April-2001

[KD 119] **Sub. Code : 2016**

M.D. DEGREE EXAMINATION.

Branch IV — Microbiology

(New/Revised Regulations)

Paper II — SYSTEMATIC BACTERIOLOGY

Time : Three hours Maximum : 100 marks

Answer ALL questions.

1. Discuss the organisms responsible for clostridial myositis. Add a note on the pathogenesis of infection and its diagnosis in the laboratory. (25)

2. Discuss the aetiology, pathogenesis and lab diagnosis of pyogenic meningitis. (25)

3. Short notes : (5 × 10 = 50)

   (a) Lymes disease.

   (b) Tris agents.

   (c) Atypical mycobacteria.

   (d) Rat bite fever.

   (e) Non–agglutinating vibrios.

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November-2001

[KE 119] **Sub. Code : 2016**

M.D. DEGREE EXAMINATION.

(Old/New/Revised Regulations)

Branch IV — Microbiology

Paper II — SYSTEMATIC BACTERIOLOGY

Time : Three hours Maximum : 100 marks

1. Classify Shigellae. Describe the growth characteristics, biochemical reactions, pathogenecity and typing of Shigellae. (25)

2. Classify Chlamydiae. Discuss the pathogenecity and laboratory diagnosis of chlamydial infections in man. (25)

3. Write briefly on : (5 × 10 = 50)

(a) Group D streptococci.

(b) Morphology and structure of spirochaetes.

(c) Gardenerella vaginalis.

(d) Laboratory diagnosis of pulmonary and genito urinary tuberculosis.

(e) Bordetta species.

March-2002

[KG 119] **Sub. Code : 2016**

M.D. DEGREE EXAMINATION.

(New/Revised Regulations)

Branch IV — Microbiology

Paper II — SYSTEMATIC BACTERIOLOGY

Time : Three hours, Maximum : 100 marks

Answer ALL the questions.

1. Describe the growth characteristics, pathogenecity and typing of Haemophilus species. (25)

2. Describe the different methods of classifying streptococci. Discuss the usefulness of different tests done for the laboratory diagnosis of streptococcus pyogenes infections and their complications. (25)

3. Write briefly on : (5 × 10 = 50)

   (a) Cell wall of mycobacterium.

   (b) Actinomyces.

   (c) Shigellae.

   (d) Anaerobic bacteria.

   (e) Diagnosis of brucellosis in humans.

September-2002

[KH 119] **Sub. Code : 2016**

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch IV — Microbiology

Paper II — SYSTEMATIC BACTERIOLOGY

Time : Three hours Maximum : 100 marks

Answer ALL questions.

1. Describe the morphology, cultural characteristics, pathogenesis and laboratory diagnosis of 'Helicobacter Pylori'. (25)

2. Enumerate the agents causing acute diarrhoeal diseases. Describe the laboratory diagnosis of acute bacillary dysentery. (25)

3. Short notes : (5 × 10 = 50)

   (a) Legionella pneumophilia

   (b) Multi drug resistance in mycobacteria

   (c) Lymes disease

   (d) Group–B streptococci

   (e) Imvic reaction.

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April-2003

[KI 119] **Sub. Code : 2016**

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch IV — Microbiology

Paper II — SYSTEMIC BACTERIOLOGY

Time : Three hours Maximum : 100 marks

Answer ALL questions.

1. Enumerate non sporing gram positive bacilli? Discuss laboratory diagnosis, pathogenicity and immunoprophylaxis of corynaebacterium diphtheria.(25)

2. Mention the organisms that cause bacterial pyogenic meningitis. Explain the epidemiological and laboratory investigation and management of meningococcal meningitis. (25)

3. Write briefly on : (5 × 10 = 50)

   (a) Nosocomial infections

   (b) Nongonococcal urethritis

   (c) Nagler reaction.

   (d) Solmonella food poisoning

   (e) Brill–Zinser's disease.

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[KJ 119] **Sub. Code : 2016**

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch IV — Microbiology

Paper II — SYSTEMIC BACTERIOLOGY

Time : Three hours
Theory : Two hours and forty minutes
M.C.Q. : Twenty minutes

Maximum : 100 marks
Theory : 80 marks
M.C.Q. : 20 marks

M.C.Q. must be answered **SEPARATELY** on the Answer Sheet provided as per the instructions given on the first page of M.C.Q. Booklet.

Answer ALL questions.

Draw suitable diagrams wherever necessary.

1. Discuss the sexually transmitted bacterial diseases. (15)

2. Discuss the determinants of pathogenicity and laboratory diagnosis of acute streptococcal infections caused by group A streptococci. (15)

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

(a) ETEC.

(b) Chiggerborne typhus.

(c) Helicobacter pylori.

(d) NAG vibrios.

(e) Actinomycosis.

(f) Bacterial pneumonias.

(g) Blood culture for bacterial pathogens

(h) Mycoplasma.

(i) Bcterial zoonoses.

(j) Chlamydia trachomatis.

[KK 119] **Sub. Code : 2016**

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch IV — Microbiology

Paper II — SYSTEMIC BACTERIOLOGY

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.

A. Essay : (2 × 15 = 30)

(1) Describe the pathogenesis and laboratory diagnosis of tuberculosis.

(2) Discuss the laboratory diagnosis of chlamydial infections.

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

(1) Nonsuppurative complications produced by streptococcus pyogenes.

(2) Naglers reaction.

(3) Yersinia enterocolitica.

(4) Lepromin test.

(5) Prophylaxis against tetanus.

(6) Diagnosis of typhoid carrier.

(7) VDRL test.

(8) Lyme disease.

(9) Halophilic vibrios.

(10) Types of botulism.

[KL 119] **Sub. Code : 2016**

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch IV — Microbiology

Paper II — SYSTEMIC BACTERIOLOGY

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) Discuss the laboratory isolation and classification of non spore forming anaerobes.

(2) Classify spirochetes. Discuss the laboratory diagnosis of syphilis. Mention the merits and demerits of serological tests for syphilis.

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

(a) NAG vibrios

(b) HACEK group bacteria

(c) EHEC

(d) Atypical mycobacteria

(e) Bartonella species

(f) Cl. defficile

(g) Actionmycetes

(h) Lymes' disease

(i) Group B streptococci

(j) Toxic shock syndrome.

[KM 119] **Sub. Code : 2016**

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch IV — Microbiology

Paper II — SYSTEMIC BACTERIOLOGY

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) Classify the aetiological agents causing pyogenic meningitis and briefly describe the laboratory diagnosis, treatment and prophylaxis.

(2) Classify Mycobacteria. Describe the laboratory diagnosis, treatment and prophylaxis of pulmonary tuberculosis.

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

(a) Staphylococcal toxins.

(b) Anaerobic myositis.

(c) Melidiosis.

(d) Helicobacter pylori.

(e) Nonvenereal Treponematoses.

(f) E coli diarrhoea.

(g) Mycoplasmas of humans.

(h) Ehrlichia.

(i) Elek's Test.

(j) Blood culture.

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[KO 119] **Sub. Code : 2016**

M.D. DEGREE EXAMINATION.

Branch IV — Microbiology

Paper II — SYSTEMIC BACTERIOLOGY

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) Discuss the laboratory isolation and classification of non spore forming anaerobes.

(2) Classify Vibrios. Discuss Laboratory diagnosis and investigation of an outbreak of cholera.

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

(a) Listeriosis.

(b) MRSA.

(c) Laboratory diagnosis of syphilis.

(d) Helicobacter pylori.

(e) Chlamydia trachomatis.

(f) Rat bite fever.

(g) Bacterial vaginosis.

(h) Pseudomonas aeruginosa.

(i) Diphtheroides as human pathogens.

(j) ESBL production in gram negative bacilli.

[KP 119] **Sub. Code : 2016**

M.D. DEGREE EXAMINATION.

Branch IV – Microbiology

Paper II — SYSTEMATIC BACTERIOLOGY

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 :

I. Describe the pathogenesis of diseases produced by Clostridium perfringens. Add a note on its laboratory diagnosis and prophylaxis. (20)

II. (a) Describe the morphology, cultivation, pathogenesis and laboratory diagnosis of chlamydia trachomatis. (15)

(b) Describe the pathogenecity and laboratory diagnosis of leptospirosis. (15)

III. Write short notes : (6 × 5 = 30)

(a) Cogulase negative Staphylococci.

(b) Animal models for the cultivation of M. leprae.

(c) Kaufmann and White scheme of classification of Salmonella.

(d) Chigger – borne typhus.

(e) Laboratory diagnosis of M. Pneumoniae.

(f) Helicobacter pylori.

[KQ 116] **Sub. Code : 2016**

M.D. DEGREE EXAMINATION.

Branch IV — Microbiology

SYSTEMATIC BACTERIOLOGY

Common to :

Paper II — (Old/New/Revised Regulations)

(Candidates admitted from 1988-89 onwards)

And

Paper II — (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 organisms causing Diarrhoea. Discuss etiopathogenesis of diarrhoea. (20)

(2) Discuss the pathogenesis, laboratory diagnosis and prevention of infection by helicobacter pylori. (15)

(3) Describe the morphology, cultivation, pathogenesis and laboratory diagnosis of chlamydia trachomatis. (15)

II. Write short notes: (6 × 5 = 30)

(a) Infections produced by non-sporing anaerobes

(b) Halophilic vibrios

(c) Zoonosis

(d) Blood culture

(e) Atypical mycobacteria

(f) Laboratory diagnosis of Neisseria meningitides.

[KR 118] **Sub. Code : 2015**

M.D. DEGREE EXAMINATION.

Branch IV — Microbiology

SYSTEMATIC BACTERIOLOGY

Common to :

Paper II — (Old/New/Revised Regulations)

(Candidates admitted upto 2003-04)

and

Paper II — (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. Essay :

1. Enumerate the infective causes of prolonged fever. Discuss the microbiological investigations of septicemia including modern blood culture techniques and interpretation of blood culture results. Add a note on anaerobic septicemia. (5 + 12 + 3 = 20)

2. Describe the laboratory diagnosis of pyogenic meningitis. Briefly discuss the etiology and prevention of neonatal meningitis. (10 + 5 = 15)

3. Discuss the etiology pathogenesis and laboratory diagnosis of infective endocarditis. (15)

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

(a) Toxic shock syndrome

(b) Antibiotic associated colitis.

(c) Salmonella food poisoning.

(d) Drug resistant gram positive infections.

(e) Non-conventional culture techniques for M. tuberculosis.

(f) Q fever.

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MARCH 2008

[KS 118] **Sub. Code : 2015**

M.D. DEGREE EXAMINATION.

Branch IV — Microbiology

Paper II – SYSTEMATIC BACTERIOLOGY

(Common to all Candidates)

Q.P.Code : 202015

Time : Three hours Maximum : 100 marks

Answer all questions.

Draw diagrams wherever necessary

I. Long Essay : $(2 \times 20 = 40)$

1. Discuss the Etiology and Pathogenesis of bacterial pneumonias. Describe specimen collection, Transport and specimen processing in the laboratory. (20)

2. Pathogenesis, Diagnostic and therapeutic strategies of gastrointestinal infections caused by Esch. Coli. (20)

II. Write Short notes on: $(10 \times 6 = 60)$

1. Non Cultivable Bacterial agents.
2. Extended Spectrum Beta Lactamases.
3. Lyme Disease.
4. Streptobacillus moniliformis.
5. Pathogenic Non Tuberculous Mycobacteria.
6. Bacillary Angiomatosis.
7. Melioidosis.
8. Clostridial Food poisoning.
9. Campylobacter species.
10. Specimen collection and Interpretation of Blood cultures.

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March 2009

[KU 118] **Sub. Code: 2015**

M.D. DEGREE EXAMINATION

Branch IV – MICROBIOLOGY
(Common to all candidates)

Paper II – SYSTEMATIC BACTERIOLOGY
Q.P. Code : 202015

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

Draw suitable diagram wherever necessary.
Answer ALL questions.

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

1. Discuss bacterial genital ulcerative diseases in detail.

2. Enumerate the causative agents of meningitis. Discuss the problem of T.B meningitis in India with special emphasis on newer diagnostic methods.

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

1. Melioidosis.
2. Anaerobic myositis.
3. Listeria monocytogenes.
4. Vancomycin resistant entero cocci.
5. Inclusion conjunctivitis.
6. Vectorborne bacterial disease.
7. Francisella tularensis.
8. Nonvenereal treponemes.
9. Helicobacter pylori infection.
10. Serodiagnosis of brucella.

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September 2009

[KV 118] **Sub. Code: 2015**

M.D. DEGREE EXAMINATION

Branch IV – MICROBIOLOGY
(Common to all candidates)

Paper II – SYSTEMATIC BACTERIOLOGY
Q.P. Code : 202015

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

Draw suitable diagram wherever necessary.
Answer ALL questions.

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

1. List the bacterial causes of sexually transmitted diseases. Write in detail the antigenic structure, antigenic heterogenecity and laboratory diagnosis of gonococcal urethritis.

2. Write in detail the morphology, cultural characteristics, pathogenesis and laboratory diagnosis of Helicobacter pylori infection.

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

1. Shiga toxin
2. Halophilic vibrios
3. Melioidosis
4. Nontyphoid salmonellosis
5. MRSA
6. Streptolysin-o
7. Antibiotic associated diarrhea
8. Spirillum minor
9. Bartonella bacilliformis
10. Cell-wall deficient bacteria

*****

March 2010

[KW 118] **Sub. Code: 2015**

M.D. DEGREE EXAMINATION

Branch IV – MICROBIOLOGY
(Common to all candidates)

Paper II – SYSTEMATIC BACTERIOLOGY
Q.P. Code : 202015

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

Draw suitable diagram wherever necessary.
Answer ALL questions.

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

1. Discuss the pathogenecity and laboratory diagnosis of Clostridium tetani. Describe the vaccines used against tetanus.

2. Discuss the taxonomy of coagulase negative staphylococci. Describe their role in Nosocomial infections.

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

1. Animal models for cholera.
2. Trachoma – inclusion conjunctivitis agents.
3. Coagglutination.
4. Newer mycobacterial vaccines.
5. Halophilic vibrios.
6. Bacillus anthracis.
7. Nocardia.
8. Vancomycin resistant enterococci.
9. Nonsporing anaerobes.
10. Laboratory diagnosis of leptospira.

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September 2010

[KX 118] **Sub. Code: 2015**

M.D. DEGREE EXAMINATION

Branch IV – MICROBIOLOGY

Paper II – SYSTEMATIC BACTERIOLOGY

(Common to all candidates)

Q.P. Code : 202015

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

Draw suitable diagram wherever necessary.
Answer ALL questions.

I. Essay questions : **(2 X 20 = 40)**

1. Discuss the Bacterial causes of PUO.
2. Discuss in detail about Atypical Mycobacteria.

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

1. Bacterial Food Poisoning.
2. Zoonotic infections.
3. Yaws.
4. Non-sporing anaerobes.
5. Soft sore.
6. Actinomyces.
7. Helicobacter Pylori infection.
8. Gonococcus.
9. Diphtheroids.
10. Gelatin liquefaction test.

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MAY 2011

[KY 118] **Sub. Code: 2015**

M.D. DEGREE EXAMINATION

BRANCH IV – MICROBIOLOGY

SYSTEMATIC BACTERIOLOGY

Q.P. Code : 202015

Time : 3 hours **Maximum : 100 marks**

(180 Min)

Answer ALL questions in the same order.

	Pages (Max.)	Time (Max.)	Marks (Max.)
I. Essay:			
1. Enumerate Pyogenic cocci. Describe in detail the morphology, cultural characteristics, pathogenesis and lab diagnosis of Gonococci.	6	15	10
2. List the bacterial zoonotic diseases. Describe the morphology, cultural characteristics, pathogenesis, epidemiology and lab diagnosis of Plague causing Bacilli.	6	15	10
II. Short Questions:			
1. Antigenic variations of salmonella.	3	8	5
2. Halophilic Vibrios.	3	8	5
3. Melioidosis.	3	8	5
4. Swimming pool granuloma.	3	8	5
5. Chlamydia pneumoniae.	3	8	5
6. Chancroid.	3	8	5
7. Bartonella.	3	8	5
8. Eaton agent.	3	8	5
III. Reasoning Out:			
1. Midstream urine samples are collected for quantitative cultures of E.coli.	4	10	5
2. Sh. Shigae is the most virulent organism of all the Shigella species.	4	10	5
3. Non-capsulated strains of H.influenzae are called nontypable strains.	4	10	5
4. “Blocking effect” of Brucella antibodies can be removed by various methods.	4	10	5
IV. Very Short Answers :			
1. Toxin Co-regulated Pilus (TCP).	1	4	2
2. Shanghai fever.	1	4	2
3. Haemolytic uraemic syndrome.	1	4	2
4. Coagulase positive Staph species other than Staph aureus.	1	4	2
5. Type I and Type II reaction of leprosy.	1	4	2
6. Reiters syndrome.	1	4	2
7. ‘Modulation’ in B.pertussis.	1	4	2
8. Brazilian purpuric fever.	1	4	2
9. Virulence marker antigen.	1	4	2
10. Food poisoning strain of cl.perfringens.	1	4	2

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April 2012

[LA 118] **Sub. Code: 2015**

M.D. DEGREE EXAMINATION
BRANCH IV – MICROBIOLOGY
PAPER II – SYSTEMATIC BACTERIOLOGY
Q.P. Code : 202015

Time : 3 hours **Maximum : 100 marks**
(180 Min)

Answer ALL questions in the same order.

	Pages (Max.)	Time (Max.)	Marks (Max.)
I. Essay:			
1. Classify Spirochaetes, Discuss about the morphology and laboratory diagnosis of Leptospira.	9	15	10
2. Enumerate the toxins of Staphylococcus aureus. Write in detail about pathogenesis and laboratory diagnosis of Staphylococcal food poisoning.	9	15	10
II. Short Questions:			
1. Enumerate the organisms causing Non –Gonococcal Urethritis and discuss the laboratory diagnosis of it.	3	8	5
2. Describe the causative organism and pathogenesis of Malignant pustule.	3	8	5
3. Discuss the laboratory diagnosis of Diphtheria.	3	8	5
4. Discuss the morphology of Fusobacterium, mention its species and infections caused by it.	3	8	5
5. Discuss the pathogenesis and laboratory diagnostic methods to detect infection caused by clostridium difficile.	3	8	5
6. Enumerate Halophillic vibrios and discuss the infections caused by them.	3	8	5
7. Describe the cultural and biochemical characters of Acinetobacter baumannii.	3	8	5
8. Discuss the laboratory diagnosis of infection caused by Helicobacter pylori.	3	8	5
III. Reasoning Out:			
1. Children with repeated sore throat infections are prone for Rheumatic fever.	5	10	5
2. Muscular rigidity and spasm occurs in tetanus.	5	10	5
3. Widal test is positive only after seven days of typhoid fever.	5	10	5
4. How Shigella dysenteriae Type I causes arthritis?	5	10	5
IV. Very Short Answers :			
1. List four characters to differentiate Pneumococci from Streptococcus viridians.	1	4	2
2. List two toxoids used to prevent bacterial infections.	1	4	2

(PTO)

April 2012

3. Enumerate four bacteria which cause Gas gangrene.	1	4	2
4. Mention the salmonella which causes septicemia.	1	4	2
5. List two pigments produced by Pseudomonas aeruginosa.	1	4	2
6. Name the X and V factors.	1	4	2
7. List two atypical Mycobacterium which causes skin infection.	1	4	2
8. Name the causative agent for Psittacosis.	1	4	2
9. Name two forms in which Chlamydia occurs.	1	4	2
10. Epidemic typhus is caused by which microorganism.	1	4	2

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(LC 118) **APRIL 2013** **Sub. Code: 2015**

M.D. DEGREE EXAMINATION

BRANCH IV – MICROBIOLOGY

PAPER – II – SYSTEMATIC BACTERIOLOGY

Q.P. Code : 202015

Time: Three Hours **Maximum: 100 marks**

I. Essay: **(2X10=20)**

1. Discuss in detail the special characters, classification and diagnostic techniques of Atypical mycobacteria.
2. Describe the laboratory diagnosis of Bacillary dysentery.

II. Short Questions: **(8X5=40)**

1. Tube coagulase test
2. CAMP Test
3. Malignant pustule
4. Diene's phenomenon
5. Oroya fever
6. Listeria monocytogenes
7. Enteroinvasive E.coli
8. Haemophilus ducreyi

III. Reasoning Out: **(4X5=20)**

1. Staphylococcal infections are localised in contrast to the spreading nature of Streptococcal infections.
2. Rapid plasma reagin test replaced VDRL test in many laboratories.
3. Proteus strains are used to detect rickettsial antibodies in Weil Felix test.
4. Three to six morning urine samples to be tested for the diagnosis of renal tuberculosis.

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

1. Unique characters of Enterococcus.
2. Special features of Staphylococcus aureus.
3. Significant bacteriuria
4. Ingredients and their role in LJ medium.
5. Diphtheroids.
6. Toxins produced by Clostridium tetani.
7. Halophilic vibrios.
8. Pigments of Pseudomonas aeruginosa.
9. Blocking antibodies in Brucellosis.
10. Staphylococcus saprophyticus.

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[LD 118] **OCTOBER 2013** **Sub. Code: 2015**

M.D. DEGREE EXAMINATION

BRANCH IV – MICROBIOLOGY

PAPER II – SYSTEMATIC BACTERIOLOGY

Q.P. Code : 202015

Time: Three Hours **Maximum: 100 marks**

I. Essay: **(2 x 10 = 20)**

1. List the bacterial causes of sexually transmitted diseases. Describe in detail the laboratory diagnosis of syphilis. Mention the merits and demerits of the various tests available.
2. Classify Mycobacteria. Discuss the pathogenesis, lab diagnosis and treatment of pulmonary tuberculosis.

II. Short Questions: **(8 x 5 = 40)**

1. HACEK organisms.
2. Helicobacter pylori.
3. Shiga toxin.
4. Halophilicvibrios.
5. Melioidosis.
6. Nontuphoidal salmonellosis.
7. Actinomycosis.
8. CAMP test.

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

1. XLD is better than DCA for faeces culture.
2. Co-agglutination reaction is commonly used for grouping of beta haemolytic streptococci.
3. Diphtheroids must not be rejected as contaminants in CSF culture without careful examination.
4. Oxacillin is used as a marker for penicillin susceptibility by disc diffusion methods for Streptococcus pneumoniae.

IV. Very Short Answers: **(10 x 2 = 20)**

1. List the virulence factors of Staphlyococcusaureus.
2. Name four colony morphologies of Pseudomonasspp.
3. Classify spirochaetes.
4. Special characteristics of Enterococcus.
5. Name four coagulase negative Staphylococci.
6. Name four agents of pyogenic meningitis.
7. List two atypical mycobacteria which cause skin infection.
8. Non sporing anaerobes.
9. NAG vibrios.
10. Waterhouse – Friedrichsen syndrome.

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(LE 118) **APRIL 2014** **Sub. Code:2015**

M.D. DEGREE EXAMINATION

BRANCH IV - MICROBIOLOGY

Paper – II SYSTEMATIC BACTERIOLOGY

Q.P.Code: 202015

Time: Three Hours **Maximum: 100 marks**

I. Essay Questions: **(2X10=20)**

1. Classify Streptococci, Discuss the pathogenesis and laboratory diagnosis of Rheumatic fever.

2. Describe the morphology, pathogenesis and laboratory diagnosis of Vibrio cholerae.

II. Short Questions: **(8X5=40)**

1. Laboratory diagnosis of Leptospirosis.
2. Laboratory diagnosis of Enteric fever.
3. Bacteroides fragilis.
4. Gas gangrene.
5. Methicillin Resistant Staphylococcus aureus.
6. Mycoplasma pneumonia.
7. Bacille Calmette Guerin.
8. Laboratory diagnosis of Pertussis.

III. Reasoning Out: **(4X5=20)**

1. In urinary tract infection 10^5 bacteria per milli liter of urine is significant and suggests infection.
2. Biologic false positive reaction occurs in VDRL test.
3. Rickettsiae are cultivated in yolk sac of embryonated hens egg.
4. Blue pus is observed in some wound infections.

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

1. Causative agents of non-gonococcal urethritis.
2. Prodigiosin.
3. Diptheroids.
4. Quellung reaction.
5. Bartonella henselae.
6. Halberstaedter Prowazek bodies.
7. Sulphur granules.
8. Clue cells.
9. Bile solubility test.
10. Globi.

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(LF 118) **OCTOBER 2014** **Sub. Code:2015**

M.D. DEGREE EXAMINATION

BRANCH IV - MICROBIOLOGY

PAPER II - SYSTEMATIC BACTERIOLOGY

Q.P.Code: 202015

Time: Three Hours **Maximum: 100 marks**

I. Essay Questions: **(2 x 10 = 20)**

1. Classify Chlamydia. Describe the morphological forms, pathogenicity and lab diagnosis of chlamydial infections in man.
2. Discuss the pathogenicity and lab diagnosis of clostridium tetani. Describe the vaccines against tetanus.

II. Short Questions: **(8 x 5 = 40)**

1. Lyme disease.
2. Soft sore.
3. Group B Streptococci.
4. Enumerate organisms causing Non gonococcal Urethritis and lab diagnosis.
5. Reagin antibody tests.
6. Pathogenicity and lab diagnosis of Mycobacterium tuberculosis.
7. Tick borne Rickettsial diseases.
8. Pathogenicity and lab diagnosis of Mycoplasma pneumoniae.

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

1. Occurrence of relapses in disease by Borrelia recurrentis.
2. Bacillus cereus has become an important cause of food poisoning.
3. Sera of Brucellosis patients often contain Blocking or Nonagglutinating antibodies.
4. A positive tuberculin test indicates hypersensitivity to Tuberculoprotein.

IV. Very Short Answers: **(10 x 2 = 20)**

1. Five day fever.
2. Grading of smears of Mycobacterium leprae.
3. Toxins of Pneumococci.
4. Gardnerella vaginalis.
5. Undulant fever.
6. Swimming pool granuloma.
7. Yaws.
8. Antibiotic associated colitis.
9. Satellitism.
10. Anton test.

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[LG 118] **APRIL 2015** **Sub. Code: 2015**

M.D. DEGREE EXAMINATION

BRANCH IV – MICROBIOLOGY

PAPER II – SYSTEMATIC BACTERIOLOGY

Q.P. Code : 202015

Time: Three Hours **Maximum: 100 marks**

Answer ALL questions

I. Essay: **(2 x 10 = 20)**

1. Define and classify meningitis. Describe the pathogenesis and laboratory diagnosis of meningitis.
2. Classify Rickettsia. Describe in detail pathogenesis & lab diagnosis of Typhus fevers.

II. Short Questions: **(8 x 5 = 40)**

1. Non specific urethritis.
2. Pneumococcal vaccine.
3. Laboratory diagnosis of Listeria monocytogens.
4. Cutaneous anthrax.
5. Laboratory diagnosis of anaerobes.
6. Kauffmann White scheme.
7. Plague.
8. Virulence factors of Bordetella pertussis.

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

1. Cefoxitin disc is used in the detection of MRSA recently.
2. Sensitivity and specificity of Gram's stain in Gonorrhoea is 95-98% in males but only 60% in females.
3. Oxidase test should not be done from growth on Mac Conkey medium.
4. Lowenstein – Jensen's medium is sterilized by tyndallization and not by autoclaving.

IV. Very Short Answers: **(10 x 2 = 20)**

1. Opthalmia neonatorum.
2. Corynebacterium jeikeium.
3. Staphylococcal scalded skin syndrome.
4. Nagler's reaction.
5. Castaneda's method.
6. Frei's test.
7. XDR – TB.
8. Blocking antibodies.
9. Screening tests for UTI.
10. IMVIC test.

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(LI 118) APRIL 2016 **Sub. Code:2015**

M.D. DEGREE EXAMINATION

BRANCH IV – MICROBIOLOGY

PAPER II – SYSTEMATIC BACTERIOLOGY

Q.P.Code: 202015

Time: Three Hours **Maximum: 100 Marks**

I. Essay Questions: **(2 x 10 = 20)**

1. Enumerate the bacteria causing food poisoning. Write briefly about specimen collection and lab diagnosis of food poisoning.
2. Describe the structure and the classification of spirochetes write briefly about the pathogenesis and lab diagnosis of Weil's disease.

II. Short Questions: **(8 x 5 = 40)**

1. Laboratory diagnosis of carrier in Salmonella typhi.
2. Gene expert.
3. Pontiac fever.
4. Buruli ulcer.
5. Extremely Drug Resistant tuberculosis.
6. Diphtheroids.
7. Special characters of HACEK group of organisms.
8. Vincent Angina.

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

1. Explain how Wilson- Blair medium act as more selective media for the isolation of Salmonella?
2. Explain the pathogenesis of Hemolytic uremic syndrome.
3. Which Bacteria causes walking pneumonia? Why it is called so?
4. Explain how biofilm production act as a virulent factor for bacteria?

IV. Very Short Answers: **(10 x 2 = 20)**

1. Importance of glycocalyx.
2. Inclusion bodies in chlamydial infection.
3. What is 4 – methyl umbellifery β- D glucoranide (MUG) test?
4. Name two tube coagulase positive staphylococci..
5. Typhoral vaccine.
6. Laboratory diagnosis of Melioidosis.
7. Write the name of the toxins produced by Clostridium perferingens.
8. Park Williams 8 Strain.
9. Neil- Mooser test.
10. Give four example for Rodent borne bacterial infections.

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(LJ 118) OCTOBER 2016 **Sub. Code:2015**

M.D. DEGREE EXAMINATION

BRANCH IV – MICROBIOLOGY

PAPER II – SYSTEMATIC BACTERIOLOGY

Q.P.Code: 202015

Time: Three Hours **Maximum: 100 Marks**

I. Essay Questions: **(2 x 10 = 20)**

1. Enumerate bacterial causes of sexually transmitted infections. Write in detail the morphology, cultural characteristics, Pathogenesis, Laboratory diagnosis of Chlamydia trachomatis.
2. Classify Streptococci. Describe the virulence factors, Pathogenesis, Laboratory diagnosis of Streptococcus pyogenes.

II. Short Questions: **(8 x 5 = 40)**

1. Toxic shock syndrome.
2. Non sporing anaerobes.
3. Laboratory diagnosis of Corynebacterium diphtheria.
4. Clostridium difficile.
5. Atypical pneumonia.
6. Enterohemorrhagic E.coli.
7. Antigenic variation in Salmonella.
8. Mycobacteria Growth Indicator Tube (MGIT).

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

1. VDRL is a non-specific test but still widely used in the detection of syphilis.
2. Phenol saline is used in the tube agglutination test for Brucella.
3. Bacteremia is not seen in Cholera.
4. Staphylococcal infections are localized where as streptococcal infections are spreading in nature.

IV. Very Short Answers: **(10 x 2 = 20)**

1. Forssman antigen.
2. PLET agar medium.
3. Satellitism.
4. Eaton agent.
5. BCG vaccine.
6. Pinta.
7. Cold agglutination test.
8. Anton test.
9. Urease breath test.
10. Cat scratch disease.

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(LK 118) MAY 2017 **Sub. Code:2015**

M.D. DEGREE EXAMINATION

BRANCH IV – MICROBIOLOGY

PAPER II – SYSTEMATIC BACTERIOLOGY

Q.P.Code: 202015

Time: Three Hours **Maximum: 100 Marks**

I. Essay Questions: **(2 x 10 = 20)**

1. List the aetiological agents of Gas gangrene. Describe the pathogenesis, Laboratory diagnosis and prophylaxis of Gas gangrene.
2. Enumerate the causes of Enteric fever. Write in detail the cultural characteristics, Pathogenesis, Laboratory diagnosis and prophylaxis of Salmonella typhi.

II. Short Questions: **(8 x 5 = 40)**

1. Necrotising fasciitis.
2. Streptococcus agalactiae.
3. Laboratory diagnosis of Gonorrhoea.
4. Virulence factors of B.anthracis.
5. Prophylaxis of Tetanus.
6. Melioidosis.
7. Gene X pert.
8. Halophilic vibrios.

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

1. Penicillin treatment in syphilis sometimes induces the Jarisch-Herxheimer reaction.
2. Clean cratch midstream urine sample are ideal in urine culture.
3. Tube catalase test is more sensitive and specific than slide catalase test.
4. Vancomycin disc should not be used in the sensitivity test of staphylococcal aureus.

IV. Very Short Answers: **(10 x 2 = 20)**

1. Water house Friderichsen syndrome.
2. Elek's gel precipitation test.
3. MDR – TB.
4. Non photochromogens.
5. EMJH medium.
6. Dienes method.
7. Name the species and selective medium used for Campylobacter.
8. Neil – Mooser reaction.
9. Elementary bodies.
10. Significant bacteriuria.

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(LL 118) OCTOBER 2017 **Sub. Code: 2015**

M.D. DEGREE EXAMINATION

BRANCH IV – MICROBIOLOGY

PAPER II – SYSTEMATIC BACTERIOLOGY

Q.P.Code: 202015

Time: Three Hours **Maximum: 100 Marks**

I. Essay Questions: **(2 x 10 = 20)**

1. Mention the HACEK (Haemophilus, Aggregatibacter, Cardiobacterium, Eikenella, Kingella species) group of bacteria. Describe the morphology, cultural characters, pathogenicity and lab diagnosis of Hemophilus influenzae.
2. Classify Rickettsia. Describe in detail pathogenesis and lab diagnosis of Typhus fevers.

II. Short Questions: **(8 x 5 = 40)**

1. Rat bite fever.
2. Group D Streptococci.
3. Lab diagnosis of Pulmonary tuberculosis.
4. Actinomycotic Mycetoma.
5. Antigenic constituents and virulence factors of Bordetella pertussis.
6. Laboratory diagnosis of Chlamydial infections.
7. Pathogenicity and lab diagnosis of Clostridium perfringes.
8. Lab diagnosis of Leptospirosis.

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

1. Swabs are generally unsatisfactory specimen for anaerobic culture.
2. Enterotoxins are important in pathogenesis of diarrhoea by Escherichia coli.
3. Plague is a Zoonotic disease.
4. Haemophilus influenza has fastidious growth requirements.

IV. Very Short Answers: **(10 x 2 = 20)**

1. Donovania Granulomatis.
2. Halberstaedter - Prowazek bodies.
3. Cultural characters of Mycoplasma.
4. Non pathogenic Treponemes.
5. Experimental animals in leprosy.
6. Pontiac fever.
7. ‘Mercury Drops’ colony.
8. Cold agglutination test.
9. Cat scratch disease.
10. Standard Agglutination test.

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[LM 118] MAY 2018 **Sub. Code: 2015**

M.D. DEGREE EXAMINATION

BRANCH IV – MICROBIOLOGY

PAPER II – SYSTEMATIC BACTERIOLOGY

Q.P.Code: 202015

Time: Three Hours **Maximum: 100 Marks**

I. Essay: **(2 x 15 = 30)**

1. List the bacterial agent produces Pigment. Write in detail about risk factors, pathogenesis and laboratory diagnosis of Pseudomonas pseudomallei. Brief about Nosocomial infection.

2. Discuss in detail about Non-cultural methods for Bacterial identification.

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

1. Laboratory diagnosis of Bacterial vaginosis.
2. Q fever.
3. Serological diagnosis of Atypical pneumonia.
4. Halophilic Vibrios.
5. Pontiac fever.
6. Clinical importance of Weil-Felix reaction.
7. CAMP test.
8. Neurotoxic effect of Clostridial infection.
9. Lepra reaction.
10. Lancefield classification.

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

1. Antibiotics are not used to treat Staphylococcal food poisoning.
2. The immunological basis of Bovine tuberculosis used for vaccine production against M.tb.
3. The treatment of Bacterial vaginosis depends of Nugent scoring system.
4. Leptospirosis outbreak is more common during rainy season.

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[LN 118] OCTOBER 2018 **Sub. Code: 2015**

M.D. DEGREE EXAMINATION

BRANCH IV – MICROBIOLOGY

PAPER II – SYSTEMATIC BACTERIOLOGY

Q.P. Code: 202015

Time: Three Hours **Maximum: 100 Marks**

I. Essay: **(2 x 15 = 30)**

1. Discuss the role of non-fermentative Gram negative bacilli in various clinical conditions. Describe the methods of their identification and pathogenicity tests.

2. Give an account of Hansen's bacillus. Review the development of newer concepts in the Bacteriology and Immunology of leprosy.

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

1. Proteocin typing.
2. VRE.
3. Demonstration of toxigenicity of Corynebacterium diphtheriae.
4. Specimen collection, processing and interpretation of blood culture.
5. Pseudomembranous colitis.
6. Human chlamydial infections.
7. Mode of action of cholera toxins.
8. Antibiotic resistance in N. gonorrhoae.
9. Infections caused by non-sporing anaerobes.
10. Streptococcal vaccines.

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

1. Blue pus in Pseudomonas.
2. Fresh isolates of Salmonella are non-agglutinable with O antigen.
3. Staphylococcus infections are localized.
4. Swarming in Proteus.

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[LO 118] MAY 2019 **Sub. Code: 2015**

M.D. DEGREE EXAMINATION

BRANCH IV – MICROBIOLOGY

PAPER II – SYSTEMATIC BACTERIOLOGY

Q.P. Code: 202015

Time: Three Hours **Maximum: 100 Marks**

I. Essay: **(2 x 15 = 30)**

1. Define aseptic meningitis. What are the bacterial causes of aseptic meningitis? Write in detail about the laboratory diagnosis of neurosyphilis.

2. Enumerate the obligate intracellular nonculturable bacteria. Discuss the laboratory diagnosis of Q fever. Add a note on methods to check the quality of milk.

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

1. Fifth generation cephalosporins.
2. ESBL detection methods.
3. Community acquired pneumonia.
4. Tests used in questionable coagulase reaction by Staphylococcus aureus.
5. Specific diagnostic methods of anaerobic infections.
6. Detection of Salmonella carriers.
7. Ophthalmia neonatorum.
8. Cell lines in bacterial identification.
9. Vaccine associated adverse reactions.
10. UPEC.

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

1. Cystic fibrosis patients are at high risk with Pseudomonas infections.
2. Difficulties in the identification of non fermentors.
3. Reasons for resurgence of diphtheria.
4. Rapid polymyxin NP test has got a role in diagnostic microbiology.

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[LP 118] OCTOBER 2019 **Sub. Code: 2015**

M.D. DEGREE EXAMINATION

BRANCH IV – MICROBIOLOGY

PAPER II – SYSTEMATIC BACTERIOLOGY

Q.P. Code: 202015

Time: Three Hours **Maximum: 100 Marks**

I. Essay: **(2 x 15 = 30)**

1. List the various zoonotic bacterial infections. Discuss in detail about pathogenesis, clinical features and laboratory diagnosis of Acute Brucellosis.

2. Enumerate capsulated bacterial species. Mention the virulence factors of H.influenza and add a note on capsular staining.

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

1. Bacterial Superantigens.
2. PPLO agent.
3. Inclusion conjunctivitis.
4. Runyon classification.
5. Treatment for MDR Salmonella.
6. Reiter syndrome.
7. MRSA.
8. Anton test.
9. Selective culture medium for Enterobacteriaciae.
10. HACEK group of bacteria.

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

1. Infective Endocarditis screening and diagnosis to be done by three blood sample from the patients.
2. Acid-Fast staining is important during diagnosis of Bacterial Mycetoma.
3. Pasteurization process is not adequate to destroy Coxiella burnetti spores.
4. Eijkman test is more reliable than MPN (Most Probable Number).

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[LQ 118] AUGUST 2020 **Sub. Code: 2015**

(MAY 2020 SESSION)

M.D. DEGREE EXAMINATION

BRANCH IV – MICROBIOLOGY

PAPER II – SYSTEMATIC BACTERIOLOGY

Q.P. Code: 202015

Time: Three Hours **Maximum: 100 Marks**

I. Essay: **(2 x 15 = 30)**

1. Classify Vibrios. Discuss the pathogenesis and laboratory diagnosis of Cholera. Add a note on the epidemiology and prophylaxis.

2. Enumerate the bacterial causes of sexually transmitted infections. Write in detail the pathogenesis, clinical features and laboratory diagnosis of Gonorrhoea.

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

1. Amp C beta lactamase.
2. Detection of salmonella carriers.
3. Atypical pneumonia.
4. EHEC.
5. Pontiac fever.
6. Botulism.
7. DTaP vaccine.
8. Bartonella quintana.
9. Ehrlichiosis.
10. Lepromin reaction.

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

1. CoNS is frequently isolated from prosthetic infections.
2. Redox potential is important in gas gangrene.
3. Cell wall deficient bacteria do not grow in routine culture media.
4. LJ medium is both a selective and enriched medium.

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[LS 118] NOVEMBER 2020 **Sub. Code: 2015**

(OCTOBER 2020 SESSION)

M.D. DEGREE EXAMINATION

BRANCH IV – MICROBIOLOGY

PAPER II – SYSTEMATIC BACTERIOLOGY

Q.P. Code: 202015

Time: Three Hours **Maximum: 100 Marks**

I. Essay: **(2 x 15 = 30)**

1. Enumerate the organisms causing membranous tonsillitis. Write in detail the pathogenesis, clinical features, laboratory diagnosis and prophylaxis of Diphtheria.

2. Name the Bioterrorism agents. Discuss in detail the pathogenesis, laboratory diagnosis and prophylaxis of Anthrax.

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

1. CA-MRSA.
2. Capnophilic bacteria.
3. MAT.
4. Lyme disease.
5. Shiga toxin.
6. Bacterial food poisoning.
7. Tularaemia.
8. CB-NAAT.
9. Pasteurella multocida.
10. Pseudomembranous colitis.

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

1. Streptococcus pyogenes produces spreading type of lesions.
2. Role of Phenol saline in SAT.
3. Resazurin as an indicator in anaerobic medium.
4. Penicillin is not effective against Mycoplasma.

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[MD 0721] JULY 2021 **Sub. Code: 2015**

(MAY 2021 SESSION)

M.D. DEGREE EXAMINATION

BRANCH IV – MICROBIOLOGY

PAPER II – SYSTEMATIC BACTERIOLOGY

Q.P. Code: 202015

Time: Three Hours **Maximum: 100 Marks**

I. Essay: **(2 x 15 = 30)**

1. Describe the pathogenesis and laboratory diagnosis of chlamydia infection.
2. Describe the pathogenesis and laboratory diagnosis of enteric fever. Add a note on typhoid vaccines.

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

1. Co- aggulutination.
2. VRE.
3. Halophilic vibrios
4. Botulism.
5. Non sporing anaerobes.
6. Plague.
7. Recent advances in the diagnosis of tuberculosis.
8. Pneumococcal vaccine.
9. Trachoma.
10. Toxins of clostridium welchii.

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

1. Muscular rigidity and spasm occurs in tetanus.
2. Children with repeated sore throat infections are prone for rheumatic fever.
3. Rapid plasma regain test replaced VDRL test in many laboratories.
4. Rickettsiae are cultivated in yolk sac of embryonated hens egg.

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

[MD 1121] NOVEMBER 2021 **Sub. Code: 2015**

(OCTOBER 2021 SESSION)

M.D. DEGREE EXAMINATION

BRANCH IV – MICROBIOLOGY

PAPER II – SYSTEMATIC BACTERIOLOGY

Q.P. Code: 202015

Time: Three Hours **Maximum: 100 Marks**

I. Essay: **(2 x 15 = 30)**

1. Enumerate the Bacteria causing food poisoning. Write briefly about specimen collection and laboratory diagnosis of food poisoning.
2. Describe the pathogenesis and laboratory diagnosis of diphtheria. Add a note on its Prophylaxis.

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

1. Antibiotic associated Colitis.
2. Non cultivable bacterial agents.
3. Non Gonoccocal Urethritis.
4. ESKAPE group of pathogens.
5. Pontiac Fever.
6. Drug Resistant tuberculosis.
7. Campylobacter species.
8. V i-Ag Salmonella.
9. NAG Vibrios.
10. Vincent's angina.

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

1. Biological false positive reaction occurs in VDRL test.
2. Cefoxitin disc is used in the detection of MRSA.
3. Oxidase test should not be done from growth on Mac Conkey medium.
4. Wilson-Blair medium acts as a more selective media for isolation of Salmonella.

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

[MD 0522] **MAY 2022** **Sub. Code: 2015**

M.D. DEGREE EXAMINATION

BRANCH IV – MICROBIOLOGY

PAPER II – SYSTEMATIC BACTERIOLOGY

Q.P. Code: 202015

Time: Three Hours **Maximum: 100 Marks**

I. Essay: **(2 x 15 = 30)**

1. Describe in brief the pathogenesis, clinical manifestations and lab diagnosis of Leptospirosis.

2. Enumerate the common agents causing community acquired pneumonia. Describe in detail the pathogenesis, clinical features and the laboratory diagnosis of pneumococcal pneumonia.

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

1. Lab diagnosis of infection caused by Neisseria meningitidis.
2. Congenital syphilis.
3. Brucellosis.
4. Necrotising fasciitis.
5. Diphtheroids.
6. Relapsing fever caused by Borrelia species.
7. Toxins produced by Staphylococcus aureus.
8. Non sporing anaerobes.
9. Listeria monocytogenes.
10. Rapidly growing mycobacteria.

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

1. Gas gangrene is usually associated with cases of severe crush injury.
2. Neil Mooser reaction may be useful in diagnosing Rickettsial infections.
3. Lowenstein – Jensen’s medium is sterilized by tyndallization.
4. It is advised to avoid consumption of raw or half cooked eggs.

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

[MD 1022] **OCTOBER 2022** **Sub. Code: 2015**

M.D. DEGREE EXAMINATION

BRANCH IV – MICROBIOLOGY

PAPER II – SYSTEMATIC BACTERIOLOGY

Q.P. Code: 202015

Time: Three Hours **Maximum: 100 Marks**

I. Essay: **(2 x 15 = 30)**

1. Classify Rickettsiae. Write in detail on Scrub Typhus.
2. Classify Streptococci. Elaborate on the Virulence factors, Clinical manifestations and Lab Diagnosis of Group A Streptococcus.

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

1. Lysis Centrifugation.
2. Erythema Migrans.
3. Plague.
4. IGRA.
5. Enteric Fever.
6. Vancomycin Resistance in Staph aureus.
7. Capsular Polysaccharide Vaccines.
8. Helicobacter pylori.
9. Pleuropneumonia like organisms.
10. HACEK.

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

1. Brucella abortus causes abortion in Cattles.
2. Pregnant women with early syphilis are more infective to the fetus.
3. RPR test is not done in CSF.
4. Lymphocytosis is a diagnostic feature of Pertussis.

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

[MD 0723] **JULY 2023** **Sub. Code: 2015**

(MAY 2023 EXAM SESSION)

M.D. DEGREE EXAMINATION

BRANCH IV – MICROBIOLOGY

PAPER II – SYSTEMATIC BACTERIOLOGY

Q.P. Code: 202015

Time: Three Hours **Maximum: 100 Marks**

I. Essay: **(2 x 15 = 30)**

1. A 30 year old male presented with h/o coated tongue, pyrexia, weakness, anorexia and vomiting for the past 4 days. He gives h/o eating food outside. On general examination tenderness in right lower hypochondrium of the abdomen. Blood culture shows non fermenting colonies on MacConkey medium. Identify the organism. Explain in detail about the classification of the above organism, clinical features, pathogenesis and lab diagnosis.

2. Classify Chlamydia and its pathogenic clinical conditions. Explain in detail about the Morphology, Life cycle, Clinical features, Pathogenesis, Lab diagnosis of Chlamydia.

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

1. Write in detail about the Toxins and Enzymes of Streptococcus Pyogenes.
2. Classify Diarrhoea causing Bacteria. Explain in detail about the classification of Escherichia coli and its individual pathogenesis. Add note on rapid diagnostic kits available and its principle.
3. A child aged 3 years came with c/o passing motion with blood and mucus 5 to 7 times. Give etiological factors with species level. Explain in detail about the Classification, Morphology, Clinical feature and Lab diagnosis of the above organism in brief.
4. Yersinia pestis.
5. Classify Vibrionaceae family. Explain in detail about the Morphology, cultural characteristics and lab diagnosis of Vibrio Cholera in brief.
6. Haemophilus ducreyi and Haemophilus aegyptius.
7. Legionnaires disease.
8. Relapsing fever.
9. Mycoplasma.
10. Lab diagnosis of Treponema pallidum.

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

1. How Shigella dysenteriae Type 1 cause arthritis?
2. Explain how Biofilm Production Act as a virulent factor for balance?
3. The treatment of Bacterial Vaginosis depends of Nugent scoring.
4. Eijkman test is more reliable than MPN (Most Probable Number).

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[MD 0723]

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

[MD 1223] DECEMBER 2023 Sub. Code: 2015
(OCTOBER 2023 EXAM SESSION)

M.D. DEGREE EXAMINATION

BRANCH IV – MICROBIOLOGY

PAPER II – SYSTEMATIC BACTERIOLOGY

Q.P. Code: 202015

Time: Three Hours **Maximum: 100 Marks**

I. Essay: **(2 x 15 = 30)**

1. Describe the Cell wall, pathogenesis, conventional, automated and molecular methods to detect Mycobacterium Tuberculosis.

2. Enumerate the aetiology, pathogenesis and laboratory diagnosis of Bacterial Meningitis.

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

1. Laboratory diagnosis of urinary tract infections.
2. Panton Valentine Leukocidin toxin.
3. Diptheroids causing infections.
4. Klebsiella granulomatis.
5. Non Gonococcal urethritis.
6. Bacteroides fragilis.
7. Q fever.
8. Satellitism.
9. Laboratory diagnosis of Lyme disease.
10. Tularemia.

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

1. Bacteria showing swarming growth was isolated repeatedly from a patient with urolithiasis.
2. Granules were observed better from growth on loeffler's serum slope.
3. A boy developed fever and myalgia with black eschar on his body.
4. Bacteria was isolated from cetrimide ointment used as antiseptic.

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