

**VINAYAKA MISSION'S RESEARCH FOUNDATIONS, SALEM**  
(Deemed to be University)

**B. OPTOMETRY DEGREE EXAMINATION – August 2019**  
Second Year

**MICROBIOLOGY AND PATHOLOGY**

Time: Three hours

Maximum: 80 marks

Use Separate answer books for Part A and Part B

**PART – A - MICROBIOLOGY**

Time: One and half an hour

Maximum: 40 marks

**SECTION – A**

I. Choose the correct answer for the following :

(5 x 1 = 5)

1. Who is the father of chemotherapy
  - (a) Robert Koch
  - (b) Louis Pasteur
  - (c) Paul ehrlich
  - (d) Joseph Lister
2. Temperature and time period used in hot air oven is:
  - (a) 160° C for two hours
  - (b) 140° C for two hours
  - (c) 160° C for one hour
  - (d) None of the above.
3. All of the following are live vaccines except:
  - (a) BCG
  - (b) Sabin vaccine
  - (c) MMR
  - (d) TAB vaccine
4. Production of diphtheria toxin by bacteria can be demonstrated by
  - (a) Subcutaneous test
  - (b) intracutaneous test
  - (c) Elek's gel precipitation test
  - (d) All of the above
5. The leading cause of preventable blindness in the world is caused by:
  - (a) Chlamydia trachomatis
  - (b) Haemophilus influenza
  - (c) Neisseria gonorrhoeae
  - (d) Staphylococcus aureus

(p.t.o.)

II. Write True or False: (5 x 1 = 5)

1. Sterilization is the process of rendering an object germ-free but destroying all living organisms on a surface
2. Viruses replicate by binary fission.
3. Staphylococcus is classified as a gram-positive bacteria
4. Influenza is caused by a bacillus
5. Loa loa filariasis is a skin and eye disease caused by the nematode worm Loa loa.

III. Fill in the blanks : (5 x 1 = 5)

1. Staining material of gram positive bacterium is \_\_\_\_\_
2. Culture media for fungi are \_\_\_\_\_
3. How much of globulin is present in human serum \_\_\_\_\_
4. Acquired immunity is \_\_\_\_\_
5. \_\_\_\_\_ is the most common cause of infectious retinochroiditis in humans

#### SECTION – B

II. Write short notes on any **THREE** of the following: (3 x 5 = 15)

1. Serum inspissations
2. Write short notes on Haptens
3. Write briefly about micrococci
4. Write short notes on pathogenesis of candidiasis
5. Write short notes on Adeno virus

#### SECTION – C

III. Write an essay on any **ONE** of the following: (1 x 10 = 10)

1. Discuss in detail the laboratory diagnosis of diphtheria.
2. Write short notes on (I) Hot air oven. (II) Autoclave.

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**PART – B – PATHOLOGY**

Time: One and half an hour

Maximum: 40 marks

**SECTION - A**

I. Multiple Choice questions:

(5 x 1 = 5)

1. Cyanotic heart disease
  - a. Mitral stenosis
  - b. Fallots tetralogy
  - c. Aortic aneurysm
  - d. SBE
  
2. Packed cell volume
  - a. Wintrobe's tube
  - b. Sodium citrate
  - c. Hb pipette
  - d. Neubaur chamber
  
3. Glaucoma
  - a. Hypertension
  - b. Diabetic
  - c. Optic nerve cuffing
  - d. Hypotension
  
4. Cataract
  - a. Corneal opacity
  - b. Lens opacity
  - c. Retinal damage
  - d. Chroid hemorrhage
  
5. Corneal ulcer
  - a. Atherosclerosis
  - b. Collagen disease
  - c. Acanthamaeba infection
  - d. Hypertension

II. State whether the following statements are **TRUE** or **FALSE**: (5 x 1 = 5)

1. Nutmeg liver – seen in chronic venous congestion of lung.
2. Congenital syphilis in new born usually occurs in – maternal primary and secondary syphilis.
3. Lipofuscin – endogenous pigment.
4. Vitamin A deficiency is associated with scurvy.
5. Blepharitis – Inflammation of eyelid.

--(4)--

III. Fill in the blanks:

(5 x 1 = 5)

1. Sleeping sickness caused by \_\_\_\_\_.
2. Ochochersiasis can \_\_\_\_\_.
3. Band keratopathy is \_\_\_\_\_.
4. Site of squamous cell carcinoma in eye ball \_\_\_\_\_.
5. Chalazion \_\_\_\_\_ lesion.

**SECTION - B**

IV. Answer any **THREE** of the following:

(3 x 5 = 15)

1. Squamous cell carcinoma.
2. Tuberculoid leprosy.
3. Haemophilia.
4. Etiopathogenesis of Panophthalmitis.

**SECTION - C**

V. Discuss in detail on any **ONE** of the following questions:

(1 x 10 = 10)

1. Retinoblastoma – Write about genetic factors, incidence pathology, clinical features and outcome.
2. Describe stages of shock and write about septic shock.

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(Sl.No.M22219)