markers for hepatitis B virus. (RGUHS Dec 2012)

8. A male aged 52 years developed gradual weakness, anorexia, weight loss. He has ascites, splenomegaly, jaundice, spider angiomas on skin and gynecomastia. Over time he developed behavioural abnormalities, stupor and slipped into coma. There is history of chronic alcoholism.

- a. What is the probable diagnosis.
- b. Discuss etiopathogenesis, pathology and complications

(Answer : Cirrhosis causing portal hypertension leading to Ascites and hepatic encephalopathy) (RGUHS Dec 2011)

9. Define and classify Cirrhosis. Write the gross and microscopic appearance of Alcoholic cirrhosis. List complications of cirrhosis (RGUHS Jan 2009, Jun 2009, Dec 2009)

10. Discuss the etiopathogenesis of cholelithiasis. Describe the morphology of different kinds of Gall stones. List the complications. (RGUHS June 2009)

1. An 8 year old boy came with history of puffiness of face with decreased urine output. His urine examination revealed numerous RBCs with mild proteinuria. Renal biopsy was performed which showed glomerular hypercellularity with neutrophils.

- a. What is your diagnosis
- b. Describe the pathogenesis and laboratory findings in this condition
- c. What are the features on immunofluorescence and electron microscopy

(Answer: Nephritic Syndrome) (NTRUHS 2019)

1. A 40 year old female patient presented with clinical manifestations of massive proteinuria, hypoalbuminemia, generalised edema with hyperlipidemia and lipiduria

- a) What is the provisional diagnosis?
- b) Mention the causes of this syndrome.
- c) Discuss the pathophysiology of the same.

(Answer : Nephrotic syndrome) (NTRUHS Aug 2009)

2. A 8 year old boy was admitted with malaise, fever, oliguria, coca cola-coloured Urine 2 weeks after recovery from sore throat. On examination, he was found to have peri orbital oedema & moderate hypertension

- a) What is the probable diagnosis?
- b) Describe the aetio pathogenesis of the condition?
- c) What is the morphology of the organ?

(Answer: Nephritic syndrome) (NTRUHS Mar 2008)

3. A 60 years old male having fever and weight loss presented with painless haematuria, flank pain and palpable mass in the left renal angle. CT scan confirmed a specific organ mass lesion, regional lymphnodes and renal vein involvement. Chest radiograph showed pulmonary “cannon ball” secondaries and his PCV is of 60%

- a. What is the provisional diagnosis
- b. Discuss the etiopathogenesis of the lesion
- c. Describe its morphology
- d. Mention various paraneoplastic syndromes produced by this lesion

(Answer: Renal cell carcinoma) (NTRUHS Jan 2013)

4. A 50year old male presented with facial puffiness and proteinuria 5mg/day. His serum albumin was found to be 2mg/dl. His urine showed fat globules.

- a. What is your diagnosis.
- b. Discuss in detail the causes of this clinical syndrome. Answer: Nephrotic syndrome (RGUHS)

1. 30 years old man with the H/o painless swelling in the right side of the scrotum for the past 6 months duration. Discuss about the differential diagnosis

(Answer : Germ cell tumor of testis) (NTRUHS MARCH/APRIL,2003)

1. Undescended testis/Cryptorchidism (NTRUHS July 2012)(RGUHS)

2. Classify testicular tumors. Describe etiology, morphology & clinical features of most common testicular tumors (RGUHS- Dec 2013)

45 Years female presents with post coital bleeding and foul smelling discharge per vagina. She has swelling inguinal region and weight loss suddenly

1.

1. What is your diagnosis
2. What is the etiopathogenesis of this condition
3. what are the morphological features

(Answer: Carcinoma cervix) (Pondicherry university 2019)

2. A 54-year old woman noted a 6-month history of progressive vaginal discharge sometimes blood tinged. She was 2 years post menopausal and earlier took oral contraceptives for 10 years. She complains of right back pain and right leg swelling. The per-speculum examination showed an unhealthy cervix with ulceration

- a). What is the most likely diagnosis?
- b). Write two (2) high risk, two (2) low risk microorganism & two (2) social factors associated with this lesion.
- c). Name the screening tests performed for it
- d). Describe the preventive measures.

(Answer: Carcinoma cervix) (NTRUHS July, 2014)

2. 35 year old female has 12 weeks amenorrhoea. She is married 1 year ago. On examination uterus size was larger and corresponding to 20 weeks gestation. She complains of passing grape like vesicles. Her blood and urine hCG levels are elevated than normal pregnancy.

- a) What is the provisional diagnosis
- b) Describe gross and microscopic picture of the lesion
- c) Discuss its complications.

(Answer: Hydatidiform mole) (NTRUHS October, 2008)

3) A 55 years old female presented with bleeding per vaginum and white discharge. P/v examination revealed unhealthy indurated and ulcerated cervix

- a) What is the probable diagnosis
- b) What laboratory test will confirm the diagnosis
- c) What is the histopathology of the disease?

(Answer: Carcinoma cervix) (NTRUHS March, 2005)

2. 45 year old lady presented with a painless swelling in the left breast for 3 months duration. On examination the swelling was firm, fixed to the overlying skin. Left axillary lymph nodes were enlarged. Fine needle aspiration of the swelling showed loosely cohesive cells with pleomorphic hyperchromatic nuclei and prominent nucleoli

- a) What is your diagnosis
- b) Describe the etiopathogenesis of this condition
- c) How will you classify this condition?
- d) what are prognostic factors for this condition?

(Answer: Breast carcinoma) (NTRUHS JULY, 2015)

3) 40 year old female presented with lump in the breast. The lump is hard and adhered to the underlying structures and axillary lymph nodes are enlarged

- a) What is the provisional diagnosis?
- b) How do you classify them?
- c) Discuss the etiology and pathogenesis of the lesion.

(Answer: Breast carcinoma) (RGUHS Dec 2018, NTRUHS Aug, 2010)

4) A 52 year old female presented with lump in the right breast which was noticed 6 months back. On examination of lump, it was firm-hard, fixed to underlying structures & skin with 5 palpable lymph nodes in the right axilla. After FNAC she underwent mastectomy.

- a. What is your probable diagnosis?
- b. Describe the etiopathogenesis of the condition.
- c. Write the morphology of the lesion in the breast.

(Answer: Breast carcinoma) (RGUHS – Jan 2009)

4. Classify Diabetes mellitus and pathogenesis of type I diabetes (Pondicherry university 2018)

1. A 25 year old man is admitted with swelling of the upper end of tibia. X-ray shows a turnover in the metaphyseal area of tibia with evidence of new bone formation.

- a. What is the probable diagnosis/
- b. Give the microscopic picture of the turnover with labeled diagram
- c. Name the organs where it metastasizes
- d. Classify the bone tumors

(Answer: Osteosarcoma) (NTRUHS 2018)

2. A 12 year old boy complained of pain and swelling of knee joint. On x-ray, a tibial metaphyseal lesion invading the cortex and showing periosteal elevation is seen.

- a. What is your most probable diagnosis?
- b. Describe the etiology of the condition.
- c. Describe the gross and microscopy of the condition.
- d. Describe the modes of spread of the lesion.

1. (Answer: Osteosarcoma)

3. A male aged 60 years who is a chronic smoker presented with history of slowly increasing severe exertional dyspnoea and weight loss. He is barrel-chested and dyspnoeic with prolonged expiration, sits forward in a hunched-over position and breaths through pursed lips

- a) What is the probable diagnosis?
- b) Mention the major types (classification) with appropriate diagrams
- c) Discuss the pathogenesis of the lesion
- d) Mention two causes of death in most of these patients

(Answer: Emphysema) (NTRUHS Jan, 2014)

4. An elderly male, chronic smoker presented with steadily progressive dyspnoea. On examination he was found to be barrel chested and dyspnoeic with prolonged Expiration, sits forward in a hunched over position and breaths through pursed Lips. Chest X-ray revealed hyperinflation and small heart

- a) What is the probable diagnosis ?
- b) Explain the role of smoking in the causation of the disease ?
- c) Describe the morphology of the organ involved ?

d) List the complications

(Answer: Emphysema)

(NTRUHS May 2007)

5. 60 years old man habituated to tobacco smoking came with history of cough, haemoptysis, dyspnoea, loss of weight, severe pain in the distribution of the ulnar nerve and Horner's syndrome. Mention various laboratory investigations to make a final diagnosis. Describe the etiopathology of the lesion

(Answer: lung carcinoma)

(NTRUHS Sep 2003)

4. A 40 year old female presented with history of chronic cough with profuse expectoration, occasional haemoptysis and also clubbing with coarse crepitation in right lung base.
- What is your probable diagnosis?
 - Discuss the etiopathogenesis & pathology of the target organ involved.

(Answer : Bronchiectasis)

(RGUHS, Jun 2010)

SHORT QUESTIONS (4 MARKS)

1. Pathogenesis and genetics of bronchial asthma

2.