

5. A patient developed cellulitis which was followed after a few weeks with impairment, ending up with acute glomerulonephritis. The organism obtained after culture was Beta hemolytic, Lancefield Group A cocci.
 - a. Name the bacteria causing the disease. (1)
 - b. What is the pathogenesis of the disease. (2)
 - c. Discuss the laboratory diagnosis of the disease. (2)

6. A 65 year old man presents with angina and dyspnea. He has a family history of hypercholesterolemia. Unfortunately despite thrombolytic therapy he dies.
 - a. What would you expect to see on light microscopic examination of cardiac tissue? (1)
 - b. What kind of injury is seen in his myocytes. (0.5)
 - c. What is difference between two types of injuries? (2.5)
 - d. Give two examples of apoptosis. (1)

7.
 - a. Define embolism? (1)
 - b. What are its different types. (2)
 - c. What is Virchow's triad and its role in thrombus formation. (2)

8. Define shock, Give pathogenesis of septic shock. (0.5, 1)
 - b. Enlist chemical mediators of inflammation. (2)
 - c. What is role of TNF and IL1 in inflammation (1.5)

9. A 55 year old diabetic man suffered from SLE, he is on steroid therapy, while working in a garden he injured himself and experienced a deep cut on his left hand. The wound failed to heal after two weeks.
 - a. What are the causes of delayed healing and likely complications in this patient. (2)
 - b. Enlist 2 other local and systemic factors that influence wound healing. (1)
 - c. What is difference between healing by first and second intention. (2)

10. A 30 year old male complained of fever and night sweats, fatigue, weight loss and shortness of breath for several months. A chest X ray revealed hilar lymphadenopathy. Physical examination revealed cervical lymphadenopathy. Biopsy was performed and contained granulomas.
 - a. Which kind of necrosis is seen in this setting and what are its different types. (2)
 - b. Enlist any four causes of granulomatous inflammation. (2)
 - c. Write down the description of a granuloma. (1)

14004

AZRA NAHEED MEDICAL COLLEGE
3rd Year MBBS, Pathology Term Exam
SEQ

Date: 12-4-2017

Marks: 50

Time allowed: 2 hours

1. A 28-year-old lab technician presents with a painful abscess on his right arm. The abscess is increasing day by day despite taking penicillin. Gram stain reveals the positive cocci in clusters. Catalase and Coagulase tests are positive.
 - a. What is the most likely organism? (1)
 - b. Name any four other typical diseases produced by this organism (2)
 - c. What is MRSA and its treatment? (2)

2. A 10 year old unimmunized child of a remote village develops fever, sore throat and cervical lymphadenopathy. On examination there was thick gray adherent membrane over the tonsil and throat. A provisional diagnosis of diphtheria was made.
 - a. Name the causative agent. What is the appearance on Gram staining. (2)
 - b. Discuss the mechanism of action of toxin produced by the organism. (2)
 - c. Name a gram positive rod associated with intake of cheese. (1)

3. A 65 year old man develops pneumonia. The organisms isolated from sputum are gram positive cocci, and show green or incomplete hemolysis on blood agar.
 - a. Name the likely organism causing this disease. (1)
 - b. Name the tests used to differentiate the alpha hemolytic Streptococci. (2)
 - c. Classify bacteria on the basis of hemolysis. (1)
 - d. What is lancefield grouping? (1)

4. A young hostel student was used to eating home canned food. She presented at the emergency department complaining of difficulty in speech and swallowing, along with diplopia and flaccid paralysis. She gave history of eating canned food without heating.
 - a. Name the causative agent. (0.5)
 - b. What is the pathogenesis of the disease? (2)
 - c. Name the other species of this organism and the diseases caused by them. (1.5)
 - d. What is the mode of prevention of disease? (1)

Q:1 (b) Local factor:-

- oxygenation
- Infection
- Foreign bodies
- Venous sufficiency

systemic factor:-

- age and gender
- sex hormones
- stress
- Diabetes
- nutrition
- ischemia
- obesity

Q:6 (b) Granulation tissue: It is a new connective tissue and microscopic blood vessels that form on the surface wound during healing process. Granulation tissue typically grows from base of wound and is able to fill wound of almost any size.

- Platelet-derived growth factor:
 - Promotes migration and proliferation of fibroblast.
 - Is chemotactic for monocytes.
- Epidermal growth factor:
 - Promotes growth of endothelial ~~cell~~, epithelial cells and fibroblast.

AzraNaheed Medical College, Lahore

Pathology Department 3rd Year MBBS (SEQ)

Dated 20/1/2017

Time: 45 min

Q-1 A 60 year old man had severe chest pain and was diagnosed with myocardial infarction on serum enzymes and ECG changes.

- Q-2 a- What are different phases of healing from necrotic tissue to scar formation and how does it differ from healing from a cut in skin (2.5)
- b- What are different factors affecting wound healing. (2.5) → site of wound, type of tissue, vascular age, sex, nutritional factor, immune sp
- Q-3 a- A 25 year old man is having cavitating lung lesion. Describe the cross talk between macrophage and lymphocyte for formation of a granuloma and draw a granuloma. (2, 1)
BY
- b- Name four causes of granulomatous inflammation. (2)
- Q-4 a- What are different chemical mediators of inflammation? (2)
- b- Describe the role of TNF and Gamma interferon in inflammation. (3)
- Q-5 a- A 23 years old boy had an accident and burnt his hand. What is the sequence of events in inflammation? (2.5) 3 events of inflammation.
- b- What is the most common event of inflammation after burn injury? (1) → vascular events
- c- What are different methods for killing of bacteria? (1.5)
- Q-6 a- What are different morphological patterns of inflammation. Give one example with each? (5)
- b- A 25 years old male had a surgery done on his hand. After one month the scar became big, what is the diagnosis? (1) ~~keloid~~ keloid
- Q-7 a- What is granulation tissue and what growth factors are responsible at different phases of healing. (0.5, 2)
- b- Describe the role myofibroblasts in wound contraction. (1.5)

Patho - Revision - 2013 - 14

Dept of Pathology, ANMC Lahore

Test-7 for supplementary students held on 1st October 2014

Total marks: 25

12/10/14

1. Define immunity & explain the functions of different cytokines. (5)
2. Define adaptive immunity + ~~describe~~ briefly describe its types. (5)
3. Define hypersensitivity. Give the mechanism of type III hypersensitivity reaction with two examples. (5)
4. A 35 years old female presented with painless enlargement of thyroid gland her serum contained irritating anti thyroid antibodies. (5)
5. What is your most likely diagnosis? (1)
6. List four organ specific autoimmune diseases. (4)
7. Describe the acquired Immuno-deficiency virus under following headings: (12)
- a) Pathogenesis of HIV infections. (3)
 - b) Opportunistic infections in AIDS patients. (3)
 - c) Diagrammatic representation of time course of HIV infection. (2)
 - d) Chemokines + their classification. (4)
8. Discuss the modes of transmission and laboratory diagnosis of Hepatitis C virus. (7)
9. Explain direct and indirect ELISA with the help of diagram. (2)
10. Severe Respiratory Stress 1/2 hour after intake of food
Which reaction? (1)

Batch - 1

Patho - Revision - 2013-14

Dept of Pathology, ANMC Lahore

Test-6 for supplementary students held on 29th September 2014

Time: 09:30-01:15

Total marks: 25

1. A previously healthy 3-4 year old girl develops a classical childhood illness. Which of the following primary viral infections of childhood is usually asymptomatic? Also write pathogenesis and pathology of the disease caused by this agent. (14)
- a. Varicella zoster virus
 - b. Epstein Barr virus
 - c. Rotavirus
 - d. Adenovirus H19
 - e. Rubella virus
2. What are important properties of Hepadna viruses? Explain pathogenesis and pathology of Hepatitis B virus. (12)
3. Write pathogenesis, pathology and laboratory diagnosis of Dengue virus. (11)
4. Define shock and its types. Explain the pathophysiology of shock. (4)
5. Define Hemostasis. Explain primary and secondary hemostasis. (4)

Batch -1

Patho - Practicles -

Dept of Pathology, ANIMC ²⁰¹³⁻¹⁴ Lahore

Practical Test of MBBS 3rd Year

Name: Hadia I. Iqbal

Dated: 11-04-2014

Roll No: 15199

Total Marks: 05

Marks Obtained:

Q 2. Discuss systemic effects of inflammation.
see different effects derived below

Q 1. What are the consequences of defective or excessive inflammation.

Q 4. (a) Enumerate the specialized structures outside the cell wall. (2)

(b) What are the important features of Spores and their medical implication. (3)

Q 1. What are the vital components of bacterial cell wall? Describe role of endotoxins in causing sepsis. (5)

Batch - 1

Enzymatic mediators

Prostaglandins table 2.5
Table 2.6

morphological patterns of

Role of Fig 2.24

Granulomatous inflammation

systemic infection: acute phase

Repair and injury.

Role of growth factors.

Phases of Repair
and Inflammation.

Fig 3.25,

3.26

Graph 2.12

Septic shock

cytotoxic chromobiosis.

endotoxin.

Pathophysiology of edema.

Neoplasia

differences of Benign/Malignant.
definition

metastasis. Theories.

oncogenes. Fig. Table.

Tumor markers.

staging or grading. P53.

Tumor Fig

suppressor genes.

Fig 7-40

Molecular phases of carcinogenesis
7.10 table.

Paraneoplastic syndrome,
7.1.

Table 5.1
Genetics 5.2

MBBS 1st Year (2nd Entry)
(Pathology Subjective Part)

Allowed: 2 hours

Total Marks: 75

Roll No:

Instructions:

- All subjective questions are to be attempted on the spot and returned to the invigilator within specified time after you have received the question paper.
- Neat hand writing and use of margins will increase the value and presentation of your paper.

Attempt all Questions. Each Question carries 5 marks

- Q1. a. Compare the characteristics of benign & malignant neoplasm. (05)
b. Write short note on tumor marker. (02)

- Q2. Write the principles and uses of the following laboratory investigations. (5)
a. Bile solubility test
b. CAMP test
c. Bile esculin hydrolysis test

- Q3. Explain structure of virus particles under the following heads. (05)
a. Symmetry of virus particles
b. Chemical composition of virus particles

- Q4. Explain the pathogenesis and pathology of Herpes Simplex virus 1 & 2 briefly. (05)

- Q5. a. A 25 years young male received sharp cut injury & in emergency ward, the wound was closed & approximated with surgical sutures. Her wound healing will take place by which intention? (01)
b. Describe morphological features of wound healing by primary union. (03)
c. What are the systemic & local factors affecting the wound healing. (01)

- Q6. Define immunity & explain the functions of different cytokines. (05)

(292)

Serological diff

Two types -

- ① Heterophile antibodies
early diagnosis of non-infectious mononucleosis
- ② EBV specific antibody Test

or
↓
Blisact
↓

B-lymphocyte

IGM-VCA antibody
response declines
early
IGG = late infection

Leuc

T-lymph

Immunity dec - strain of B5

② reactivate

③ It cause infectious mononucleosis
Chalm - fever, sore throat, lymph node
swelling and soreness, hepatitis

④ Cancers

EBV
causes
Burkitt's lymphoma,
Hodgkin's Lymphoma
Nasopharyngeal carcinoma

Best hand writing and use of margins will increase the outlook and present of your paper.

Attempt all Questions. Each Question carries 5 marks

Q1. a. Give a brief description on Etiological Factors of Neoplasia. (03) ✓
b. Enlist the Regulatory Genes involved in the pathogenesis of tumors. (02) ✓

Q2. a. What factors can delay the wound healing? (02) ✓
b. Give the name of growth factors which help in tissue repair and healing with at least one function. EGF, HGF, IGF, VEGF (03) ✓

Q3. How do we diagnose MRSA in the laboratory? Explain with the help of details of the tests performed for this purpose. (05)

Q4. Explain various general steps involved in virus replication cycle. (05)

Q5. Write about Epstein-Barr virus under the following headings. (05) ✓
a. Primary reaction ✓
b. Reactivation ✓
c. Infectious mononucleosis ✓
d. Cancers ✓
e. Serological diagnosis ✓

Q6. Write the morphological characteristics and virulence factors of *Neisseria gonorrhoeae*. (05)

Q7. a. Classify Gram negative rods on basis of source of infection. (03) ✓
b. Write down pathogenesis of legionnaire's disease. (02) ✓

Q7. Define granuloma. Give different examples of granulomatous inflammation. (5)

Q8. A young boy having a history of coming out, developed abdominal pain and dysentery. His stool sample showed blood and mucous in it. (04)
a. What is the most likely causative agent and its complication?
b. Draw and label the egg and trophozoite form of this parasite.

Q9. Define apoptosis. Give the schematic representation showing the intrinsic and extrinsic pathways involved in apoptosis. (05)

Q10. Write down clinical findings of *Strep. pyogenes*. (05)

Q11. Enumerate medically important species of *Clostridium*. Write down pathogenesis and clinical findings of *Clostridium tetani* infection. (05)

Q12. Enumerate medically important spirochetes and give an account of pathogenesis & clinical findings of *Treponema pallidum* infection. (05)

Q13. Give an account of clinical findings and laboratory diagnosis of dermatophytoses. (05)

Q14. a. Define virchow triangle. (01)
b. Explain the sequence of events that leads to Edema. (04)

Q15. a. Define mutation & different types of mutations. (03)
b. Write a note on tumours syndrome. (02)

- ① Self-sufficiency in growth
- ② Insensitivity of growth inhibitory signals
- ③ Evasion of cell death
- ④ Unlimited replicative potential
- ⑤ Development of sustained angiogenesis
- ⑥ Ability to invade and metastasize

Q-2

Classification of Enterobacteriaceae

