

Paper Code : 12004

BDS 2nd Year

University Main Examination – 2018

General Pathology and Microbiology

TIME: 3 hours

Maximum marks: 70

Note: Attempt all questions. Write answer in separate answer book for Part A and Part B. Explain your answer with appropriate diagrams.

Part A

(35 Marks)

(General Pathology)

- Q.1. Define Anaemia. Write aetiopathological classification of anaemia and write in brief laboratory approach in a case of anaemia. **(15 Marks)**
- Q.2. Write short notes on the following : **(5 Marks Each)**
- (a) Acute inflammation
 - (b) Jaw tumours
 - (c) Chronic venous congestion - lung
- Q.3. Multiple Choice Questions. Choose one correct answer. **(1 Mark Each)**
- (a) **Name the disease where ketone bodies are increased in urine-**
(i) Hyperthyroidism (ii) Rickets (iii) Thymoma (iv) Diabetes Mellitus
- (b) **Squamous cell carcinoma is characterised by -**
(i) Proliferation of pleomorphic atypical Squamous Epithelial Cells
(ii) Areas of Necrosis, Fibrosis, Keratin/Epithelial Pearl
(iii) Stromal and lymphatic invasion by carcinoma cells
(iv) All of the above
- (c) **Plummer Wilson Syndrome is found in -**
(i) Cu Deficiency
(ii) Folic Acid Deficiency
(iii) Ca Deficiency
(iv) Iron Deficiency
- (d) **Which of the following is the hallmark of Programmed Cell Death?**
(i) Apoptosis
(ii) Coagulation
(iii) Fibrinoid necrosis
(iv) Liquefaction necrosis
- (e) **Smudge Cells are found in -**
(i) Chronic Lymphocytic Leukemia
(ii) Acute Myeloid Leukemia
(iii) Myelodysplastic Syndrome
(iv) Chronic Myeloid Leukemia

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Part B
(Microbiology)

(35 Marks)

- Q.1. Write in brief about urinary tract infection and its laboratory diagnosis. (15 Marks)
- Q.2. Write short notes on the following : (5 Marks Each)
- (a) Lung abscess
 - (b) Hypersensitivity (I) reaction
 - (c) Amoebic dysentery
- Q.3. Multiple Choice Questions. Choose one correct answer. (1 Mark Each)
- (a) **Leishmania donovani (LD bodies) are seen in -**
 - (i) Megakaryocytes
 - (ii) Macrophages in Bone Marrow
 - (iii) Adipocytes of Bone Marrow
 - (iv) Periosteum of Bone Marrow Trabeculae
 - (b) **Granuloma is characterised with focal collection of aggregates of -**
 - (i) Mast Cells
 - (ii) Epitheloid Cells
 - (iii) Neutrophils
 - (iv) Eosinophils
 - (c) **Papilloma virus is more often associated with-**
 - (i) Medullary Carcinoma Thyroid
 - (ii) Glioblastoma Multiforme
 - (iii) Carcinoma Cervix
 - (iv) Malignant Fibrous Histiocytoma
 - (d) **In which of the following conditions CSF Glucose is markedly decreased?**
 - (i) Acute Pyogenic (Bacterial) Meningitis
 - (ii) Cerebrovascular Accidents
 - (iii) Glioblastoma multiforme
 - (iv) Meningial Carcinomatosis
 - (e) **Chronic Hepatitis C infection is associated with -**
 - (i) Astrocytoma
 - (ii) Gastrointestinal Stromal Tumour
 - (iii) Hepatocellular Carcinoma
 - (iv) Medullary Carcinoma Thyroid

Paper Code : 12004

BDS Second Year

University Supplementary Examination – February 2019

General Pathology and Microbiology

Paper First

TIME: 3 hours

Maximum marks: 70

Note: Attempt all questions. Draw neat labelled diagrams wherever necessary. Write answer in separate answer book for Part A and Part B.

Part A

(35 Marks)

Q.1. Define and classify anaemia. Describe laboratory diagnosis of megaloblastic anaemia. **(15 Marks)**

Q.2. Write short notes on the following : **(5 Marks Each)**

- (a) Apoptosis
- (b) Retinoblastoma gene
- (c) Pleomorphic adenoma

Q.3. Attempt all the multiple choice questions and choose one correct answer. **(1 Mark Each)**

(a) Iron deficiency causes

- (i) Megaloblastic anaemia
- (ii) Microcytic hypochromic anaemia
- (iii) Macrocytic anaemia
- (iv) Sideroblastic Anaemia

(b) Basophilia is seen in

- (i) AML
- (ii) ALL
- (iii) CML
- (iv) CLL

(c) Haemolysis is seen in

- (i) Sickle cell disease
- (ii) Thalassemia
- (iii) Both of above
- (iv) None of above

(d) Serum Calcium levels are normal in

- (i) Metastatic calcification
- (ii) Dystrophic calcification
- (iii) Both of above
- (iv) None of above

(e) Myeloblasts are seen in

- (i) Polymorphonuclear leucocytosis
- (ii) Lymphoma
- (iii) Lymphocytosis
- (iv) Acute myeloid leukaemia

Conti..2..

Part B**(35 Marks)**

- Q.1. Tabulate the hepatitis viruses and their mode of transmission. Describe measures to prevent their transmission and infection. **(15 Marks)**
- Q.2. Write short Notes on the following: **(5 Marks Each)**
- Classification of Streptococci
 - Sterilization of dental instruments
 - Candidiasis
- Q.3. Multiple Choice Questions. **(1 Mark Each)**
- Which of the culture medium stimulates rapid growth of *C. diphtheria*?**
 - Potassium tellurite blood sugar
 - L.J. Medium
 - Chocolate agar
 - Lofler's serum slope
 - An Immunoglobulin can cross the placental barrier is**
 - IgM
 - IgE
 - IgG
 - IgA
 - All are enriched media except**
 - Blood agar
 - Chocolate agar
 - Loffler serum slope
 - Bile salt agar
 - CAMP reaction can be used to identify:**
 - S. pyogenes*
 - S. mitis*
 - S. agalactiae*
 - S. equisimilis*
 - Laboratory diagnosis of enteric fever during first week of infection is possible by:**
 - Widal test
 - Stool culture
 - Blood culture
 - Urine culture

Paper Code : 12004
BDS Second Year
University Main/Supple. Examination – November 2020
General Pathology and Microbiology

Paper First

TIME: 3 hours

Maximum marks: 70

Note: Attempt all questions. Draw neat labelled diagrams wherever necessary. Write answer in separate answer book for Part A and Part B. Parts of a question must be answered together.

Part A

(35 Marks)

(Pathology)

- Q.1. Define inflammation. Describe the role of chemical mediators of inflammation. **(15 Marks)**
- Q.2. Write short notes on the following : **(5 Marks Each)**
- (a) Lab diagnosis of CML (Chronic Myeloid Leukemia)
 - (b) Differences between dystrophic and metastatic calcification
 - (c) Ameloblastoma
- Q.3. Attempt all the multiple choices questions and choose one correct answer. **(1 Mark Each)**
- (a) Most common tumour of salivary gland is -**
- (i) Oncocytoma
 - (ii) Muco-epidermoid carcinoma
 - (iii) Pleomorphic Adenoma Complex
 - (iv) Warthin's Tumour
- (b) Immune/ mediated hypersensitivity reaction is -**
- (i) Type - 1
 - (ii) Type - 2
 - (iii) Type - 3
 - (iv) Type - 4
- (c) Osteosarcoma is a tumour of -**
- (i) Smooth Muscle
 - (ii) Fat
 - (iii) Cartilage
 - (iv) Bone
- (d) Premalignant lesions of oral cavity are all except -**
- (i) Oral submucosal fibrosis
 - (ii) Leucoplakia
 - (iii) Pyogenic granuloma
 - (iv) Erythroplakia
- (e) Megaloblastic anaemia is caused by deficiency of -**
- (i) Iron
 - (ii) Vitamin B₁₂ & Folic Acid
 - (iii) Both (i) and (ii)
 - (iv) None

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Part B
(Microbiology)

(35 Marks)

- Q.1. Describe morphology, clinical course of disease, oral lesions and lab diagnosis of syphilis. **(15 Marks)**
- Q.2. Write short Notes on the following: **(5 Marks Each)**
- (a) Oral candidiasis
 - (b) Universal precautions against blood-borne viruses in dental practice
 - (c) Chemical Disinfectants
- Q.3. Multiple Choice Questions. **(1 Mark Each)**
- (a) Tinea versicolor is caused by -**
- (i) Candida albicans
 - (ii) Malassezia furfur
 - (iii) Aspergillus niger
 - (iv) None of these
- (b) Which of the following are acid fast structures?**
- (i) Bacterial spores
 - (ii) Mycobacterium
 - (iii) Nocardia
 - (iv) All of these
- (c) Negri bodies are seen in -**
- (i) Reo virus
 - (ii) Rota virus
 - (iii) Rabies virus
 - (iv) Retro virus
- (d) In malaria, the form of plasmodia that is transmitted from mosquito to human is the -**
- (i) Sporozoites
 - (ii) Gametocytes
 - (iii) Merozoites
 - (iv) Hypnozoites
- (e) Primary mediators in anaphylaxis -**
- (i) Histamine
 - (ii) Serotonin
 - (iii) Heparin
 - (iv) All of these

Paper Code : 12004
University Examination – August 2021
BDS Second Year
General Pathology and Microbiology

Paper First

TIME: 3 hours

Maximum marks: 70

Note: Attempt all questions. Draw neat labelled diagrams wherever necessary. Write answer in separate answer book for Part A and Part B. Parts of a question must be answered together.

Part A

(35 Marks)

(Pathology)

- Q.1. Define granulomatous inflammation, write in brief the pathogenesis of tuberculous granuloma formation and its differential diagnosis. **(15 Marks)**
- Q.2. Write short notes on the following : **(5 Marks Each)**
- (a) Giant cells
 - (b) Difference between necrosis and apoptosis
 - (c) Difference between benign and malignant tumors
- Q.3. Multiple Choice Questions. **(1 Mark Each)**
- (i) Which is the most commonly used fixative in histopathological specimens?**
- (a) Gluteraldehyde
 - (b) Formaldehyde
 - (c) Alcohol
 - (d) Picric Acid
- (ii) Necrosis with putrefaction is called as-**
- (a) Desiccation
 - (b) Gangrene
 - (c) Liquefaction
 - (d) Coagulative necrosis
- (iii) Organelle which plays a pivotal role in apoptosis is-**
- (a) Cytoplasm
 - (b) Golgi complex
 - (c) Mitochondria
 - (d) Nucleus
- (iv) Metastatic calcification is most often seen in -**
- (a) Lymph nodes
 - (b) Lungs
 - (c) Kidney
 - (d) Liver
- (v) The most radiosensitive cells are -**
- (a) Neutrophils
 - (b) Lymphocytes
 - (c) Erythrocytes
 - (d) Megakaryocytes

Conti..2..

Part B
(Microbiology)

(35 Marks)

- Q.1. Classify hepatitis virus. Describe antigenic structure and laboratory diagnosis of infections caused by hepatitis B virus. **(15 Marks)**
- Q.2. Write short Notes on the following: **(5 Marks Each)**
- (a) Staphylococcal food poisoning
 - (b) Loeffler's syndrome
 - (c) Black water fever
- Q.3. Multiple Choice questions. **(1 Mark Each)**
- (i) **Which of the following fungi are important opportunistic pathogen in immunocompromised patients?**
- (a) Pneumocystis Jiroveci
 - (b) Penicillium Marneffeii
 - (c) Candida Albicans
 - (d) All of the above
- (ii) **Which of the following is a diploid cell line?**
- (a) Hela
 - (b) W1 - 38
 - (c) McCoy
 - (d) BHK-21
- (iii) **CD8 antigen is present on :**
- (a) T helper cells
 - (b) T suppressor cells
 - (c) Both of the above
 - (d) None of the above
- (iv) **Which is the selective medium used for isolation of corynebacterium diphtheriae?**
- (a) Tellurite blood agar
 - (b) Loeffler's serum slope
 - (c) Lowenstein-Jensen medium
 - (d) Chocolate agar
- (v) **Which of the following vaccines is killed vaccine?**
- (a) Measles vaccine
 - (b) Rubella vaccine
 - (c) Rabies vaccine
 - (d) Mumps vaccine

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Paper Code : 12004
University Supplementary Examination – February 2021
BDS Second Year
General Pathology and Microbiology

First Paper

TIME: 3 hours

Maximum marks: 70

Note: Attempt all questions. Draw neat labelled diagrams wherever necessary. Write answer in separate answer book for Part A and Part B.

Part A

(35 Marks)

(Pathology)

Q.1. Write morphological classification of anaemias. Enumerate causes of iron deficiency anaemia and discuss in brief laboratory diagnosis of iron deficiency anaemia. **(15 Marks)**

Q.2. Write short notes on the following : **(5 Marks Each)**

- (a) Types of necrosis
- (b) Difference between eosinophils and neutrophils
- (c) Methods of spread of tumors

Q.3. Attempt all the multiple choice questions and choose one correct answer. **(1 Mark Each)**

(a) **The fixative used in histopathology is -**

- (i) 10% buffered neutral formalin
- (ii) Bouins fixative
- (iii) Gluteraldehyde
- (iv) Ethyl alcohol

(b) **Apoptosis is alternatively called -**

- (i) Ischemic cell death
- (ii) Programmed cell death
- (iii) Post traumatic cell death
- (iv) All

(c) **Earliest changes of neoplastic transformation as seen at microscopic level is called -**

- (i) Hyperplasia
- (ii) Metaplasia
- (iii) Dysplasia
- (iv) Carcinoma in situ

(d) **The earliest feature of tuberculosis is -**

- (i) Caseation
- (ii) Recruitment of lymphocytes
- (iii) Formation of giant cells
- (iv) Granuloma Formation

(e) **Sure sign of malignancy is -**

- (i) Mitoses
- (ii) Polychromasia
- (iii) Nuclear pleomorphism
- (iv) Metastasis

Part B
(Microbiology)

(35 Marks)

- Q.1. Describe virulence factors, non suppurative complications and laboratory diagnosis of streptococcus pyogenes. (15 Marks)
- Q.2. Write short Notes on the following: (5 Marks Each)
- (a) Monoclonal antibodies
 - (b) Inclusion bodies
 - (c) Lab. diagnosis of dengue virus
- Q.3. Multiple Choice Questions. (1 Mark Each)
- (a) **Which of the following hepatitis virus can be transmitted by sexual route?**
- (i) Hepatitis A virus
 - (ii) Hepatitis C virus
 - (iii) Hepatitis E virus
 - (iv) All of the above
- (b) **Which of the following fungi infects reticuloendothelial system?**
- (i) Aspergillus fumigatus
 - (ii) Histoplasma capsulatum
 - (iii) Trichophyton robrum
 - (iv) All of the above
- (c) **Ramsay-Hunt syndrome can be caused by-**
- (i) Herpes-zoster virus
 - (ii) Herpes simplex virus
 - (iii) Cytomegalovirus
 - (iv) Epstein-barr virus
- (d) **Which of the following pigment is diagnostic of pseudomonas aeruginosa?**
- (i) Pyocyanin
 - (ii) Fluorescin
 - (iii) Pyorubin
 - (iv) Pyomelanin
- (e) **Which is the first immunoglobulin to appear in response to an antigen?**
- (i) IgG
 - (ii) IgM
 - (iii) IgA
 - (iv) IgE

Paper Code : 12004

University Supplementary Examination – December 2021

BDS Second Year

General Pathology and Microbiology

Paper First

TIME: 3 hours

Maximum marks: 70

Note: Attempt all questions. Draw neat labelled diagrams wherever necessary. Write answer in separate answer book for Part A and Part B. Parts of a question must be answered together.

Part A

(35 Marks)

(Pathology)

- Q.1. What is the definition of Necrosis? What are the various types of necrosis and examples of each? What are the gross and microscopic features of necrosis?
(15 Marks)
- Q.2. Write short notes on the following : **(5 Marks Each)**
- (a) Hodgkin's Lymphoma
 - (b) Lab diagnosis of Myocardial Infarction
 - (c) Difference between healing by primary and secondary intention
- Q.3. Attempt all Multiple Choice Questions and choose one correct answer.
(1 Mark Each)
- (i) **Which is not seen with Apoptosis?**
- (a) Cell shrinkage
 - (b) Nuclear condensation
 - (c) Inflammation
 - (d) None of the above
- (ii) **Leucocyte alkaline phosphatase (Lap) score is increased in -**
- (a) AML
 - (b) CML
 - (c) CLL
 - (d) Myeloid leukemoid reaction
- (iii) **Metaplasia is -**
- (a) Increase in number of cells
 - (b) Decrease in number of cells
 - (c) Change of one epithelium to another
 - (d) Increase in size of cell
- (iv) **Which of the following gene is known as the guardian of the genome?**
- (a) Rb
 - (b) P53
 - (c) KRAS
 - (d) PTEN
- (v) **Lipoma is a tumor of -**
- (a) Fat cells
 - (b) Smooth muscle cells
 - (c) Nerve cells
 - (d) Skeletal muscle cells

Conti..2..

Part B
(Microbiology)

(35 Marks)

Q.1. Classify Streptococcus. Describe the Virulence factors, pathogenicity and Laboratory diagnosis of Group A Streptococcus. Differentiate between Suppurative and Non-Suppurative manifestations of Streptococcus Pyogenes.

(15 Marks)

Q.2. Write short Notes on the following:

(5 Marks Each)

- (a) Oropharyngeal Candidiasis
- (b) Drug Resistance in Mycobacterium Tuberculosis
- (c) Post Exposure Prophylaxis for HIV

Q.3. Multiple Choice questions.

(1 Mark Each)

(i) **Malaria pigment is formed by -**

- (a) Parasite
- (b) Haemoglobin
- (c) Bilirubin
- (d) Chromatin

(ii) **Which is a form of cold Sterilization?**

- (a) Infrared rays
- (b) Steam Sterilization
- (c) Gamma Rays
- (d) U.V. rays

(iii) **Type I hypersensitivity is mediated by which of the following immunoglobulins?**

- (a) Ig A
- (b) Ig G
- (c) Ig M
- (d) Ig E

(iv) **LD Bodies are -**

- (a) Amastigotes of Leishmania donovani inside RBCs
- (b) Giant cells seen in Leishmaniasis
- (c) Degenerative lesions seen in Leishmaniasis
- (d) Amastigotes of Leishmania donovani inside macrophages

(v) **Robertson cooked meat broth is an example of -**

- (a) Enriched media
- (b) Enrichment media
- (c) Anaerobic Media
- (d) Nutrient Media

Paper Code : 12004

University Examination – August-September 2022

BDS Second Year

General Pathology and Microbiology

Paper First

TIME: 3 hours

Maximum marks: 70

Note: Attempt all questions. Draw neat labelled diagrams wherever necessary. Write answer in separate answer book for Part A and Part B. Parts of a question must be answered together.

Part A

(35 Marks)

(Pathology)

- Q.1. What is the definition of Necrosis? What are the various types of necrosis and examples of each? (15 Marks)
- Q.2. Write short notes on the following : (5 Marks Each)
- (a) Giant cells
 - (b) Difference between necrosis and apoptosis
 - (c) Difference between benign and malignant tumors
- Q.3. Attempt all the multiple choice questions and choose one correct answer. (1 Mark Each)
- (I) **Most common tumour of salivary gland is -**
- (a) Oncocytoma
 - (b) Muco-epidermoid carcinoma
 - (c) Pleomorphic Adenoma Complex
 - (d) Warthin's Tumour
- (II) **Immune/ mediated hypersensitivity reaction is -**
- (a) Type - 1
 - (b) Type - 2
 - (c) Type - 3
 - (d) Type - 4
- (III) **Osteosarcoma is a tumour of -**
- (a) Smooth Muscle
 - (b) Fat
 - (c) Cartilage
 - (d) Bone
- (IV) **Premalignant lesions of oral cavity are all except -**
- (a) Oral submucosal fibrosis
 - (b) Leucoplakia
 - (c) Pyogenic granuloma
 - (d) Erythroplakia
- (V) **Megaloblastic anaemia is caused by deficiency of -**
- (a) Iron
 - (b) Vitamin B₁₂ & Folic Acid
 - (c) Both (a) and (b)
 - (d) None

Conti..2..

Part B
(Microbiology)

(35 Marks)

- Q.1. Classify hepatitis virus. Describe antigenic structure and laboratory diagnosis of infections caused by hepatitis B virus. (15 Marks)
- Q.2. Write short Notes on the following: (5 Marks Each)
- (a) Oropharyngeal Candidiasis
 - (b) Drug Resistance in Mycobacterium Tuberculosis
 - (c) Post Exposure Prophylaxis for HIV
- Q.3. Multiple Choice Questions. (1 Mark Each)
- (I) **Tinea versicolor is caused by -**
- (a) Candida albicans
 - (b) Malassezia furfur
 - (c) Aspergillus niger
 - (d) None of these
- (II) **Which of the following are acid fast structures?**
- (a) Bacterial spores
 - (b) Mycobacterium
 - (c) Nocardia
 - (d) All of these
- (III) **Negri bodies are seen in -**
- (a) Reo virus
 - (b) Rota virus
 - (c) Rabies virus
 - (d) Retro virus
- (IV) **In malaria, the form of plasmodia that is transmitted from mosquito to human is the -**
- (a) Sporozoites
 - (b) Gametocytes
 - (c) Merozoites
 - (d) Hypnozoites
- (V) **Primary mediators in anaphylaxis -**
- (a) Histamine
 - (b) Serotonin
 - (c) Heparin
 - (d) All of these

Paper Code : 12004

Supplementary University Examination – December 2022

BDS Second Year

General Pathology and Microbiology

Paper First

TIME: 3 hours

Maximum marks: 70

Note: Attempt all questions. Draw neat labelled diagrams wherever necessary. Write answer in separate answer book for Part A and Part B. Parts of a question must be answered together.

Part A

(35 Marks)

(Pathology)

- Q.1. Define acute leukemia. Laboratory diagnosis of acute myelogenous leukemia. **(15 Marks)**
- Q.2. Write short notes on the following : **(5 Marks Each)**
- (a) Paraneoplastic syndrome
 - (b) Pathogenesis of diabetes mellitus
 - (c) Healing by primary and secondary intention
- Q.3. Multiple Choice Questions. **(1 Mark Each)**
- (i) **Ghon's complex is seen in -**
- (a) Primary tuberculosis
 - (b) Histoplasmosis
 - (c) Actinomycosis
 - (d) Brucellosis
- (ii) **Permanent dilatation and destruction of distal airways is -**
- (a) Bronchitis
 - (b) Emphysema
 - (c) Asthma
 - (d) Pneumoconiosis
- (iii) **Microcytic Hypochromic anemia is found in -**
- (a) B₁₂ deficiency
 - (b) Congenital anemia
 - (c) Folate deficiency
 - (d) Iron deficiency anemia
- (iv) **Immune complex mediated hypersensitivity (HS) is**
- (a) Type I HS
 - (b) Type II HS
 - (c) Type III HS
 - (d) Type IV HS
- (v) **Giant cell tumor of the bone is known as -**
- (a) Osteoclastoma
 - (b) Paget's disease
 - (c) Ameloblastoma
 - (d) Osteomyelitis

Conti..2..

Part B
(Microbiology)

(35 Marks)

- Q.1. Discuss the mode of transmission, pathogenicity, clinical manifestations and laboratory diagnosis of pulmonary tuberculosis. **(15 Marks)**
- Q.2. Write short Notes on the following: **(5 Marks Each)**
- (a) Hypersensitivity
 - (b) Malarial parasite
 - (c) Mode of transmission and Laboratory diagnosis of HIV
- Q.3. Multiple Choice questions. **(1 Mark Each)**
- (i) **Which of the following is an enriched culture medium?**
- (a) Blood agar
 - (b) Urease
 - (c) Sabouraud's dextrose agar
 - (d) Lowenstein Jensen media
- (ii) **All of the following are part of cell mediated immune response, except**
- (a) Phagocytes
 - (b) T lymphocytes
 - (c) IgM
 - (d) Natural killer cells
- (iii) **Which of the following is not a DNA virus?**
- (a) Herpes simplex virus
 - (b) Hepatitis B
 - (c) HIV
 - (d) Cytomegalovirus
- (iv) **Which of the following is incorrect for diagnosis of candidiasis?**
- (a) Budding yeast cells
 - (b) Pseudohyphae
 - (c) Germ tube test
 - (d) Dimorphic fungus
- (v) **All are physical methods of sterilization, except**
- (a) Autoclave
 - (b) ETO
 - (c) Boiling
 - (d) Filtration