

April-2001

[KD 120]

Sub. Code : 2017

M.D. DEGREE EXAMINATION.

Branch IV — Microbiology

(New/Revised Regulations)

Paper III — VIROLOGY AND PARASITOLOGY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Classify the genus plasmodia. Discuss the life cycle pathogenicity and lab diagnosis of malaria. Add a note on recent malarial vaccines. (25)
 2. Describe the human immuno deficiency type I virus. What is the present position as regards AIDS in India? (25)
 3. Write briefly on : (5 × 10 = 50)
 - (a) Rabies vaccines.
 - (b) Ebola virus.
 - (c) Viral gastroenteritis.
 - (d) Dermal leishmaniasis.
 - (e) Hydatid disease.
-

November-2001

[KE 120]

Sub. Code : 2017

M.D. DEGREE EXAMINATION.

(Old/New/Revised Regulations)

Branch IV — Microbiology

Paper III — VIROLOGY AND PARASITOLOGY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Classify Retroviruses, listing out human pathogens. Describe the morphology, antigenic variation of HIV and discuss the laboratory diagnosis of HIV infection. (25)
 2. What are the methods to improve the chances of finding malarial parasite in blood? Add a note on quantitative estimation and new approaches to diagnose malaria. (25)
 3. Write short notes on : (5 × 10 = 50)
 - (a) Coproculture for nematode larvae.
 - (b) Unconventional infections agents.
 - (c) Pseudo-hookworm disease.
 - (d) Nephropathia epidemica.
 - (e) Continuous cell lines.
-

March-2002

KG 120]

Sub. Code : 2017

M.D. DEGREE EXAMINATION.

Branch IV — Microbiology

Paper III — VIROLOGY AND PARASITOLOGY

Time : Three hours , -Maximum : 100 marks

Describe the morphology, classification and pathogenicity of picorna viruses. (25)

Describe the unique features of strongyloides infection in man. Discuss the different methods of diagnosis of strongyloides infection. (25)

Write briefly on : (5 × 10 = 50)

- (a) Prions.
 - (b) Hanta viruses.
 - (c) Recombinant viral vaccines.
 - (d) Plasmodium falciparum.
 - (e) Intestinal flukes.
-

[KH 120]

Sub. Code : 2017

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch IV — MICROBIOLOGY

Paper III — VIROLOGY AND PARASITOLOGY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Classify viviparous parasites. Discuss the pathogenicity and laboratory diagnosis of human filariasis. (25)
 2. Discuss influenza viruses, its pathogenicity and laboratory diagnosis. Briefly state the usefulness of influenza vaccines. (25)
 3. Write briefly on : (5 × 10 = 50)
 - (a) *Toxoplasma gondii*
 - (b) Concentration techniques of examination of stool for ova and cyst
 - (c) *Larva migrans*
 - (d) Anti viral agents
 - (e) Hepatitis C virus.
-

April-2003

[KI 120]

Sub. Code : 2017

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch IV — Microbiology

Paper III — VIROLOGY AND PARASITOLOGY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Describe the developments in diagnosis of falciparum malaria and its complications. Add a note on status of malarial vaccines. (25)
 2. What are picorna viruses? Discuss pathogenicity structure, properties of poliomyelitis virus with special emphasis on strategies of pulse polioprogramme. (25)
 3. Write briefly on : (5 × 10 = 50)
 - (a) Cerebral cysticercosis
 - (b) Lassa fever
 - (c) Toxoplasma gondii
 - (d) Infections mononucleosis
 - (e) Antiviral compounds for HIV infections.
-

[KJ 120]

Sub. Code : 2017

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch IV — Microbiology

Paper III — VIROLOGY AND PARASITOLOGY

Time : Three hours , Maximum : 100 marks

Theory : Two hours and forty minutes Theory : 80 marks

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

M.C.Q. must be answered **SEPARATELY** on the answer sheet provided as per the instructions on the first page of M.C.Q. Booklet.

Answer **ALL** questions.

Draw suitable diagrams wherever necessary.

1. Discuss transfusion associated hepatitis viruses with laboratory diagnosis and interpretation of serological markers. (15)
2. Discuss in detail the larval cestode infections. (15)
3. Write short notes on : (10 × 5 = 50)
 - (a) Human prion diseases.
 - (b) H HV8.

(c) Pathogenesis and Laboratory diagnosis of Dengue haemorrhagic fever.

(d) HAART.

(e) Collection, transport and preparation of specimens for virological examination.

(f) Endemic haematuria.

(g) Non morphologic diagnosis of parasitic infections.

(h) Immunity in malaria and strategies for vaccine design.

(i) Primary amoebic meningo encephalitis.

(j) Zoonotic filarial infections.

[KK 120]

Sub. Code : 2017

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch IV — Microbiology

Paper III — VIROLOGY AND PARASITOLOGY

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

A. Essay : (2 × 15 = 30)

(1) Describe the pathogenesis and prophylaxis of measles.

(2) Discuss the pathogenesis and laboratory diagnosis of hydatid disease.

B. Write short notes on : (10 × 5 = 50)

(1) Prions

(2) Cell culture

- (3) Larva migrans
 - (4) Primary amoebic meningoencephalitis
 - (5) Paragonimus westermani
 - (6) Antigenic drift and antigenic shift
 - (7) Microfilaria
 - (8) Varicella zoster virus
 - (9) Human diploid cell vaccine
 - (10) Pathogenesis of malaria.
-

[KL 120]

Sub. Code : 2017

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch IV — Microbiology

Paper III — VIROLOGY AND PARASITOLOGY

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
Forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay :

(2 × 15 = 30)

(1) Describe the structure, pathogenesis and laboratory diagnosis of HIV. Add a note on the National strategies of HIV testing in India.

(2) Enumerate the filarial nematodes that cause human disease and describe the pathogenesis, laboratory diagnosis of *Wuchereria bancrofti*. Add a note on modern methods of diagnosis.

II. Write short notes on :

(10 × 5 = 50)

- (a) Primary amoebic meningo encephalitis.
- (b) Malarial vaccines.
- (c) Concentration techniques in stool examination.
- (d) *Toxoplasma gondii*.
- (e) *Pneumocystis Carinii*.
- (f) Human prion diseases.
- (g) HAART.
- (h) Techniques of identification of viral cultures.
- (i) Influenza viruses.
- (j) Mechanism of action of antiviral agents.

[KM 120]

Sub. Code : 2017

II. Write short notes on :

(10 x 5 = 50)

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch IV — Microbiology

Paper III — VIROLOGY AND PARASITOLOGY

Time : Three hours

Maximum : 100 marks

Theory : Two hours and forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay :

(2 × 15 = 30)

(1) Describe the morphology, life cycle, laboratory diagnosis and treatment of visceral leishmaniasis.

(2) Classify human herpes viruses. Describe the pathogenesis, clinical features, laboratory diagnosis, treatment and prophylaxis of herpes simplex infection.

(a) Tissue culture.

(b) Avian influenza.

(c) Serological markers of Hepatitis B infection.

(d) Oncogenic DNA viruses.

(e) HDCS vaccines.

(f) Babesiosis.

(g) *Loa loa*.

(h) Zoonotic filariasis.

(i) Amoebic keratitis.

(j) Three nonbile stained ova that can be detected in human feces.

[KO 120]

Sub. Code : 2017

M.D. DEGREE EXAMINATION.

Branch IV — Microbiology

Paper III — VIROLOGY AND PARASITOLOGY

Time : Three hours **Maximum : 100 marks**

Theory : Two hours and forty minutes	Theory : 80 marks
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M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay : (2 × 15 = 30)

(1) Enumerate the parasitic infections of Liver. Describe the life cycle, pathogenesis and laboratory diagnosis of *Echinococcus granulosus*.

(2) Classify Enteroviruses. Discuss the epidemiology, pathogenesis and laboratory diagnosis of Poliomyelitis. Add a note on Pulse Polio programme.

II. Write Short notes on : (10 × 5 = 50)

- (a) Onchogenic viruses.
- (b) Epstein-Barr virus.
- (c) Laboratory diagnosis of Falciparum Malaria.
- (d) Nonneural vaccines against Rabies.

- (e) Viral Gastroenteritis.
- (f) Cultivation of parasites.
- (g) *Enterobius vermicularis*.
- (h) Opportunistic infections in AIDS patients.
- (i) Varicella - Zoster virus.
- (i) *Balantidium coli*.

[KP 120]

Sub. Code : 2017

III. Write short notes on :

(6 x 5 = 30)

M.D. DEGREE EXAMINATION.

Branch IV — Microbiology

Paper III — VIROLOGY AND PARASITOLOGY

Time : Three hours

Maximum : 100 marks

**Theory : Two hours and
forty minutes**

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

Essay Questions.

I. Classify Herpesviridae. Describe the pathogenesis and laboratory diagnosis of Herpes simplex viruses.

(20)

II. (a) Describe the life cycle pathogenesis and laboratory diagnosis of *Wucheraria bancrofti*. (15)

(15)

(b) Describe the current developments in malaria vaccinology. (15)

(15)

(a) Parvo virus infections in humans.

(b) Hepatitis C virus.

(c) Pathogenesis and laboratory diagnosis of
Coxsackie viruses.

(d) Free living pathogenic amoebae.

(e) Ocular Filariasis.

(f) Pathogenesis and laboratory diagnosis of Dengue shock syndrome.

[KQ 117]

Sub. Code : 2017

M.D. DEGREE EXAMINATION.

Branch IV — Microbiology

VIROLOGY AND PARASITOLOGY

Common to

Paper III — (Old/New/Revised Regulations)

(Candidates admitted from 1988 – 1989 onwards)

and

**Paper III — (For candidates admitted
from 2004 – 2005 onwards)**

Time : Three hours

Maximum : 100 marks

**Theory : Two hours and
forty minutes**

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay :

1. Enumerate viruses infecting central nervous system. Discuss Epidemiology and Pathogenicity of viruses infecting central nervous system. (20)

2. Describe the morphology, life cycle, pathogenicity and laboratory diagnosis of falciparum malaria. (15)

3. Discuss newer laboratory investigations in parasitic infections. (15)

II. Write Short notes on : (6 × 5 = 30)

- (a) Free living amoebae
 - (b) Tissue cestodes
 - (c) Giardiasis
 - (d) Slow viruses
 - (e) Viral vaccines
 - (f) Interferons.
-

[KR 119]

Sub. Code : 2016

M.D. DEGREE EXAMINATION.

Branch IV — Microbiology

VIROLOGY AND PARASITOLOGY

Common to

Paper III — (Old/New/Revised Regulations)

(Candidates admitted upto 2003-04)

and

Paper III — (For candidates admitted from 2004-2005 onwards)

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw diagrams wherever necessary.

I. Essays :

1. Enumerate transfusion transmitted viruses. Discuss in detail transfusion transmitted hepatitis with special reference to Laboratory diagnosis and prevention. (5 + 15 = 20)

2. Enumerate the larval cestode infections. Briefly discuss the life cycle, mode of infection and laboratory diagnosis of these parasites. (15)

3. Classify Human Herpes viruses. Write on clinical features, lab diagnosis of Herpes Simplex. Write a note on Herpes virus types 6, 7, 8. (15)

II. Write short notes on : (6 × 5 = 30)

(a) Hanta virus.

(b) Prions.

(c) Malarial vaccines.

(d) Pseudo hookworm disease.

(e) Dirofilariasis.

(f) Avian influenza.

MARCH 2008

[KS 119]

Sub. Code : 2016

M.D. DEGREE EXAMINATION.

Branch IV — Microbiology

Paper III — VIROLOGY AND PARASITOLOGY

Common to all candidates

Q.P. Code. 202016

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

Draw diagrams wherever necessary.

- I. Essay : (2 × 20 = 40)
1. List the zoonotic viral infections. Discuss in detail the virology, pathogenesis, laboratory diagnosis and prevention of Rabies.
 2. Examination of feces for detection of parasitic infections.
- II. Write short notes on : (10 × 6 = 60)
1. Morphology and life cycle of toxoplasma gondii.
 2. Differentiating characters of larvae in stool.
 3. Cysticercosis.
 4. Baylisascaris procyonis.
 5. Endemic Hematuria.
 6. Cell culture for viruses.
 7. Vaccine designs for HIV.
 8. Rodent borne viral diseases.
 9. Antiviral chemotherapy.
 10. H5N1 virus.
-

March 2009

[KU 119]

Sub. Code: 2016

M.D. DEGREE EXAMINATION

**Branch IV – MICROBIOLOGY
(Common to all candidates)**

Paper III – VIROLOGY AND PARASITOLOGY

Q.P. Code : 202016

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

I. Essay questions : (2 x 20 = 40)

1. List the protozoan parasites causing diarrhea. Describe the laboratory diagnostic methods to identify them.
2. Give a detailed account of persistent viral infections of CNS.

II. Write short notes on : (10 x 6 = 60)

1. Haemorrhagic fever.
2. Pulse polio programme.
3. Hepatitis E virus.
4. Drug resistant malaria.
5. Primary amoebic meningoencephalitis.
6. Angiostrongyliasis.
7. Zoonotic filarial diseases.
8. TORCH complex.
9. HIV surveillance programme.
10. Sparganosis.

September 2009

[KV 119]

Sub. Code: 2016

M.D. DEGREE EXAMINATION

**Branch IV – MICROBIOLOGY
(Common to all candidates)**

Paper III – VIROLOGY AND PARASITOLOGY

Q.P. Code : 202016

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

I. Essay questions : (2 x 20 = 40)

1. Write in detail the structure, pathogenesis, laboratory diagnosis and prevention of rabies virus infection.
2. Name the parasites associated with HIV related diarrhea. Write in detail the life-cycle, laboratory diagnosis and treatment of cryptosporidiosis.

II. Write short notes on : (10 x 6 = 60)

1. Babesia microti
2. Defective viruses
3. Cysticercosis
4. Cercaria
5. Microfilaria
6. HIV vaccine
7. Molluscum contagiosum
8. Congenital rubella syndrome
9. Viral hemorrhagic fever
10. Cyclops

March 2010

[KW 119]

Sub. Code: 2016

M.D. DEGREE EXAMINATION

**Branch IV – MICROBIOLOGY
(Common to all candidates)**

Paper III – VIROLOGY AND PARASITOLOGY

Q.P. Code : 202016

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

I. Essay questions : (2 x 20 = 40)

1. Enumerate the arboviral diseases prevalent in India. Discuss the epidemiology, pathogenesis and laboratory diagnosis of dengue haemorrhagic fever. Add a note on the control measures.
2. Discuss the immunology, pathogenesis and laboratory diagnosis of falciparum malaria. Add a note on malarial vaccines.

II. Write short notes on : (10 x 6 = 60)

1. Laboratory diagnosis of leishmaniasis.
2. Larval cestode infections.
3. Coccidian parasites causing diarrhoea.
4. Slow viral diseases.
5. Avian influenza virus.
6. Live viral vaccines.
7. Human herpes viruses 6,7,8.
8. Interferons.
9. HIV vaccines.
10. Giardiasis.

September 2010

[KX 119]

Sub. Code: 2016

M.D. DEGREE EXAMINATION

Branch IV – MICROBIOLOGY

Paper III – VIROLOGY AND PARASITOLOGY

(Common to all candidates)

Q.P. Code : 202016

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

I. Essay questions :

(2 X 20 = 40)

1. Describe in detail the Antigenic structure of HIV.
2. Discuss the laboratory diagnosis of Intestinal and Extra intestinal Amoebiasis.

II. Write short notes on :

(10 X 6 = 60)

1. Elementary Bodies.
2. Swine flu vaccine.
3. Diagram of different Protozoal cysts.
4. Opportunistic parasites in AIDS.
5. Microfilariae.
6. Dengue fever.
7. Australia antigen.
8. Sedimentation technique of stool examination.
9. Hepatitis vaccines.
10. Cytomegalovirus.

MAY 2011

[KY 119]

Sub. Code: 2016

**M.D. DEGREE EXAMINATION
BRANCH IV – MICROBIOLOGY
VIROLOGY AND PARASITOLOGY**

Q.P. Code : 202016

**Time : 3 hours
(180 Min)**

Maximum : 100 marks

Answer ALL questions in the same order.

	Pages (Max.)	Time (Max.)	Marks (Max.)
I. Essay:			
1. Describe the morphology, pathogenesis and lab diagnosis of Adenovirus.	6	15	10
2. How do you classify intestinal Flagellates? Describe the morphology, clinical features and lab diagnosis of each one of them.	6	15	10
II. Short Questions:			
1. Haemagglutination test.	3	8	5
2. Dengue Virus.	3	8	5
3. Hepatitis E virus.	3	8	5
4. Viral haemorrhagic fevers.	3	8	5
5. Oncogenes.	3	8	5
6. SARS.	3	8	5
7. Taenia Solium.	3	8	5
8. Subcutaneous filariasis.	3	8	5
III. Reasoning Out:			
1. Parvovirus B19 infection can cause aplastic crisis in patients having chronic hemolytic anemia.	4	10	5
2. Molecular piracy cell regulatory genes is a striking feature of the virus Human Herpes virus 8.	4	10	5
3. Dengue haemorrhagic fever or Dengue Shock syndrome occurs in patients acquiring type 2 infection following type 1 infection.	4	10	5
4. Salicylate is contra indicated in children with flu-like symptoms due to influenza A, B and Varicella – Zoster.	4	10	5
IV. Very Short Answers :			
1. Quantitative assay of infectivity.	1	4	2
2. Culture of malarial parasite.	1	4	2
3. Congenital toxoplasmosis.	1	4	2
4. Fairley's test.	1	4	2
5. Spargonosis.	1	4	2
6. Hymenolepis diminuta.	1	4	2
7. Geohelminths.	1	4	2
8. Operculated eggs.	1	4	2
9. Recrudescence and relapse.	1	4	2
10. Culture for L.donovani.	1	4	2

October 2011

[KZ 119]

Sub. Code: 2016

**M.D. DEGREE EXAMINATION
BRANCH IV – MICROBIOLOGY
VIROLOGY AND PARASITOLOGY**

Q.P. Code : 202016

**Time : 3 hours
(180 Min)**

Maximum : 100 marks

Answer ALL questions in the same order.

I. Essay :

**Pages Time Marks
(Max.) (Max.) (Max.)**

- | | | | |
|--|---|----|----|
| 1. Enumerate Hepatotropic viruses.
Write in detail about the laboratory diagnosis and prophylaxis of Hepatitis B virus. | 6 | 15 | 10 |
| 2. Classify filarial parasites.
Write in detail about the laboratory diagnosis of W.bancrofti. | 6 | 15 | 10 |

II. Short Questions:

- | | | | |
|---------------------------|---|---|---|
| 1. Swine flue. | 3 | 8 | 5 |
| 2. HIV vaccine. | 3 | 8 | 5 |
| 3. Hanta virus. | 3 | 8 | 5 |
| 4. Molluscum contagiosum. | 3 | 8 | 5 |
| 5. Espundia. | 3 | 8 | 5 |
| 6. Babesiosis. | 3 | 8 | 5 |
| 7. Guinea worm disease. | 3 | 8 | 5 |
| 8. Microsporidia. | 3 | 8 | 5 |

III. Reasoning Out:

- | | | | |
|---|---|----|---|
| 1. Splash over the eye while conducting delivery. | 4 | 10 | 5 |
| 2. Needle stick injury with HBsAg positive blood. | 4 | 10 | 5 |
| 3. Diagnostic aspiration is not recommended in hydatid disease. | 4 | 10 | 5 |
| 4. Praziquantel is given along with corticosteroids in cysticercosis. | 4 | 10 | 5 |

IV. Very Short Answers :

- | | | | |
|-----------------------|---|---|---|
| 1. Viral plaques. | 1 | 4 | 2 |
| 2. Guearnieri bodies. | 1 | 4 | 2 |
| 3. Window period. | 1 | 4 | 2 |
| 4. JC virus. | 1 | 4 | 2 |
| 5. Virion. | 1 | 4 | 2 |
| 6. Prepatent period. | 1 | 4 | 2 |
| 7. Recrudescence. | 1 | 4 | 2 |
| 8. Axenic culture. | 1 | 4 | 2 |
| 9. Buffy coat. | 1 | 4 | 2 |
| 10. Hypnozoites. | 1 | 4 | 2 |

April 2012

[LA 119]

Sub. Code: 2016

**M.D. DEGREE EXAMINATION
BRANCH IV – MICROBIOLOGY
PAPER III – VIROLOGY AND PARASITOLOGY
Q.P. Code : 202016**

**Time : 3 hours
(180 Min)**

Maximum : 100 marks

Answer ALL questions in the same order.

	Pages (Max.)	Time (Max.)	Marks (Max.)
I. Essay:			
1. Describe the Morphology, Laboratory diagnosis and Prevention of Rabies Virus.	9	15	10
2. Write about the Morphology, Life cycle and Laboratory diagnosis of Echinococcus granulosus.	9	15	10
II. Short Questions:			
1. Enumerate the continuous cell lines and its uses.	3	8	5
2. Describe the Structure of Orthomyxovirus.	3	8	5
3. What are Prions? List the diseases caused by prions.	3	8	5
4. Describe the lesions caused by Molluscum contagiosum and its lab diagnosis.	3	8	5
5. Describe the morphology and life cycle of Balantidium coli.	3	8	5
6. Describe the Life cycle of Paragonimus westermani.	3	8	5
7. Discuss the morphology and lab diagnosis of Isospora belli.	3	8	5
8. Describe the Lab diagnosis of Toxoplasma gondii.	3	8	5
III. Reasoning Out:			
1. Why Antibody detection by ELISA for HIV is negative during window period.	5	10	5
2. Why Orthomyxovirus has the ability to cause Pandemics.	5	10	5
3. In areas endemic for Guinea worm infection why people are advised to drink boiled water.	5	10	5
4. Why night smears are better for the diagnosis of Lymphatic Filariasis.	5	10	5
IV. Very Short Answers :			
1. List four major antigens of HIV.	1	4	2
2. Enumerate four viruses causing diarrhea.	1	4	2
3. Name two newer anti-virals used in the treatment and prevention of Influenza.	1	4	2
4. Mention the strain which causes Bird-flu.	1	4	2
5. Enumerate four live attenuated viral vaccines.	1	4	2
6. List two parasites affecting the red blood cells.	1	4	2
7. Name two infections caused by Trichomonas vaginalis.	1	4	2
8. Name two parasitic disease where Cyclops acts as intermediate host.	1	4	2
9. Mention four complications caused due to infection by Plasmodium falciparum.	1	4	2
10. Name two intradermal tests used for diagnosing parasitic diseases.	1	4	2

(LC 119)

APRIL 2013

Sub. Code: 2016

M.D. DEGREE EXAMINATION
BRANCH IV – MICROBIOLOGY
PAPER – III – VIROLOGY AND PARASITOLOGY
Q.P. Code : 202016

Time: Three Hours

Maximum: 100 marks

I. Essay:

(2X10=20)

1. What are the general properties of arboviruses? Describe briefly on arboviral infections in India.
2. Describe the life cycle of Plasmodium falciparum.

II. Short Questions:

(8X5=40)

1. Negri bodies
2. Viral hemorrhagic fevers
3. Interferons
4. Suckling mice
5. Caprozoic amoeba
6. Cutaneous larva migrans
7. Anisakis marina
8. Ectopic Ascariasis

III. Reasoning Out:

(4X5=20)

1. Ultraviolet irradiation not to be used for production of killed viral vaccines.
2. Irrelevant immunoglobulins protect Cytomegalovirus against specific Immunoglobulins.
3. There is no relapse in Plasmodium falciparum infections.
4. Elephantiasis is the end result of wuchereria infection.

IV. Very Short Answers:

(10X2=20)

1. Primary cell cultures.
2. Viruses causing latent infections.
3. Von Magnus phenomenon
4. Antigenic shift
5. How primaquine prevents relapse in malaria?
6. Swimmers itch
7. Bile stained Eggs.
8. Viviparous parasites.
9. Measly beef
10. Microfilariae

[LD 119]

OCTOBER 2013

Sub. Code: 2016

M.D. DEGREE EXAMINATION

BRANCH IV – MICROBIOLOGY

PAPER III – VIROLOGY AND PARASITOLOGY

Q.P. Code : 202016

Time: Three Hours

Maximum: 100 marks

I. Essay:

(2 x 10 = 20)

1. Discuss transfusion associated hepatitis viruses with laboratory diagnosis and interpretation of serological markers.
2. Name the parasites associated with HIV related diarrhea. Write in detail the life-cycle, laboratory diagnosis and treatment of cryptosporidiosis.

II. Short Questions:

(8 x 5 = 40)

1. SARS.
2. Microfilariae.
3. Dengue fever.
4. Giardiasis.
5. Malaria vaccines.
6. Molluscum contagiosum.
7. Congenital rubella syndrome.
8. Cyclops.

III. Reasoning Out:

(4 x 5 = 20)

1. Diagnostic aspiration is not recommended in hydatid disease.
2. Orthomyxovirus has the ability to cause Pandemics.
3. Trichomoniasis management requires both the partners to be treated.
4. HIV vaccines are yet to be a success.

IV. Very Short Answers:

(10 x 2 = 20)

1. JC virus.
2. Virion.
3. Operculated eggs.
4. Recrudescence and relapse.
5. TORCH infection.
6. Haemorrhagic fever.
7. Pulse polio programme.
8. Rodent borne viral diseases.
9. Dirofilariasis.
10. Pseudo hookworm disease.

(LE 119)

APRIL 2014

Sub. Code:2016

**M.D. DEGREE EXAMINATION
BRANCH IV - MICROBIOLOGY
Paper – III - VIROLOGY & PARASITOLOGY
Q.P.Code: 202016**

Time: Three Hours

Maximum: 100 marks

I. Essay Questions: (2X10=20)

1. Describe the morphology, laboratory diagnosis and vaccines of Influenza virus.
2. Describe the morphology, life cycle and laboratory diagnosis of Taenia solium.

II. Short Questions: (8X5=40)

1. Rota virus.
2. Laboratory diagnosis of Dengue.
3. Rabies vaccine.
4. Viral inclusion bodies.
5. Bacteriophage.
6. *Balantidium coli*.
7. *Trichomonas vaginalis*.
8. Formal ether sedimentation technique.

III. Reasoning Out: (4X5=20)

1. Viruses cannot be grown on any inanimate culture medium.
2. Small pox vaccination is not given as mass immunization for prevention.
3. Paragonimus westermani eggs are seen in the sputum.
4. Hookworm infection causes iron deficiency anaemia.

IV. Very Short Answers: (10X2=20)

1. Human Herpes virus type 8.
2. Yolk sac of embryonated hens egg.
3. Nipah virus.
4. Dane particle.
5. Single stranded DNA virus.
6. *Balamuthia mandrillaris*.
7. *Babesia microti*.
8. Black fly.
9. Non bile stained parasitic eggs.
10. Cyclops.

(LF 119)

OCTOBER 2014

Sub. Code:2016

**M.D. DEGREE EXAMINATION
BRANCH IV - MICROBIOLOGY
PAPER III - VIROLOGY AND PARASITOLOGY
Q.P.Code: 202016**

Time: Three Hours

Maximum: 100 marks

I. Essay Questions:

(2 x 10 = 20)

1. Enumerate viruses causes causing Hepatitis. Discuss in detail pathogenesis, lab diagnosis and prophylaxis of Hepatitis B viruses. Add a note on recent concepts about viral hepatitis.
2. Mention parasitic zoonotic diseases. Describe the morphology, life cycle, pathogenesis and lab diagnosis of Echinococcus granulosus.

II. Short Questions:

(8 x 5 = 40)

1. Ebola virus.
2. Cultivation of viruses.
3. Examination of blood for microfilaria and its interpretations.
4. Granulomatous amoebic encephalitis.
5. Types of specimens to be sent for virus diagnosis.
6. Japanese encephalitis.
7. Schistosoma hematobium.
8. Stool concentration methods.

III. Reasoning Out:

(4 x 5 = 20)

1. Several markers have been described for differentiating wild strains of polio virus from the attenuated strains.
2. Haemagglutination is a convenient method of detection and assay of influenza virus.
3. Pseudocyst of Toxoplasma gondii is responsible for causing extensive tissue damage to the tissue.
4. This worm a habitual blood sucker is primarily responsible for anaemia.

IV. Very Short Answers:

(10 x 2 = 20)

1. Trophozoite induced malaria.
2. Tzanck smear.
3. Common syndromes associated with Adenovirus infection.
4. Defective viruses.
5. Xenodiagnosis.
6. Delhi Boil.
7. Enumerate developmental stages of Trypanosomatid flagellates.
8. Egg of Clonorchis sinensis.
9. Zidovudine.
10. Anisakiasis.

[LG 119]

APRIL 2015

Sub. Code: 2016

M.D. DEGREE EXAMINATION

BRANCH IV – MICROBIOLOGY

PAPER III – VIROLOGY AND PARASITOLOGY

Q.P. Code : 202016

Time: Three Hours

Maximum: 100 marks

Answer ALL questions in the same order.

I. Essay:

(2 x 10 = 20)

1. Enumerate the Zoonotic viral infections. Discuss in detail the morphology, pathogenesis, laboratory diagnosis and prophylaxis of Rabies.
2. Classify Trematodes. Write in detail the morphology, life cycle, pathogenesis, and laboratory diagnosis of Schistosoma haematobium.

II. Short Questions:

(8 x 5 = 40)

1. Genital parasitic infections.
2. Interferons.
3. Human Papilloma virus.
4. Blood examination in Parasitic infections.
5. Laboratory diagnosis of Leishmaniasis.
6. Malarial vaccines.
7. Post Exposure Prophylaxis in HIV.
8. Hanta Virus.

III. Reasoning Out:

(4 x 5 = 20)

1. People are advised to drink boiled water in endemic Guinea worm infection.
2. Nocturnal smears are better in the diagnosis of filariasis.
3. Non enveloped viruses are generally resistant to ether.
4. Latent infections are more common in Herpes virus infection.

IV. Very Short Answers:

(10 x 2 = 20)

1. Dengue Shock syndrome.
2. Defective viruses.
3. Recrudescence.
4. Australia Antigen.
5. Prions.
6. Operculated eggs.
7. Anisakis marina.
8. Sparganosis.
9. Parasites causing haematuria.
10. Eosinophilic meningoencephalitis.

(LI 119)

APRIL 2016

Sub. Code:2016

**M.D. DEGREE EXAMINATION
BRANCH IV – MICROBIOLOGY
PAPER III – VIROLOGY AND PARASITOLOGY
Q.P.Code: 202016**

Time: Three Hours

Maximum: 100 Marks

I. Essay Questions:

(2 x 10 = 20)

1. Write the definition and classification of Arboviruses and explain in detail about the pathogenesis and lab diagnosis of tick borne Arboviral disease.
2. Enumerate opportunistic parasitic infections in AIDS patient. Write detail about the immunopathogenesis and laboratory diagnosis of *Toxoplasma gondii* in HIV patients.

II. Short Questions:

(8 x 5 = 40)

1. Zika virus.
2. Zymodemes.
3. *Balamuthia mandrillaris*.
4. Viral inclusion bodies.
5. Antigenic properties of Rota virus.
6. Serological markers of Hepatitis B viral infection.
7. Explain the egg counting techniques in stool specimen.
8. Vaccine for Human Papilloma virus.

III. Reasoning Out:

(4 x 5 = 20)

1. Even after the control of Arboviruses in one area during summer, it will disseminate among humans during winter in the same area. Discuss the reasons?
2. What are the difficulties encountered in the preparation of Influenza vaccine? Add a note on the newer approaches in the preparation of Influenza vaccine.
3. Why *Microfilaria* is not demonstrable in peripheral blood examination in case of occult filariasis and what are other methods of diagnosing occult filariasis?
4. Explain how watery diarrhoea is produced by *Cryptosporidium* infection in HIV patient?

IV. Very Short Answers:

(10 x 2 = 20)

1. Pseudo virion.
2. Leishmanoma.
3. Sub acute sclerosing panencephalitis.
4. Name four methods of preservation of stool specimen for ova and cyst.
5. Structure of Ebola virus.
6. Paratenic host.
7. Herpangina.
8. What is continuous cell line? Give two examples with its sources.
9. Haemadsorption.
10. *Schistosoma intercalatum*.

M.D. DEGREE EXAMINATION
BRANCH IV – MICROBIOLOGY
PAPER III – VIROLOGY AND PARASITOLOGY
Q.P.Code: 202016

Time: Three Hours

Maximum: 100 Marks

I. Essay Questions:

(2 x 10 = 20)

1. Discuss on viral vaccines.
2. Discuss in detail Intestinal and extra intestinal amoebiasis.

II. Short Questions:

(8 x 5 = 40)

1. MERS.
2. Viral oncogens.
3. Permanent staining technique in stool examination.
4. Laboratory diagnosis of HIV.
5. Coccidian parasites causing diarrhea.
6. HHV 8.
7. Balantidium coli.
8. Hepatitis C virus.

III. Reasoning Out:

(4 x 5 = 20)

1. Thick and thin smears used in the diagnosis of malaria.
2. In hydatid disease diagnostic aspiration not recommended.
3. Testing for HIV during clinical procedures is not mandatory.
4. Infection control practices should be followed in Parvovirus B19 infection.

IV. Very Short Answers:

(10 x 2 = 20)

1. Espundia.
2. Guarnieri bodies.
3. Ts mutant.
4. Xenodiagnosis.
5. Diploid cell culture.
6. Measly beef.
7. Casoni's test.
8. Buffy coat.
9. Calabar swelling.
10. Oseltamivir.

(LK 119)

MAY 2017

Sub. Code:2016

**M.D. DEGREE EXAMINATION
BRANCH IV – MICROBIOLOGY
PAPER III – VIROLOGY AND PARASITOLOGY
Q.P.Code: 202016**

Time: Three Hours

Maximum: 100 Marks

I. Essay Questions:

(2 x 10 = 20)

1. Describe Viral haemorrhagic fever and write about morphology, Laboratory diagnosis and management of Ebola virus.
2. Classify filarial parasites. Describe life cycle, Laboratory diagnosis and prophylaxis of Wuchereria bancrofti.

II. Short Questions:

(8 x 5 = 40)

1. Suckling mice.
2. Cytomegalo virus.
3. Hepatitis E virus.
4. Viral Gastroenteritis.
5. Role of cercariae in parasitic infection.
6. Drug resistance in malaria.
7. Primary amoebic meningoencephalitis.
8. Life cycle and Laboratory diagnosis of Toxoplasma gondii.

III. Reasoning Out:

(4 x 5 = 20)

1. Efficacy of Post Exposure Prophylaxis in HIV if administered within two hours of exposure.
2. Pulse polio programme in eradication of Polio.
3. Prognosis is poor in disseminated strongyloidiasis.
4. Natural resistance to malaria is seen in Sickle cell anaemia.

IV. Very Short Answers:

(10 x 2 = 20)

1. Angiostrongyliasis.
2. Swimmers' itch.
3. Larva currens.
4. Entero test.
5. HPV vaccine.
6. MERS.
7. Von Magnus phenomenon.
8. Window period.
9. Yellow fever vaccine.
10. Co cultivation.

M.D. DEGREE EXAMINATION
BRANCH IV – MICROBIOLOGY
PAPER III – VIROLOGY AND PARASITOLOGY
Q.P.Code: 202016

Time: Three Hours

Maximum: 100 Marks

I. Essay Questions:

(2 x 10 = 20)

1. Classify Human herpes viruses. Describe the pathogenesis, clinical features, lab diagnosis, treatment and prophylaxis of Herpes simplex virus infection.
2. Describe unique features of Strongyloides stercoralis infection in man. Discuss different methods of diagnosis of strongyloidiasis.

II. Short Questions:

(8 x 5 = 40)

1. Lab diagnosis and prophylaxis of poliomyelitis.
2. Inclusion bodies.
3. Lab diagnosis of Wuchereria Bancroft.
4. Bala muthia mandrillaris.
5. Slow virus diseases.
6. Classify Togaviridae and discuss viruses causing febrile illnesses.
7. Cysticercus cellulosae.
8. Lung fluke.

III. Reasoning Out:

(4 x 5 = 20)

1. The heterophile Paul-Bunnell test is positive only in disease caused by the Epstein-Barr virus.
2. In haemagglutination inhibition tests, different kinds of non specific inhibitors have been identified in sera.
3. This infection is common amongst those eating raw or insufficiently cooked 'measly pork'.
4. The term Pseudo hookworm is often used in case of infection caused by this parasite.

IV. Very Short Answers:

(10 x 2 = 20)

1. Therapeutic malaria.
2. Neonatal varicella.
3. Von Magnus phenomenon.
4. Virioids.
5. Sexually transmitted viral diseases.
6. Hepatitis B vaccine.
7. Adler's test.
8. Guinea worm blister.
9. Anal swab for enterobiasis.
10. Visceral larva migrans.

M.D. DEGREE EXAMINATION
BRANCH IV – MICROBIOLOGY
PAPER III – VIROLOGY AND PARASITOLOGY

Q.P.Code: 202016

Time: Three Hours

Maximum: 100 Marks

I. Essay: (2 x 15 = 30)

1. Mention the dead end viral infection. Brief about pathogenesis and laboratory diagnosis of Rabies. Add a note on Rabies vaccination.
2. Enumerate haemoparasites. Discuss in detail about the conventional and newer laboratory methods for diagnosis of Malaria. Add a note on advances in the field of Malarial vaccines.

II. Short notes: (10 x 5 = 50)

1. Meyer-Kuwener syndrome.
2. QBC (Quantitative buffy coat) method.
3. Stool concentration methods.
4. Viral inclusion bodies.
5. Electron Microscopy.
6. Serum markers of Hepatitis B virus and the clinical importance.
7. Continuous cell culture.
8. SARS (Severe acute respiratory syndrome).
9. Oncogenic parasitic infection.
10. Larva migrans.

III. Reasoning Out: (4 x 5 = 20)

1. Nucleic acid detection methods are preferred over other laboratory methods in diagnosis of Pandemic Influenza.
2. Primary Varicella antibodies are not protective in Reactivation.
3. Trophozoite detection is difficult in stored stool sample in diagnosis of Entamoeba histolytica.
4. Soil sample screening to be done during Hookworm infestation as a part of public Health importance.

M.D. DEGREE EXAMINATION

BRANCH IV – MICROBIOLOGY

PAPER III – VIROLOGY AND PARASITOLOGY

Q.P. Code: 202016

Time: Three Hours

Maximum: 100 Marks

I. Essay:

(2 x 15 = 30)

1. Enumerate viruses infecting central nervous system. Discuss epidemiology and pathogenicity of viruses infecting central nervous system.
2. Discuss newer laboratory investigations in parasitic infections.

II. Short notes:

(10 x 5 = 50)

1. HHV 8.
2. Angiostrongyliasis.
3. Invitro cultivation of parasites.
4. Unconventional infectious agents.
5. Pathogenesis and lab diagnosis of Cocksackie viruses.
6. Vaccines against parasitic diseases.
7. Nephropathia epidemica.
8. Zoonotic filariasis.
9. Viral vaccines.
10. Sparganosis.

III. Reasoning Out:

(4 x 5 = 20)

1. Salicylates are contraindicated in children with Flu-like symptoms.
2. Recurrence of malaria is not common in Plasmodium falciparum.
3. Post exposure prophylaxis should be followed in needle stick injury with HBsAg positive blood.
4. Microbiological diagnosis should be included in children with Nocturnal enuresis.

M.D. DEGREE EXAMINATION
BRANCH IV – MICROBIOLOGY
PAPER III – VIROLOGY AND PARASITOLOGY

Q.P. Code: 202016

Time: Three Hours

Maximum: 100 Marks

I. Essay:

(2 x 15 = 30)

1. Discuss the laboratory diagnosis of swine flu. Add a note on pandemic preparedness program. Write about flu vaccines.
2. Discuss the laboratory diagnosis and treatment of extra intestinal amoebiasis.

II. Short notes:

(10 x 5 = 50)

1. PEG- Interferons.
2. Plasmodium knowlesi.
3. Strongyloidiasis in immune-competent and immune-compromised patients.
4. HIV vaccines.
5. Preservation of stool specimens in parasitology.
6. Concentration techniques in diagnosis of haemo parasites.
7. Varicella zoster.
8. Hanta virus.
9. Vaccinia necrosum and eczema vaccinatum.
10. Uses of light microscopy in virology.

III. Reasoning Out:

(4 x 5 = 20)

1. Disposal of the body of HIV positive person died in road traffic accident should follow protocol.
2. Artemisin resistant Plasmodium falciparum malaria.
3. Saline preparation of stool for parasites gives only preliminary reports.
4. Hepatitis C virus outbreak in haemodialysis unit is preventable.

M.D. DEGREE EXAMINATION

BRANCH IV – MICROBIOLOGY

PAPER III – VIROLOGY AND PARASITOLOGY

Q.P. Code: 202016

Time: Three Hours

Maximum: 100 Marks

I. Essay:

(2 x 15 = 30)

1. Write in detail about various laboratory methods used for viral diagnosis.
2. List out the parasitic agent causing anemia. Mention the life cycle, pathogenesis and laboratory diagnosis of *Ancylostoma duodenale*. Brief about public health importance of Hookworm infection.

II. Short notes:

(10 x 5 = 50)

1. Von-Magnus phenomenon.
2. Seller's technique.
3. IMN (Infectious mononucleosis).
4. Oncogenic DNA viruses.
5. Plaque reduction neutralization test.
6. Laboratory diagnosis of Genital flagellate.
7. Bachman test.
8. Winterbottom sign.
9. Dead end parasitic infections.
10. DEC provocation test.

III. Reasoning Out:

(4 x 5 = 20)

1. Parvoviral infection during Pregnancy leads to Hydrops foetalis.
2. Tzank smear is not specific for diagnosis and differentiate HSV 1 and HSV 2.
3. Secondary Exo-erythrocytic cycle is absent in *Plasmodium falciparum*.
4. Acid-Fast staining is important in opportunistic infection in HIV positive patient.

[LQ 119]

**AUGUST 2020
(MAY 2020 SESSION)**

Sub. Code: 2016

**M.D. DEGREE EXAMINATION
BRANCH IV – MICROBIOLOGY
PAPER III – VIROLOGY AND PARASITOLOGY**

Q.P. Code: 202016

Time: Three Hours

Maximum: 100 Marks

I. Essay: (2 x 15 = 30)

1. Enumerate the emerging and re-emerging viral infections. Write in detail about the laboratory diagnosis and strategies for containment of SARS-CoV-2.
2. List out the Coccidian parasites. Discuss in detail the life cycle, pathogenesis and laboratory diagnosis of *Toxoplasma gondii*.

II. Short notes: (10 x 5 = 50)

1. Nipah virus.
2. Filariform larvae.
3. Intestinal Bilharziasis.
4. Slow virus diseases.
5. Strategies of HIV testing.
6. Stool concentration methods.
7. Oseltamivir.
8. Malaria vaccines.
9. Hand foot and mouth disease.
10. NNN medium.

III. Reasoning Out: (4 x 5 = 20)

1. Schizonts do not appear in peripheral blood in *Falciparum* malaria.
2. Genetic reassortment is common in Influenza virus.
3. Molar $MgCl_2$ is used in the preparation of oral polio vaccine.
4. Concentration methods not useful for detecting trophozoites in stool specimen.

[LS 119]

NOVEMBER 2020
(OCTOBER 2020 SESSION)
M.D. DEGREE EXAMINATION

Sub. Code: 2016

BRANCH IV – MICROBIOLOGY

PAPER III – VIROLOGY AND PARASITOLOGY

Q.P. Code: 202016

Time: Three Hours

Maximum: 100 Marks

I. Essay:

(2 x 15 = 30)

1. Name the Picorna viruses. Write in detail about the laboratory diagnosis of poliomyelitis. Briefly discuss the recent advances in prophylaxis of poliomyelitis.
2. Enumerate the parasites causing infection in HIV/AIDS. Discuss in detail the life cycle, pathogenesis and laboratory diagnosis of *Strongyloides stercoralis*.

II. Short notes:

(10 x 5 = 50)

1. Sylvatic cycle in Rabies.
2. Babesiosis.
3. *Gnathostoma spinigerum*.
4. Larva migrans.
5. Genital Herpes.
6. Post exposure prophylaxis in HIV.
7. Rodent borne viruses.
8. Occult filariasis.
9. TORCH Complex.
10. LD bodies.

III. Reasoning Out:

(4 x 5 = 20)

1. Ebola viruses are handled only in BSL-4 facilities.
2. Recrudescence seen with plasmodium falciparum infection.
3. Risk of developing severe dengue is more in subsequent dengue virus infections.
4. Trophozoites of *entamoeba histolytica* are not generally seen in freshly aspirated liver pus.

[MD 0721]

**JULY 2021
(MAY 2021 SESSION)**

Sub. Code: 2016

M.D. DEGREE EXAMINATION

BRANCH IV – MICROBIOLOGY

PAPER III – VIROLOGY AND PARASITOLOGY

Q.P. Code: 202016

Time: Three Hours

Maximum: 100 Marks

I. Essay:

(2 x 15 = 30)

1. Enumerate the arboviral diseases prevalent in India. Discuss the pathogenesis and lab diagnosis of dengue fever.
2. Name the parasites associated with HIV related diarrhea. Write in detail the life cycle, lab diagnosis and treatment of cryptosporidiosis.

II. Short notes:

(10 x 5 = 50)

1. Human papilloma virus.
2. Rabies vaccine.
3. Infectious mononucleosis.
4. Prions.
5. Cell culture for virus.
6. *Paragonimus westermani*.
7. Newer and rapid tests for the diagnosis of malaria.
8. *Cysticercus cellulosae*.
9. TORCH complex.
10. *Trichomonas vaginalis*.

III. Reasoning Out:

(4 x 5 = 20)

1. Efficacy of PEP in HIV if administered within 2 hours of exposure.
2. Non enveloped viruses are generally resistant to ether.
3. *Microfilaria* is not demonstrable in peripheral blood examination in case of occult filariasis.
4. Diagnostic aspiration is not recommended in hydatid disease.

[MD 1121]

NOVEMBER 2021
(OCTOBER 2021 SESSION)
M.D. DEGREE EXAMINATION

Sub. Code: 2016

BRANCH IV – MICROBIOLOGY

PAPER III – VIROLOGY AND PARASITOLOGY

Q.P. Code: 202016

Time: Three Hours

Maximum: 100 Marks

I. Essay:

(2 x 15 = 30)

1. Discuss transfusion associated Hepatitis viruses with laboratory diagnosis and interpretation of serological markers.
2. Describe the life cycle of Echinococcus granulosus. Discuss the pathogenesis and laboratory diagnosis of hydatid disease.

II. Short notes:

(10 x 5 = 50)

1. Molluscum contagiosum.
2. Interferons.
3. Hepatitis E.
4. Post exposure prophylaxis for HIV.
5. Viral Inclusion bodies.
6. Cutaneous Larva Migrans.
7. Microfilaria.
8. Toxoplasma gondii.
9. Endemic haematuria.
10. Giardiasis.

III. Reasoning Out:

(4 x 5 = 20)

1. Salicylate is contraindicated in children with Influenza, A,B and Varicella zoster.
2. Orthomyxovirus has the ability to cause pandemics.
3. Natural resistance to malaria is seen in Sickle cell anemia.
4. Trichomoniasis management requires both the partners to be treated.

THE TAMIL NADU DR.M.G.R. MEDICAL UNIVERSITY

[MD 0522]

MAY 2022

Sub. Code: 2016

M.D. DEGREE EXAMINATION

BRANCH IV – MICROBIOLOGY

PAPER III – VIROLOGY AND PARASITOLOGY

Q.P. Code: 202016

Time: Three Hours

Maximum: 100 Marks

I. Essay:

(2 x 15 = 30)

1. Enumerate the Viruses causing Exanthematous fever. Write in detail about the pathogenesis, Clinical features, lab diagnosis and prophylaxis of Rubeola.
2. Enumerate the pathogenic Free Living Amoebae. Write in detail on the Pathogenesis, Clinical manifestations & Lab diagnosis of Primary Amoebic Meningo Encephalitis.

II. Short notes:

(10 x 5 = 50)

1. Ebola Virus.
2. COVID 19 Vaccines.
3. EID in HIV.
4. Sparganosis.
5. Cryptosporidium parvum.
6. Original Antigenic Sin.
7. Rift Valley Fever.
8. Copro Antigen Test.
9. Latent Viruses.
10. Paul Bunnell Test.

III. Reasoning Out:

(4 x 5 = 20)

1. Ramsay Hunt syndrome is associate with Herpes Zoster.
2. Hypnozoites are the cause of Recrudescence in Malaria.
3. Duffy blood group Negative individuals are immune to Plasmodium vivax.
4. Supercarriers of Hepatitis B are highly infectious.

THE TAMIL NADU DR.M.G.R. MEDICAL UNIVERSITY

[MD 1022]

OCTOBER 2022

Sub. Code: 2016

**M.D. DEGREE EXAMINATION
BRANCH IV – MICROBIOLOGY**

PAPER III – VIROLOGY AND PARASITOLOGY

Q.P. Code: 202016

Time: Three Hours

Maximum: 100 Marks

I. Essay: (2 x 15 = 30)

1. Describe the pathogenesis and laboratory diagnosis of rabies. Add a note on pre- and post- exposure prophylaxis for rabies prevention.
2. List out the parasitic agent causing anemia. Mention the life cycle, pathogenesis and laboratory diagnosis of *Ancylostoma duodenale*. Brief about public health importance of Hookworm infection.

II. Short notes: (10 x 5 = 50)

1. Chagas disease.
2. *Plasmodium knowlesi*.
3. Laboratory diagnosis of Hepatitis B.
4. Hydatid cyst.
5. Varicella zoster virus.
6. *Molluscum contagiosum*.
7. Role of interferons in viral infections.
8. Chikungunya fever.
9. Prion disease.
10. *Enterobius vermicularis*.

III. Reasoning Out: (4 x 5 = 20)

1. Normocytic normochromic anaemia is usually seen in malaria.
2. Foul smelling profuse diarrhoea is seen in Giardiasis.
3. Pregnant women should not handle cat litter box.
4. Saline and iodine wet mounts are done on stool samples sent to the parasitology laboratory.

THE TAMIL NADU DR.M.G.R. MEDICAL UNIVERSITY

[MD 0723]

**JULY 2023
(MAY 2023 EXAM SESSION)**

Sub. Code: 2016

**M.D. DEGREE EXAMINATION
BRANCH IV – MICROBIOLOGY**

PAPER III – VIROLOGY AND PARASITOLOGY

Q.P. Code: 202016

Time: Three Hours

Maximum: 100 Marks

I. Essay: (2 x 15 = 30)

1. Explain in detail about the Morphology, Antigenic characteristics, Clinical features, Pathogenesis and Lab diagnosis of HIV virus. Write in detail about the Algorithm of Lab diagnosis of HIV.
2. Classify Malarial parasites. Explain in detail about the Morphology, Life cycle, Clinical features, Pathogenesis, Lab diagnosis of Plasmodium falciparum. Add a note on how it differs from Plasmodium vivax and ovale.

II. Short notes: (10 x 5 = 50)

1. Corona virus and its mutational changes. Add a note on epidemics caused by Corona virus.
2. Explain in detail about viral culture methods and detection of viral growth in cell culture.
3. Viral Hemorrhagic Fever.
4. Rabies prophylaxis.
5. Explain in brief about the Morphology, Antigenic features of Hepatitis B and add a note on Vaccination.
6. Toxoplasma gondii.
7. Stool concentration techniques.
8. Endemic hematuria.
9. Hymenolepsis nana.
10. Filarial worms.

III. Reasoning Out: (4 x 5 = 20)

1. Thrombocytopenia is a feature of Dengue fever.

... 2 ...

2. Primary Varicella antibodies are not protective in Reactivation.
3. Microbiological diagnosis should be included in children with Nocturnal enuresis.
4. In Amoebic liver abscess only trophozoites are seen.

[MD 0723]

THE TAMIL NADU DR.M.G.R. MEDICAL UNIVERSITY

[MD 1223]

**DECEMBER 2023
(OCTOBER 2023 EXAM SESSION)**

Sub. Code: 2016

**M.D. DEGREE EXAMINATION
BRANCH IV – MICROBIOLOGY
PAPER III – VIROLOGY AND PARASITOLOGY**

Q.P. Code: 202016

Time: Three Hours

Maximum: 100 Marks

I. Essay: (2 x 15 = 30)

1. Describe the morphology, pathogenesis, laboratory diagnosis and prophylaxis of Influenza Virus H3N2.
2. Describe the lifecycle, pathogenesis, conventional, molecular laboratory diagnosis and preventive measures of Neurocysticercosis.

II. Short notes: (10 x 5 = 50)

1. Prophylaxis of Poliomyelitis.
2. Structure of Adenovirus.
3. West Nile Virus.
4. Monkey Pox Virus.
5. Human diploid cell lines.
6. Balantidium coli.
7. Babesiosis.
8. Life cycle of Onchocerca volvulus.
9. Stool concentration technique.
10. Clonorchis sinensis.

III. Reasoning Out: (4 x 5 = 20)

1. Hepatitis D infection occurs only in hepatitis B surface antigen positive cases.
2. A specific anti sera was injected in the wound following wild animal bite.
3. In amoebic liver abscess aspirate only trophozoites were observed.
4. C-shaped flagellated forms were observed in peripheral blood smear of a patient from South American continent.
