II – M.B.B.S. : JULY – 2019
SUBJECT : MICROBIOLOGY – I

Day : Friday
Date : 05/07/2019

Time : 2:00 p.m. to 4:00 p.m.
Max. Marks: 40

N.B.

1) All questions are **COMPULSORY.**
2) Figures to the right indicate **FULL** marks.
3) Draw neat and labelled diagrams **WHEREVER** necessary.

Q.1 **a)** A 7 year old boy presented to the emergency department with high grade fever, headache, disoriented and had projectile vomiting. On examination found to have neck rigidity. What is the likely diagnosis? Describe laboratory diagnosis of this condition. **(05)**

b) A 4 year old girl comes with fever. On examination child appears toxic and there is a dirty white patch on right foucial region. What is the likely diagnosis and how will you diagnose the case in laboratory? **(05)**

Q.2 **a)** Give Two examples of: **(05)**

i) Zoonotic diseases
ii) Atypical Mycobacteria
iii) Organisms causing food poisoning
iv) Diseases transmitted by rat flae
v) Killed vaccine

b) Define **OR** explain briefly: **(05)**

i) Nosocomial infection
ii) Toxoid
iii) Mutation
iv) Septicaemia
v) Selective medium

Q.3 **a)** Describe sterilisation by moist heat. **(05)**

b) Describe morphology of bacterial cell. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**

a) Nagler's reaction
b) Louise Pasteur
c) Non suppurative complications of Streptococcus pyogenes
d) RPR test
e) BCG vaccine
f) Satelitism

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II – M.B.B.S. : JULY– 2019
SUBJECT : MICROBIOLOGY PAPER – II

Day : Saturday
Date : 06/07/2019

Time : 2:00 p.m. to 4:00 p.m.
Max. Marks : 40

N.B.

1) All questions are **COMPULSORY.**
2) Figures to the right indicate **FULL** marks.
3) Draw neat labelled diagrams **WHEREVER** necessary.

Q.1 **a)** A 40 year old patient comes with history of passing loose stool with blood and mucus. He also complains of pain during defecation. What is the likely parasite to cause this condition? Describe laboratory diagnosis of this condition. **(05)**

b) A 25 year male comes with a circular ring like lesion on the scalp which has an erythematous border with scaling and inflammation. What is the likely diagnosis and how will you diagnose this condition in the laboratory? **(05)**

Q.2 **a)** Define hypersensitivity and describe type I hypersensitivity in detail. **(05)**

b) Enumerate serological reactions and describe agglutination reaction in detail. **(05)**

Q.3 **a)** Describe life cycle, pathogenicity and laboratory diagnosis of Ascaris lumbricoides. **(05)**

b) Describe laboratory diagnosis of viral infections. **(05)**

Q.4 Write short notes on **ANY FIVE** of the following: **(10)**

a) Rabies vaccines
b) Pathogenicity of candida albicans
c) Rhinosporidiosis
d) Complications of Plasmodium falciparum
e) HBsAg
f) Varicella zoster virus

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II – M.B.B.S.: WINTER – 2018
SUBJECT: MICROBIOLOGY – I

Day : Monday | Time: 2.00 PM to 4.00 PM
Date : 07/01/2019 | Max. Marks: 40

N.B.:

1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Draw neat and labelled diagrams **WHEREVER** necessary.

Q.1 **a)** A 30 year old male comes with painless indurated ulcer on external genitalia. He gives history of contact with commercial sex worker one month back. What is the likely diagnosis? Describe laboratory diagnosis of this condition. **[05]**

b) A 21 year old female comes with undiagnosed fever with relative bradycardia since 10 days. On examination there is splenomegaly, coated tongue and rose spots on the skin. What is the likely diagnosis? Describe laboratory diagnosis of this condition. **[05]**

Q.2 **a)** Give **TWO** examples of: **[05]**
i) Photochromogenic mycobacteria
ii) Live vaccines
iii) Anaerobic gram negative bacilli
iv) Citrate utilising bacteria
v) Infection caused by chlamydia

b) Define **OR** explain briefly: **[05]**
i) Plasmid
ii) Infection
iii) Disinfection
iv) Mesophilic bacteria
v) Toxoid

Q.3 **a)** Describe sterilisation by moist heat. **[05]**

b) Describe modes of transmission of genetic material. **[05]**

Q.4 Write short notes on **ANY FIVE** of the following: **[10]**
a) BCG vaccine
b) Weil-Felix test
c) Difference between classical and El Tor vibrios
d) Laboratory diagnosis of plague
e) Coagulase test
f) Laboratory diagnosis gas gangrene

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II – M.B.B.S.: WINTER – 2018
SUBJECT: MICROBIOLOGY – II

Day : Tuesday
Date : 08/01/2019

Time: 2.00 PM to 4.00 PM
Max. Marks: 40

N.B.:

1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Draw neat and labelled diagram **WHEREVER** necessary.

Q.1 **a)** A 25 year old male comes with history of gradual weight loss, persistent diarrhoea and generalised lymphadenopathy for last 6 months. He gives history of multiple sex partners. What is the likely diagnosis and describe laboratory diagnosis of this condition. **[05]**

b) A 35 year old man comes with complaint of long standing oedema on his left leg. On examination there is typically on pitting type of oedema. What is the likely parasitic infection? Describe laboratory diagnosis of this condition. **[05]**

Q.2 **a)** Describe type I hypersensitivity reaction. **[05]**

b) Describe mechanism of autoimmunity. **[05]**

Q.3 **a)** Describe pathogenicity of candida albicans and write laboratory diagnosis of candidiasis. **[05]**

b) Describe laboratory diagnosis malignant tertian malaria. **[05]**

Q.4 Write short notes on **ANY FIVE** of the following: **[10]**

a) Rhinosporidiosis
b) Prophylaxis of polio
c) Measles virus
d) Inclusion bodies
e) HBs Ag
f) Morphological classification of fungi

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SARASWATI-II : JULY-2018
SUBJECT : MICROBIOLOGY PAPER-I

Day: Thursday **Time: 2.00 pm To 4.00 pm**
Date: 05/07/2018 **Max. Marks: 40**

N.B.:

1) All questions are **COMPULSORY**.
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat diagrams **WHEREVER** necessary.

Q.1 **a)** A 30 year old male comes to the hospital with complaints of painless ulcer over the external genitalia. He gives history of exposure to commercial sex worker. What is the likely diagnosis? Describe the laboratory diagnosis of this condition. **(05)**

b) A 40 year old female patient is brought to the hospital with complaints of profuse watery diarrhoea and vomiting since last two days. On examination she appears mildly dehydrated and stool appears rice watery. What is the likely diagnosis? Describe laboratory diagnosis of this condition. **(05)**

Q.2 **a)** Give **TWO** examples: **(05)**

i) Transport media
ii) Non sporing anaerobes
iii) Atypical mycobacteria
iv) Disinfectant
v) Organisms causing meningitis

b) Define or explain briefly: **(05)**

i) Zoonosis
ii) Mutation
iii) Sterilisation
iv) Significant bacteriuria
v) Septicaemia

Q.3 **a)** Describe capsule, cell wall and flagella of bacterial cell. **(05)**

b) Describe antibiotic sensitivity testing methods. **(05)**

Q.4 Write short notes on **ANY FIVE** of the following: **(10)**

a) Nagler's reaction
b) Growth curve of bacteria
c) Widal test
d) Pathogenicity of Staphylococcus aureus
e) Satellitism
f) Koch's postulates

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SARASWATI-II : JULY-2018
SUBJECT : MICROBIOLOGY-II

Day: Friday **Time: 2.00 pm To 4.00 pm**
Date: 06/07/2018 **Max. Marks: 40**

N.B.:

1) **All questions are COMPULSORY.**
2) **Figures to the RIGHT indicate full marks.**
3) **Draw neat labeled diagrams WHEREVER necessary.**

Q.1 **a)** A 20 years old male patient comes with complaints of high grade fever, with chills. The fever recurs every third day. On examination there is anaemia and splenomegaly. What is the likely diagnosis? Describe laboratory diagnosis of this condition. **(05)**

b) A six month old bottle fed infant is brought to the hospital with history of mild fever. On examination there are creamy white patches on the oral mucosa. What is the likely diagnosis? Mention the causative agent and describe laboratory diagnosis in detail. **(05)**

Q.2 **a)** Define serological reactions. Describe agglutination reaction in detail. **(05)**

b) Describe mechanisms of autoimmune disease. **(05)**

Q.3 **a)** Describe life cycle of Ascaris lumbricoides and describe laboratory diagnosis of ascariasis. **(05)**

b) Describe laboratory diagnosis of HIV infection. **(05)**

Q.4 Write short notes on **ANY FIVE** of the following: **(10)**

a) Negri bodies
b) Morphological classification of fungi
c) Polio vaccine
d) Hydatid cyst wall
e) Microfilaria
f) HBs Ag

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SARASWATI-II: JULY 2017
SUBJECT: MICROBIOLOGY PAPER-I

Day : Wednesday
Date : 05/07/2017

Time: 2.00 pm To 4.00 pm
Max. Marks: 40.

N.B.:

1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat and labeled diagrams **WHEREVER** necessary.

Q.1 **a)** A 22 year old male comes to the hospital with a crush injury of his left leg following an accident. On examination the part appears swollen and there is a thin watery foul smelling discharge. On palpitation the part appears crepitant. What is the likely diagnosis? Describe the laboratory diagnosis of this condition. **(05)**

b) A 45 year old farmer complains of fever on and off, joint pains, headache and malaise. He gives the history of close association with animals. What is the likely diagnosis of this case? How will you carry out the laboratory diagnosis of this condition? **(05)**

Q.2 **a)** Give **TWO** examples of: **(05)**

i) Flagellated organisms
ii) Bacteria causing upper respiratory tract infections
iii) Media sterilized by Autoclave
iv) Urease positive organisms
v) Special stains in microbiology

b) Define **OR** explain briefly: **(05)**

i) Enrichment media
ii) Convalescent carrier
iii) Plasmids
iv) Conjugation
v) Toxoid

Q.3 **a)** Write in detail about the etiology and laboratory diagnosis of urinary tract infection. **(05)**

b) Describe briefly the growth requirements of bacteria. Add a note on the bacterial growth curve. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**

a) Elek's gel precipitation test
b) BCG vaccine
c) Blood culture
d) Standard tests for syphilis
e) Bacterial drug resistance
f) Robert Koch

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SARASWATI-II: JULY 2017
SUBJECT: MICROBIOLOGY PAPER-II

Day : Thursday
Date : 06/07/2017

Time: 2.00 pm To 4.00 pm
Max. Marks: 40.

N.B.:

1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat labeled diagrams **WHEREVER** necessary.

Q.1 a) A 55 year old man presents with chief complains of fever with chills appearing every third day since last 10 days. On examination there is splenomegaly. What is the likely diagnosis? Describe the laboratory diagnosis of this condition. **(05)**

b) A 24 year old male patient comes to the dermatology OPD with a circular circumscribed erythematous lesion with scaling edges on his back. What is the likely diagnosis? Describe the laboratory diagnosis of this condition. **(05)**

Q.2 a) Describe the structure and important properties of IgM. **(05)**

b) What are the different types of antigen-antibody reactions? Mention precipitation reactions in detail. **(05)**

Q.3 a) Discuss the etiology and laboratory diagnosis of cryptococcal meningitis. **(05)**

b) Write in detail about viral multiplication. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**

a) Inclusion bodies

b) Polio vaccine

c) Free-living amoeba

d) Giardia lamblia

e) Histoplasmosis

f) Measles virus

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Saraswati-II Jan-2017

Subject:- microbiology

Paper:- I

Day : Thursday
Date : 05/01/2017

Time : 2.00 pm To 4.00 pm
Max. Marks : 40.

N.B.:

1) All questions are **COMPULSORY**.
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat and labeled diagrams **WHEREVER** necessary.

Q.1 a) A 24 year old male patient comes with a typical step ladder type pyrexia of 10 days duration. On examination there is a palpable spleen, coated tongue and rose spots on his skin. What is the likely diagnosis and how will you diagnose it in the laboratory. **(05)**

b) A 45 year old farmer complains of fever on and off, joint pains, headache and malaise. He gives the history of close association with animals. What is the likely diagnosis of this case? How will you carry out the laboratory diagnosis of this condition? **(05)**

Q.2 a) Give **TWO** examples of: **(05)**

i) Media sterilized by inspissation
ii) Non sporing Anaerobes
iii) Special stains in Microbiology
iv) Bacteria causing Meningitis
v) Diseases transmitted via contaminated food and water.

b) Define or explain briefly: **(05)**

i) Conjugation
ii) Attenuation
iii) Convalescent carrier
iv) Tyndallisation
v) Pandemic.

Q.3 a) Describe briefly the growth requirements of bacteria. Add a note on the bacterial growth curve. **(05)**

b) Define Nosocomial infections. Enumerate two common causative bacterial agents. Describe the methods to prevent them. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**

a) Lepromin test
b) Standard tests for syphilis
c) DPT vaccine
d) Hot air oven
e) Mutation
f) Methods of Anaerobiosis.

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SARASWATI-II: JANUARY 2017
SUBJECT: MICROBIOLOGY PAPER-II

Day : Friday
Date : 06/01/2017

Time: 2.00 pm To 4.00 pm
Max. Marks: 40.

N.B.:

1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat labeled diagrams **WHEREVER** necessary.

Q.1 **a)** A middle aged man with a history of exposure develops weakness, weight loss and diarrhea for more than two weeks. What is the likely diagnosis? Describe the laboratory diagnosis of this condition. **(05)**

b) A 22 years old boy has reported to the hospital with signs and symptoms of pain and a lump in the right hypochondrium. Patient gives history of having a pet dog at home. What is the probable diagnosis? How will you proceed for the laboratory diagnosis? **(05)**

Q.2 **a)** Describe the factors affecting antibody production. **(05)**

b) What are the different types of antigen-antibody reactions? Mention agglutination reactions in detail. **(05)**

Q.3 **a)** Write on pathogenesis and laboratory diagnosis of candida albicans. **(05)**

b) Describe morphology and life cycle of Ascaris lumbricoides. Write on laboratory diagnosis of infection due to this parasite. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**

a) Mucormycosis

b) Enterobius vermicularis

c) Dengue virus

d) Rhinosporidiosis

e) Cysticercous cellulosae

f) Tissue culture.

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SARASWATI – II: JANUARY – 2016
SUBJECT: MICROBIOLOGY PAPER – I

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Day: Monday | Time: 2.00 p.m. to 4.00 p.m.
Date: 04/ 01/ 2016 | Max. Marks: 40

N.B.:
1) All questions are **COMPULSORY.**
2) Figures to the right indicate **FULL** marks.
3) Draw neat diagrams **WHEREVER** necessary.

Q.1 a) A 25 years old lady was brought to the medicine OPD with complaints of high grade fever, burning micturition, increased frequency since 3 days. On examination patient had 101^0F temperature, pulse was 80/min. She had suprapubic tenderness. Her urine sample was turbid. What is the most likely diagnosis? Describe the laboratory diagnosis for this patient. **(05)**

b) An 8 year old boy presented with acute fever, headache, vomiting and stiff neck. His condition deteriorated very fast and needed urgent admission in intensive pediatrics ward. Name MOST likely bacterial cause of this condition. Describe the laboratory diagnosis. **(05)**

Q.2 a) Give Two examples of: **(05)**
- i) Organisms causing sore throat
- ii) Clinical conditions where blood culture is indicated
- iii) Bacteria that are transmitted by bite of vectors
- iv) Spore forming bacteria
- v) Capnophilic bacetria

b) Define or explain briefly: **(05)**
- i) Mutation
- ii) Capsule
- iii) Selective media
- iv) Fastidious bacteria
- v) Plasmids

Q.3 a) Enumerate the methods of moist heat sterilization. Describe in detail working and uses of autoclave. **(05)**

b) Describe toxigenicity tests in the diagnosis of Diphtheria. **(05)**

Q.4 Write short notes on **ANY FIVE** of the following: **(10)**

a) Bacterial flagella
b) Robert Koch
c) Nagler's reaction
d) Tuberculin test
e) TRIC agents
f) Malignant pustule

SARASWATI – II: JANUARY – 2016
SUBJECT: MICROBIOLOGY PAPER – II

Day: Tuesday | Time: 2.00 p.m. to 4.00 p.m.
Date: 05/ 01/ 2016 | Max. Marks: 40

N.B.:

1) All questions are **COMPULSORY.**
2) Figures to the right indicate **FULL** marks.
3) Draw neat diagrams **WHEREVER** necessary.

Q.1 a) A 35 year male comes with complains of passing loose motions with blood and mucus. He also complains of pain during defecation. What is the likely parasite to cause this condition? Describe the laboratory diagnosis of this condition. **(05)**

b) A 45 year old male comes with massive swelling of right lower limb. The swelling is typically hard and non-pitting. Skin of affected part is thickened. What is the likely diagnosis? Describe the life cycle of the parasite and write the laboratory diagnosis of this condition. **(05)**

Q.2 a) Define precipitation reaction and mention its types. Give examples of precipitation reactions used in diagnostic Microbiology. **(05)**

b) Describe the structure of immunoglobulin and add a note on IgA. **(05)**

Q.3 a) Describe laboratory diagnosis of HIV infection. **(05)**

b) Write on Mycetoma with respect to clinical presentation, causative agents and laboratory diagnosis of this condition. **(05)**

Q.4 Write short notes on **ANY FIVE** of the following: **(10)**

a) Candidasis
b) Aspergillosis
c) Polio vaccines
d) Inclusion bodies
e) Trichomonas vaginalis
f) Cysticercous cellulosae

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SARASWATI – II: JULY – 2015
SUBJECT : MICROBIOLOGY – I

Day : Saturday
Date : 04/07/2015

Time : 2.00 pm to 4.00 pm
Max. Marks : 40

N.B.:

1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Draw neat diagrams **WHEREVER** necessary.

Q.1 a) A 40 year old female patient is brought to the hospital with complaints of profuse watery diarrhea and vomiting since last two days. On examination she appears mildly dehydrated and stool appears rice water like. What is the likely diagnosis? Describe the laboratory diagnosis of this condition? **[05]**

b) A 26 year old male patient comes to the OPD with a painless, indurated, circumscribed superficial ulcer on his external genitalia. He also gives history of contact with a commercial sex worker one month back. What is the likely diagnosis? Describe the laboratory diagnosis of this condition. **[05]**

Q.2 a) Give two examples: **[05]**

i) Capsulated bacteria.
ii) Bacteria causing zoonotic infections.
iii) Capnophilic bacteria.
iv) Spore forming bacteria.
v) Atypical Mycobacteria.

b) Define or explain briefly: **[05]**

i) Transduction.
ii) Plasmid.
iii) Disinfection.
iv) Endemic disease.
v) Log phase.

Q.3 a) Classify various culture media with examples and write their uses in clinical microbiology laboratory. **[05]**

b) Describe antibiotic sensitivity tests. **[05]**

Q.4 Write short notes on **ANY FIVE** of the following: **[10]**

a) Coagulase test
b) Hot air oven
c) Nagler's reaction
d) Satellitism.
e) Elek's gel precipitation test
f) Mycoplasma pneumoniae

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SARASWATI – II: JULY – 2015
SUBJECT : MICROBIOLOGY – II

Day : Monday
Date : 06/07/2015

Time : 2.00 pm to 4.00 pm
Max. Marks : 40

N.B.:

1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Draw neat and labeled diagram **WHEREVER** necessary.

Q.1 a) A 35 year old male patient comes with complaints of passing loose motions with blood and mucus. He also complains of pain during defecation. What is the likely parasite to cause this condition? Describe the laboratory diagnosis of this condition. [05]

b) A 24 year old male patient comes to the dermatology OPD with a circular circumscribed erythematous lesion with scaling edges on his back. What is the likely diagnosis? Describe the laboratory diagnosis of this condition. [05]

Q.2 a) Define hypersensitivity. Describe Type – I Hypersensitivity. [05]

b) Define Serological reactions. Describe agglutination reactions in detail. [05]

Q.3 a) Describe laboratory diagnosis of HIV infection. [05]

b) Describe morphology, life cycle and laboratory diagnosis of Echinococcus granulosus. [05]

Q.4 Write short notes on ANY FIVE of the following: [10]

a) Inclusion bodies
b) Polio vaccines
c) Rhinosporidiosis
d) Aspergillosis
e) Tissue culture
f) Histoplasmosis

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SARASWATI-II : JANUARY 2015
SUBJECT : MICROBIOLOGY PAPER-I

Day : Monday
Date : 05/01/2015

Time : 2.00 pm to 4.00 pm
Max. Marks : 40.

N.B.:

1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat diagrams **WHEREVER** necessary.

Q.1 a) A 22 year old male comes to the hospital with a crush injury of his left leg following an accident. On examination the part appears swollen and there is a thin watery, foul smelling discharge. On palpation the part appears crepitant. What is the likely diagnosis? Describe the laboratory diagnosis of this condition. **(05)**

b) A 23 year old pregnant female comes with complaints of increased frequency and burning micturition since last four days. She also complains of lower abdominal pain and is febrile. What is the likely diagnosis? Describe the laboratory diagnosis of this condition. **(05)**

Q.2 a) Give two examples: **(05)**

i) Rickettsial infections.
ii) Atypical Mycobacteria.
iii) Urease positive bacteria.
iv) Sexually transmitted bacterial diseases.
v) Standard tests for syphilis.

b) Define or explain briefly: **(05)**

i) Disinfection.
ii) Mutation.
iii) Paradoxical Carrier.
iv) Epidemic disease.
v) Selective media.

Q.3 a) Describe different methods of gene transfer in bacteria. **(05)**

b) Define sterilization and describe sterilization by moist heat. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**

a) Tuberculin test
b) Blood culture
c) Toxigenicity testing for C.diphtheriae
d) TRIC agents
e) Pathogenecity of staphylococcus aureus
f) Malignant pustule.

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SARASWATI-II : JANUARY 2015
SUBJECT : MICROBIOLOGY PAPER-II

Day : Tuesday
Date : 06/01/2015

Time : 2.00 pm to 4.00 pm
Max. Marks : 40.

N.B.:

1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat labeled diagrams **WHEREVER** necessary.

BHARATI VIDYAPEETH'S LIBRARY 54 COLLEGE PUNE

Q.1 a) A 45 year old male comes with massive swelling of right lower limb. The swelling is typically hard and non-pitting. Skin of affected part is thickened. What is the likely diagnosis? Describe the life cycle of the parasite and write the laboratory diagnosis of this conclusion. **(05)**

b) A 35 year old truck driver scropositive for HIV admitted with complains of fever, headache, vomiting and neck rigidity. What is the likely diagnosis? Which is the likely fungus to cause this condition? Describe the laboratory diagnosis. **(05)**

Q.2 a) Describe the structure of immunoglobulin and add a note on IgA. **(05)**

b) Define hypersensitivity. Describe Type-IV hypersensitivity. **(05)**

Q.3 a) Describe the laboratory diagnosis of Hepatitis B infection. **(05)**

b) Describe pathogenicity and laboratory diagnosis of Entamoeba histolytica. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**

a) Tissue culture

b) Candidiasis

c) Rabies vaccines

d) Giardia lamblia

e) Mycetoma

f) Mycotoxins.

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SARASWATI-II : JULY 2014
SUBJECT : MICROBIOLOGY PAPER-I

Day : Friday
Date : 04/07/2014

Time : 2.00 pm To 4.00 pm
Max. Marks : 40.

N.B.:

1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat diagrams **WHEREVER** necessary.

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a) A 24 year old male patient comes with a typical step ladder type of pyrexia of 10 days duration. On examination there is a palpable spleen, coated tongue and rose spots on his skin. What is the likely diagnosis and how will you diagnosis it in the laboratory. **(05)**

b) A 5 year old boy comes with history of fever since 2-3 days. On examination a dirty grayish white patch is seen in his tonsillar region and child appears toxic. What is the likely diagnosis? Describe the laboratory diagnosis of this condition. **(05)**

2 **a)** Give two examples of: **(05)**

i) Non spore forming anaerobic bacteria
ii) Atypical Mycobacteria
iii) Pigment producing bacteria
iv) Selective media
v) Killed vaccines.

b) Define or explain briefly: **(05)**

i) Mutation
ii) Contact carrier
iii) Transduction
iv) Enriched media
v) Endemic disease.

.3 **a)** Describe antibiotic sensitivity testing. **(05)**

b) Describe growth requirements of bacteria and add a note on growth curve. **(05)**

.4 Write short notes on any **FIVE** of the following: **(10)**

a) Autoclave
b) Coagulase test
c) Satellitism
d) VDRL test
e) Anaerobic jar
f) Mycoplasma pneumoniae.

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SARASWATI-II : JULY 2014
SUBJECT : MICROBIOLOGY PAPER-II

Day : Saturday
Date : 05/07/2014

Time : 2.00 pm To 4.00 pm
Max. Marks : 40.

N.B.:

1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat labeled diagrams **WHEREVER** necessary.

Q.1 a) A 17 year old girl comes with a history of fever associated with chills and rigors, which recurs every third day. On examination there is spleenomegaly. What is the likely diagnosis? Describe the laboratory diagnosis of this condition. **(05)**

b) A 6 month old bottle fed infant is brought to the pediatric OPD with white patches on oral mucosa. What is the likely fungus to cause this condition? Describe the laboratory diagnosis of this condition. **(05)**

Q.2 a) Define Serological reaction. Enumerate serological reactions and describe agglutination reactions. **(05)**

b) Describe Anaphylaxis type of hypersensitivity in detail. **(05)**

Q.3 a) Describe laboratory diagnosis of HIV infection. **(05)**

b) Describe the life cycle and pathogenicity of Ancylostoma duodenale. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**

a) Dermatophytes

b) HBsAg

c) Tissue culture

d) Rabies vaccine

e) Microfilaria

f) Aspergillosis.

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SARASWATI - II: JANUARY - 2014
SUBJECT: MICROBIOLOGY PAPER -I

Day: Monday
Date: 06/01/2014

Time: 2.00 p.m. To 4.00 p.m.
Max Marks: 40

N.B.:

1) All questions are **COMPULSORY**.
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat diagrams **WHEREVER** necessary.

Q.1 **a)** A 28 year old male patient comes to the OPD with a painless, indurated, circumscribed superficial ulcer on his external genitalia. He also gives history of contact with a commercial sex worker one month back. What is the likely diagnosis? Describe the laboratory diagnosis of this condition. **(05)**

b) A 29 year female patient comes with complaints of increased frequency and burning micturition since last two days. She also complains of lower abdominal pain and is febrile. What is the likely diagnosis? Describe the laboratory diagnosis of this condition. **(05)**

Q.2 **a)** Give two examples of: **(05)**

i) Organisms causing lower respiratory tract infections
ii) Transport media used for Vibrio Cholerae
ii) Non-Tuberculous Mycobacteria
iv) Capnophilic organisms
v) Anaerobic organisms

b) Define or explain briefly: **(05)**

i) Transformation
ii) Fastidious organisms
ii) Selective media
iv) Atypical infection
v) Bacteremia

Q.3 **a)** Describe the various types of culture media used in clinical microbiology laboratories. **(05)**

b) Describe the morphology of the bacterial cell. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**

a) Louis Pasteur

b) Group B Streptococci

c) Laboratory diagnosis of Gonnorhoea

d) Shigellosis

e) Bacterial toxins

f) Lepra reactions

SARASWATI-II : JANUARY 2014
SUBJECT : MICROBIOLOGY PAPER-II

50

Day : Tuesday
Date : 07/01/2014

Time : 2.00 pm To 4.00 pm
Max. Marks : 40.

N.B.

1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat labeled diagrams **WHEREVER** necessary.

Q.1 a) A 40 year old patient comes with complaints of passing loose motions with blood and mucous. He also complains of pain during defecation. What is the likely parasite to cause this condition? Describe the laboratory diagnosis of this condition. **(05)**

b) A 20 year old patient comes to the dermatology clinic with a circular circumscribed erythymatous lesion with scaling edges on his back. What is the likely diagnosis? Describe the laboratory diagnosis of this condition. **(05)**

Q.2 a) Describe the factors affecting antibody production. **(05)**

b) Enumerate antigen antibody reactions and describe precipitation reactions. **(05)**

Q.3 a) Describe in detail about cultivation of viruses. **(05)**

b) Describe the lifecycle and pathogenicity of Ascaris lumbricoides. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**

a) Mycetoma

b) Pathogenicity and laboratory diagnosis of Candida albicans

c) Measles virus

d) Polio vaccine

e) Mycotoxins

f) Cysticercosis.

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SARASWATI-II : JULY 2013
SUBJECT : MICROBIOLOGY PAPER-I

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Day : Friday
Date : 05/07/2013

Time : 2.00 pm To 4.00 pm
Max. Marks : 40.

N.B.:

1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat diagrams **WHEREVER** necessary.

Q.1 a) A 25 year old male patient is brought to the trauma centre with a crush injury of his left leg following a road accident. On examination the part appeared swollen and crepitant. There was a foul smelling serosanguinous discharge from the wound and the patient appeared toxic. What is the likely diagnosis? Describe the laboratory diagnosis of this condition. **(05)**

b) A 45 year old female patient is brought to the hospital with complaints of profuse watery diarrhea and vomiting since last 2 days. On examination she appears mildly dehydrated and the stool appears rice water like. What is the likely diagnosis? Describe the laboratory diagnosis of this condition. **(05)**

Q.2 a) Give **TWO** examples of - **(05)**

i) Organisms causing nosocomial infections.
ii) Flagellated organisms.
iii) Enriched media.
iv) Toxigenicity tests for Corynebacterium diphtheriae.
v) Rickettsial infections.

b) Define or explain briefly. **(05)**

i) Transposon.
ii) Zoonotic infection.
iii) Paradoxical carrier.
iv) Iatrogenic infection.
v) Pandemic.

Q.3 a) Define sterilization. Describe moist heat sterilization. **(05)**

b) Describe the virulence factors of bacteria. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**

a) Coagulase test
b) Widal test
c) Atypical mycobacteria
d) Weil's disease
e) Satellitism
f) Bacterial growth curve.

SARASWATI-II : JULY 2013
SUBJECT : MICROBIOLOGY PAPER-II

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Day : Saturday
Date : 06/07/2013

Time : 2.00 pm To 4.00 pm
Max. Marks : 40.

N.B.:

1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat labeled diagrams **WHEREVER** necessary.

Q.1 a) A 30 year old female patient comes with complaints of foul smelling curdy white vaginal discharge. What is the likely fungus to cause this infection? Describe the laboratory diagnosis of this condition. **(05)**

b) A 25 year old male patient comes with history of increased irritability and anxiousness following a dog bite. What is the likely condition? Describe laboratory diagnosis of this condition. Add a note on its prophylaxis. **(05)**

Q.2 a) Classify hypersensitivity reactions and describe Anaphylaxis in detail. **(05)**

b) Differentiate between active and passive immunity. **(05)**

Q.3 a) Describe the laboratory diagnosis of Malignant tertian malaria. **(05)**

b) Describe the life cycle and laboratory diagnosis of Ancylostoma duodenale. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**

a) Aspergillosis

b) Rhinosporidiosis

c) Tissue culture

d) Interferon

e) HBs Ag

f) Ig G.

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SARASWATI-II : JANUARY 2013
SUBJECT : MICROBIOLOGY PAPER-I

Day : Saturday
Date : 05/01/2013

Time : 2.00 pm To 4.00 pm
Max. Marks : 40.

N.B.:

1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat diagrams **WHEREVER** necessary.

Q.1 a) A 4 year old boy comes with history of fever. On examination a greyish white patch is seen in the right faucial region and the child appears toxic. What is the likely diagnosis? Describe the steps of laboratory diagnosis of this case. **(05)**

b) A 45 year old farmer complains of fever on and off, joint pains, headache and malaise. He gives the history of close association with animals. What is the likely diagnosis of this case? How will you carry out the laboratory diagnosis of this condition? **(05)**

Q.2 a) Give **TWO** examples of : **(05)**

i) Non motile bacteria
ii) Bacteria causing urinary tract infection
iii) Oxidase positive organisms
iv) Standard tests for syphilis
v) Media sterilized by inspissation

b) Define or explain briefly: **(05)**

i) Psychrophilic organisms
ii) Cold sterilization
iii) Septicaemia
iv) Healthy carrier
v) Enrichment media.

Q.3 a) Describe the morphology of the bacterial cell. **(05)**

b) Describe genetic mechanisms of drug resistance in bacteria. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**

a) Robert Koch
b) Differences between Classical and El tor vibrios
c) Autoclave
d) Weil Felix reaction
e) Lepromin test
f) Widal test.

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SARASWATI – II : JANUARY 2013
SUBJECT : MICROBIOLOGY – II

Day : Monday
Date : 07/01/2013

Time : 2.00 To 4.00 pm
Max. Marks : 40

N.B.:

1) All questions are **COMPULSORY**.
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat labeled diagrams **WHEREVER** necessary.

Q.1 **a)** A 45 year old man coming from Bihar comes with complaints of weight loss, a dark pigmented skin and brittle hair. On examination there is spleenomegaly. What is the likely diagnosis? Describe the laboratory diagnosis of this condition. **[05]**

b) A 5 month old bottle fed infant is brought to the paediatric OPD with white patches on the oral mucosa. What is the likely fungus to cause this condition? Describe the laboratory diagnosis for this condition. **[05]**

Q.2 **a)** Enumerate Antigen Antibody reaction. Describe agglutination reactions with examples. **[05]**

b) Classify hypersensitivity reactions and describe in detail about Anaphylaxis. **[05]**

Q.3 **a)** Describe the steps used in the laboratory diagnosis of HIV infection. **[05]**

b) Describe the life cycle and pathogenicity of Ancylostoma duodenale. **[05]**

Q.4 Write short notes on **ANY FIVE** of the following: **[10]**

a) Inclusion Body

b) Histoplasmosis

c) Differences between T and B lymphocyte

d) Rabies Vaccine

e) Chromoblastomycosis

f) Tinea Versicolor

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SARASWATI-II : JULY 2012
SUBJECT : MICROBIOLOGY PAPER-I

Thursday : 05/07/2012 | Time : 2.00 pm To 4.00 pm | Max. Marks : 40.

N.B.:
1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat diagrams **WHEREVER** necessary.

Q.1 a) A 25 year old female comes with history of fever along with increased frequency and burning micturition of 2 days duration. She also complains of lower abdominal pain. What is the likely diagnosis and describe the laboratory diagnosis of this condition. (05)

b) A 30 year old male comes to the dermatology OPD with an ulcer on his penis with history of exposure. The ulcer is circumscribed, indurated and painless. Describe the laboratory diagnosis of this condition. (05)

Q.2 a) Give TWO examples of : (05)
i) Articles sterilized in the hot air over.
ii) Organisms producing exotoxins.
iii) Capsulated organisms.
iv) Organisms producing meningitis.
v) Non-sporing anaerobes.

b) Define an explain briefly : (05)
i) Transduction.
ii) Attenuation.
iii) Iatrogenic infection.
iv) Convalescent carrier.
v) Disinfection.

Q.3 a) Describe briefly the growth requirements of bacteria. Add a note on the bacterial growth curve. (05)

b) Draw a neat labeled diagram of the bacterial cell. Describe the bacterial cell wall, capsule, flagella and spore in detail. (05)

Q.4 Write short notes on any **FIVE** of the following: (10)

a) Louis Pasteur.
b) Laboratory diagnosis of Meningococcal meningitis.
c) Naglers reaction.
d) Classification of Atypical Mycobacteria.
e) Weil Felix reaction.
f) Halophilic vibrio.

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SARASWATI-II : JULY 2012
SUBJECT : MICROBIOLOGY PAPER-II

Day : Friday
Date : 06/07/2012

Time : 2.00 pm To 4.00 pm
Max. Marks : 40.

N.B.:

1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat labeled diagrams **WHEREVER** necessary.

Q.1 **a)** A 25 year old female patient comes with a circular circumscribed erythematous lesion with scaling edges on the scalp. What is the likely fungus to cause this condition? Describe the laboratory diagnosis of this condition. **(05)**

b) A middle aged man with a history of exposure develops weakness, weight loss and diarrhea for more than two weeks. What is the likely diagnosis? Describe laboratory diagnosis of this condition. **(05)**

Q.2 **a)** Enumerate Antigen-antibody reactions. Describe precipitation reactions in detail. **(05)**

b) Discuss mechanisms of Autoimmunity. **(05)**

Q.3 **a)** Describe the morphology and life cycle of Giardia lamblia. Add a note on laboratory diagnosis of Giardiasis. **(05)**

b) Describe the laboratory diagnosis of Hydatid disease. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**

a) Polio vaccine.
b) Interferon.
c) Sporotrichosis.
d) IgA
e) Tissue culture.
f) Morphological classification of fungi.

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SARASWATI-II : JANUARY 2012
SUBJECT : MICROBIOLOGY PAPER-I

Day : Thursday
Date : 05/01/2012

Time : 2.00 pm to 4.00 pm
Max. Marks : 40.

N.B.:
1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat diagrams wherever necessary.

Q.1 a) A 35 year old male patient comes with history of loss of weight, low grade fever with evening rise of temperature along with cough with expectoration of 1 month duration. What is the likely diagnosis? Discuss the laboratory diagnosis of this condition. **(05)**

b) A 5 year old child presents with fever, headache and vomiting of 2 days duration. On clinical examination the child shows neck rigidity. Name the common organisms causing this condition and discuss the laboratory diagnosis of this condition. **(05)**

Q.2 a) Give **TWO** examples of : **(05)**
i) Motile organisms
ii) Media used for growth of Leptospira
iii) Oxidase positive organisms
iv) Organisms causing wound infection
v) Halophilic vibrios.

b) Define the following : **(05)**
i) Thermophilic bacteria
ii) Carrier
iii) Pandemic
iv) Pathogenicity
v) Zoonotic infection.

Q.3 a) Define sterilization. Discuss methods of dry heat sterilization. **(05)**

b) Describe the various mechanisms of drug resistance in bacteria. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**
a) Bacterial capsule
b) Bacterial toxins
c) Toxigenicity testing for Corynebacterium diphtheriae
d) Widal test
e) Laboratory diagnosis of plague
f) Non suppurative infections of Streptococcus pyogenes.

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SARASWATI-II : JANUARY 2012
SUBJECT : MICROBIOLOGY PAPER-II

Day : Friday
Date : 06/01/2012

Time : 2.00 pm to 4.00 pm
Max. Marks : 40.

N.B.:

1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw diagrams wherever necessary.

Q.1 a) A 6 month old bottle fed infant is brought to the paediatrics OPD with curdy white patches on the oral mucosa. What is the likely fungus to cause this condition? Discuss the laboratory diagnosis of this condition. **(05)**

b) A 17 year old student comes with a history of loose stools with blood and mucous from last 4 days. He also gives history of abdominal pain. What is the likely parasite to cause this condition? Discuss laboratory diagnosis of this condition. **(05)**

Q.2 a) Describe factors affecting antibody production. **(05)**

b) Describe the structure of immunoglobulins and describe important properties of IgG. **(05)**

Q.3 a) Discuss the laboratory diagnosis of HIV infection. **(05)**

b) Describe the life cycle and pathogenicity of Ancylostoma duodenale. Discuss the laboratory diagnosis of Ancylostoma duodenale infection. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**

a) Serum sickness
b) Histoplasma capsulatum
c) Inclusion body
d) Polio vaccine
e) HB_sAg
f) Mycetoma.

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SARASWATI-II : JULY 2011
SUBJECT : MICROBIOLOGY PAPER-II

Day : Tuesday
Date : 05/07/2011

Time : 2.00 pm To 4.00 pm
Max. Marks : 40.

N.B.:

1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat diagrams wherever necessary.

Q.1 a) A middle aged man with a known positive HIV status develops fever, neck rigidity and vomiting. What is the likely fungus causing this condition? Discuss the pathogenesis and laboratory diagnosis of this condition. (05)

b) A 18 year old girl comes with a history of fever associated with chills and rigors which recurs every third day. There are no other complications. What is the likely diagnosis? Describe the laboratory diagnosis of this condition. (05)

Q.2 a) Describe Type IV hypersensitivity. (05)

b) Enumerate antigen antibody reactions. Discuss agglutination reactions in detail. (05)

Q.3 a) Discuss cultivation of viruses. (05)

b) Describe laboratory diagnosis of Filariasis. (05)

Q.4 Write short notes on any **FIVE** of the following: (10)

a) Rhinosporidiosis
b) Laboratory diagnosis of Dermatophyte infection.
c) Interferon
d) IgM
e) Prophylaxis of rabies
f) Dengue virus.

Q.3

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SARASWATI-II : JULY 2011
SUBJECT : MICROBIOLOGY PAPER-I

Day : Monday
Date : 04/07/2011

Time : 2.00 pm To 4.00 pm
Max. Marks : 40.

N.B.:
1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat diagrams wherever necessary.

Q.1 a) A 22 year old male comes with a typical step ladder type of pyrexia of 4 day's duration. On examination there is a soft palpable spleen and a coated tongue. What is the likely diagnosis? Describe the laboratory diagnosis of this condition. **(05)**

b) A 18 year old boy comes to the hospital with a crush injury of his left leg following a motor cycle accident. On examination the part appears swollen and there is a thin watery, foul smelling discharge. On palpation the part appears crepitant. What is the likely diagnosis? Describe the laboratory diagnosis of this condition. **(05)**

Q.2 a) Give **TWO** examples of : **(05)**
i) Bacterial zoonotic diseases
ii) Catalase positive organisms
iii) Enrichment media
iv) Organisms causing meningitis
v) Organisms causing diarrhea.

b) Define or explain briefly. **(05)**
i) Significant bacteriuria
ii) Capnophilic bacteria
iii) Paradoxical carrier
iv) Transduction
v) Secondary infection.

Q.3 a) Discuss the genetic mechanisms of drug resistance. **(05)**

b) Define sterilization. Describe the Autoclave in detail. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**
a) Lepromin test
b) Weil Felix reaction
c) Elek's gel precipitation test
d) Satellitism
e) Difference between classical and El Tor vibrios
f) Standard tests for syphilis

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SARASWATI-II : JANUARY 2011
SUBJECT : MICROBIOLOGY PAPER-I

Day : Wednesday
Date : 05/01/2011

Time : 2.00 pm To 4.00 pm
Max. Marks : 40.

N.B.:
1) All questions are **COMPULOSRY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat diagrams **WHEREVER** necessary.

Q.1 a) A veterinary doctor complains of irregular fever with joint pain since two weeks. What is the probable diagnosis in relation to his occupation? Write about the laboratory diagnosis of this condition. **(05)**

b) About 15 persons of different age groups of both sexes were brought to hospital with complaints of profuse watery diarrhoea, vomiting and dehydration. What is probable diagnosis? Write about the laboratory diagnosis of this condition. **(05)**

Q.2 a) Give **TWO** examples of : **(05)**
i) Bacteria causing pyogenic meningitis.
ii) Secondary mediators of anaphylaxis
iii) Gram negative anaerobic bacilli
iv) Non suppurative complications of stereptococcus pyogenes
v) Diseases transmitted by arthropods.

b) Define the following: **(05)**
i) Nosocomial infections
ii) Significant bacteriuria
iii) Tyndallisation
iv) Toxoid
v) Zoonotic diseases

Q.3 a) Classify the culture medias with examples. **(05)**

b) Explain mechanisms used by bacteria in antibiotic resistance. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**
a) V.D.R.L. Test
b) Differences between Exotoxin and Endotoxin
c) B.C.G. vaccine
d) Elek's gel precipitation test
e) Helicobacter pylori
f) Macconkey's agar.

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SARASWATI-II : JANUARY 2011
SUBJECT : MICROBIOLOGY PAPER-II

Day : Thursday
Date : 06/01/2011

Time : 2.00 pm To 4.00 pm
Max. Marks : 40.

N.B.:

1) All questions are **COMPULOSRY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat labeled diagrams **WHEREVER** necessary.

Q.1 a) A 35 year old Bihari labourer came to the Medicine OPD with the complaints of fever and weight loss. On examination he showed massive splenomegaly. His relatives informed that similar cases were common at their village in Bihar. All the laboratory tests for Malaria were found to be negative. What is the probable diagnosis? How will you confirm it? **(05)**

b) A 40 year old truck driver with HIV antibody positive presents with signs and symptoms of meningitis. What is the common fungal agent causing this condition? Write the laboratory diagnosis of this condition. **(05)**

Q.2 a) Mention the differences between active and passive immunity. **(05)**

b) Define hypersensitivity. Describe Type-I hypersensitivity. **(05)**

Q.3 a) Write on pathogenesis and laboratory diagnosis of candida albicans. **(05)**

b) Briefly discuss the laboratory diagnosis of viral dirrhoea. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**

a) Laboratory diagnosis of Hepatitis B infection

b) Giardia lamblia

c) Laboratory diagnosis of Dengue fever

d) Autoimmunity

e) Onchogenic viruses

f) Cysticercosis

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SARASWATI-II : JULY 2010
SUBJECT : MICROBIOLOGY PAPER-I

Day : Monday
Date : 05/07/2010

Time : 2.00 pm To 4.00 pm
Max. Marks : 40.

N.B.:
1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat diagrams **WHEREVER** necessary.

Q.1 a) A 29 year old pregnant female presents with frequency and burning micturition and pain in the suprapubic region. What is the probable diagnosis? Write about the laboratory diagnosis of the above condition. **(05)**

b) A 4 month old baby comes with fever vomiting and neck rigidity. What is the most common clinical diagnosis? How will you microbiologically evaluate this case? **(05)**

Q.2 a) Give **TWO** examples of : **(05)**
i) Non suppurative complications of Streptococcus pyogenes.
ii) Culture media used for Corynebacterium diphtheriae
iii) Discoveries made by Robert Koch
iv) Exotoxin producing bacteria
v) Citrate positive bacteria.

b) Define or explain briefly : **(05)**
i) Plasmid
ii) Septicaemia
iii) Iatrogenic infection
iv) Attenuation
v) Quellung phenomenon.

Q.3 a) Describe growth requirements of bacteria and the bacterial growth curve. **(05)**

b) Define sterilization. Discuss methods of dry heat sterilization. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**
a) Widal test
b) Malignant pustule
c) Bacterial capsule
d) TRIC agents
e) Bacterial toxins
f) Lepromin test.

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SARASWATI-II : JULY 2010
SUBJECT : MICROBIOLOGY PAPER-II

36

Day : Tuesday
Date : 06/07/2010

Time : 2.00 pm To 4.00 pm
Max. Marks : 40.

N.B.:

1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat labeled diagrams **WHEREVER** necessary.

Q.1 **a)** A 5 month old bottle fed infant comes with white patches on the oral mucosa. What is the likely fungus to cause this condition? Discuss the pathogenicity of this fungus and steps to diagnose this condition in the laboratory. **(05)**

b) A 55 year old man presents with fever accompanied by chills and rigors since last 1 week. The fever appears every third day. He has no other complications. What is the likely diagnosis? Discuss the laboratory diagnosis of this condition. **(05)**

Q.2 **a)** Describe Type-IV hypersensitivity reaction. **(05)**

b) Describe the structure of immunoglobulins and write the important properties of IgM. **(05)**

Q.3 **a)** Discuss Dermatophytosis. **(05)**

b) Describe the cultivation of viruses. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**

a) Trichomonas vaginalis

b) HBsAg

c) Dengue

d) Laboratory diagnosis of Filariasis

e) Stool concentration methods

f) Polio vaccine.

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SARASWATI-II : JANUARY 2010
SUBJECT : MICROBIOLOGY PAPER-II

Day : Thursday
Date : 07/01/2010

Time : 2.00 pm To 4.00 pm
Max. Marks : 40.

N.B.:
1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat labeled diagrams **WHEREVER** necessary.

Q.1 a) A 30 year old female coming from Bihar given history of oedema and pigmentation of skin since last 4 months. On examination there is massive splenomegaly and her hair appear brittle. Discuss the laboratory diagnosis of this condition. **(05)**

b) A boy aged 7 years was brought to the paediatric OPD. He has complaints anal itch. The mother gave the history of finding fine thread like whitish things in his bed. What is the probable worm infestation? What are the likely complications of this infestation? Give an account of laboratory diagnosis of this condition. **(05)**

Q.2 a) Describe the various factors affecting antibody production. **(05)**

b) Ig E mediated hypersensitivity reaction. **(05)**

Q.3 a) Enumerate various clinical condition caused by Aspergillus. Give an account of laboratory diagnosis of pulmonary aspergillosis. **(05)**

b) Describe the laboratory diagnosis of Hepatitis B infection. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**

a) Cell cultures

b) Larval stage of Taenia solium

c) Monoclonal antibody

d) Germ tube test

e) Inclusion bodies

f) Rhinosporidosis.

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SARASWATI - II : JULY 2009
SUBJECT : MICROBIOLOGY PAPER – I

Day : Monday
Date : 6/7/2009

Time : 2:00 P.M. to 4:00 P.M.
Max. Marks : 40

N.B.

1) All questions are **COMPULSORY.**
2) Figures to the right indicate **FULL** marks.
3) Draw neat diagrams **WHEREVER** necessary.

Q.1 **a)** A 45 Year old male patient comes with a history of cough with expectoration, haemoptysis and evening rise of temperature. What is the probable diagnosis. Write in detail about the laboratory diagnosis of this condition. Also mention prophylaxis of this condition. **(05)**

b) A 4 Year old male child was brought to the hospital with a dirty greyish white patch in the right faucial region. On examination the child was febrile and showed signs of toxaemia. What is the likely diagnosis. Describe the laboratory diagnosis of this condition. **(05)**

Q.2 **a)** Give **TWO** examples of : **(05)**

i) Bacteria causing venereal disease
ii) Urease positive organisms
iii) Capsulated organisms
iv) Gaseous disinfectants
v) Pigment producing bacteria

b) Define the following: **(05)**

i) Exaltation and Attenuation
ii) Septicaemia
c) Mutation
d) Cross infection
e) Healthy carrier

Q.3 **a)** Discuss the growth requirements of bacteria. Also describe the bacterial growth curve. **(05)**

b) Describe the morphology of bacterial cell in detail. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**

a) Koch's postulates
b) Bacterial cell wall
c) Weil's disease
d) Halophilic vibrios
e) Lepromin test
f) Bacterial toxins

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SARASWATI – II : JULY 2009
SUBJECT : MICROBIOLOGY PAPER – II

Day : Tuesday
Date : 07/07/2009

Time : 2:00 P.M. to 4:00 P.M.
Max. Marks : 40

N.B.

1) All questions are **COMPULSORY.**
2) Figures to the right indicate **FULL** marks.
3) Draw neat and labelled diagrams **WHEREVER** necessary.

Q.1 **a)** A 25 Year old patient comes with complaints of loose motions with abdominal pain. Fecal sample contains blood and mucous. What is the likely diagnosis? Describe the laboratory diagnosis of this condition. **(05)**

b) A 15 Year old patient comes with history of intermittent fever recurring every third day with chills and rigors. On examination there is spleenomegaly and the patient is anaemic. Discuss the laboratory diagnosis of this condition. **(05)**

Q.2 **a)** Define and classify hypersensitivity reactions. Describe briefly Serum sickness. **(05)**

b) Discuss the mechanisms of Autoimmunity. **(05)**

Q.3 **a)** Discuss Dermatophytosis. **(05)**

b) Describe vaccines and immunisation against Rabies. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**

a) Mycetoma

b) Dengue fever

c) T dependant and T independent Antigens

d) Giardia lamblia

e) Morphological classification of fungi

f) Interferons

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SARASWATI-II : JANUARY 2009
SUBJECT : MICROBIOLOGY PAPER-I

Day : Monday — Time : 2.00 P.M. TO 4.00 P.M.
Date : 05/01/2009 — Max. Marks : 40.

N.B.:
1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat labeled diagrams **WHEREVER** necessary.

Q.1 a) A 25 year old male patient comes with maculopapular rashes all over the body since 2 weeks. He gives history of contact 1 year back. What is the likely diagnosis? Discuss the laboratory diagnosis of this condition. **(05)**

b) A pregnant woman comes with complaints of fever with chills and burning micturition. What are the likely organisms causing this condition? Discuss the methods of laboratory diagnosis of this condition. **(05)**

Q.2 a) Give **TWO** examples of : **(05)**
i) Capsulated organisms.
ii) Media sterilised by inspissation.
iii) Transport media.
iv) Zoonotic infections.
v) Exotoxin producing organisms.

b) Define the following : **(05)**
i) Transformation.
ii) Paradoxical carrier.
iii) Toxioid.
iv) Septicaemia.
v) Iatrogenic infection.

Q.3 a) Describe the virulence factors of bacteria. **(05)**

b) Define sterilization. Discuss methods of dry heat sterilization. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**
a) Louis Pasteur.
b) Bacterial cell wall.
c) Group B Streptococci.
d) Lepra reactions.
e) Toxigenicity testing of Corynebacterium diphtheriae.
f) TRIC agent.

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SARASWATI-II : JANUARY 2009
SUBJECT : MICROBIOLOGY PAPER-II

31 LIBRARY

Day : Tuesday
Date : 06/01/2009

Time : 2.00 P.M. TO 4.00 P.M.
Max. Marks : 40.

N.B.:

1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat labeled diagrams **WHEREVER** necessary.

Q.1 a) A 50 year old male patient comes with massive swelling of the right lower limb. The swelling is typically hard, brawny and non-pitting. What is likely diagnosis? Discuss the life cycle of the parasite and describe the laboratory diagnosis of this condition. **(05)**

b) A 40 year old man complains of fever, headache, vomitting and neck rigidity since 3 days. The patient was immunocompromised and he was a pigeon breeder. What is the likely diagnosis? Mention the likely fungus to cause this condition. What are the other lesions caused by this fungus and describe its laboratory diagnosis? **(05)**

Q.2 a) Classify hypersensitivity reactions. Describe Type IV reaction in detail. **(05)**

b) Describe the structure of Immunoglobulins. Discuss the important properties of IgG. **(05)**

Q.3 a) Discuss the life cycle and pathogenicity of Plasmodium falciparum. Also describe the methods for laboratory diagnosis of malignant tertian malaria. **(05)**

b) Discuss the cultivation of viruses in detail. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**

a) Rhinosporidiosis.
b) Cysticercosis.
c) HBsAg.
d) Rabies vaccine.
e) Mycetoma.
f) Japanese encephalitis.

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BHARATI VIDYAPEETH'S MEDICAL COLLEGE KARAD LIBRARY 30

SARASWATI-II : JULY 2008
SUBJECT : MICROBIOLOGY PAPER-I

Day : Monday
Date : 07-07-2008

Time : 2:00 P.M. TO 4:00 P.M.
Max. Marks : 40.

N.B.:
1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat labeled diagrams **WHEREVER** necessary.

Q.1 a) Twenty students ate Pedhas during school celebrations and developed vomiting and loose motions. Give your differential diagnosis and methods of laboratory confirmation. **(05)**

b) A 25 year old pregnant woman presented with burning, frequency of urination and fever of 4 days. Give your diagnosis. Give plan of laboratory diagnosis. **(05)**

Q.2 a) Give **Two** examples of **(05)**
i) Contributions of Louis Pasteur.
ii) Non sporing anaerobes.
iii) Cary Blair medium.
iv) H_2S producing bacteria.
v) Transduction.

b) Define the following: **(05)**
i) Attenuation.
ii) Paradoxical carrier.
iii) Halophilic vibrio.
iv) Zoonosis.
v) Immunity through toxoids.

Q.3 a) Give a short account of inspiration inspissations. **(05)**

b) Pathogenic staphylococci. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**
a) Tubercular test.
b) Koch's postulates.
Capsule swelling reaction.
Nosocomial infection.
Biphasic media and uses.
Penicillin resistance.

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SARASWATI-II : JULY 2008
SUBJECT : MICROBIOLOGY PAPER-II

BHARATI VIDYAPEETH'S MEDICAL COLLEGE, PUNE LIBRARY 29

Day : Tuesday
Date : 08-07-2008

Time : 2:00 P.M. TO 4:00 P.M.
Max. Marks : 40.

N.B.:

1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat labeled diagrams **WHEREVER** necessary.

Q.1 a) A 10 year old boy has high fever with rigors since 5 days. Similar episodes were reported twice in last 3 months. Give your diagnosis and method of laboratory confirmation. **(05)**

b) A 35 year old female has fever, joint pain and generalized body ache since one month. All four other members in the family have already suffered similar episodes recently. Give your diagnosis and laboratory confirmation method. How this condition is prevented? **(05)**

Q.2 a) Describe clinical conditions caused by Candida albicans. **(05)**

b) Describe innate immunity, give examples. **(05)**

Q.3 a) Describe in detail stages of viral multiplication. **(05)**

b) Describe laboratory diagnosis in a case of suspected fungal disease. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**

a) Viral vaccines.

b) Ova in stools.

c) IgM.

d) Vector.

e) Toxoplasmosis.

f) Id reaction.

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SARASWATI – II : JANUARY – 2008
SUBJECT : MICROBIOLOGY PAPER – I

Day : Wednesday
Date : 09/01/2008

Time : 2.00 pm to 4.00 pm
Max. Marks : 40

N.B.
1) All questions are **COMPULSORY**.
2) Figures to the **RIGHT** indicate **FULL** marks.
3) Draw neat labeled diagrams **WHEREVER** necessary.

Q.1 a) A 3 year old female child presents with fever, headache and vomiting of 5 days duration. On clinical examination the child showed neck rigidity. Name the organisms, which can cause this condition and discuss laboratory diagnosis of this condition. **[05]**

b) A 20 year man comes with history of loss of weight, low grade fever with evening rise of temperature and cough with expectoration of one month duration. What is the likely diagnosis and discuss laboratory diagnosis of this condition? **[05]**

Q.2 a) Give **TWO** examples of **[05]**
i) Organisms producing exotoxins
ii) Pigment producing organisms
iii) Methods of gene transfer
iv) Chemical disinfectants
v) Urease positive organisms

b) **Define** the following. **[05]**
i) Septicaemia
ii) Antisepsis
iii) Mesophilic bacteria
iv) Paradoxical Carrier
v) Endemic infection

Q.3 a) Discuss the various virulence factors of bacteria. **[05]**

b) Discuss methods of moist heat sterilization in detail. **[05]**

Q.4 Write short notes on **ANY FIVE** of the following. **[10]**
a) Robert Koch
b) Toxic shock syndrome
c) Standard test for Syphilis
d) Naglers reaction
e) Halophilic vibiros
f) Toxigenicity testing of Corynebacterium diphtheriae

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BHARATI VIDYAPEETH'S DENTAL COLLEGE, PUNE LIBRARY

SARASWATI – II : JANUARY 2008
SUBJECT : MICROBIOLOGY PAPER – II

Day : Thursday — Time : 2.00 pm to 4.00 pm
Date : 10/01/2008 — Max. Marks : 40

N.B.

1) All questions are **COMPULSORY**.
2) Figures to the **RIGHT** indicate **FULL** marks.
3) Draw neat labeled diagrams **WHEREVER** necessary.

Q.1 **a)** A 25 year old female coming from Bihar gives history of Oedema and pigmentation of skin since last 6 months. Clinical examination shows massive spleenomegaly, anaemia and extremely brittle hair. What is the likely diagnosis? Describe the life cycle of this parasite and discuss the laboratory diagnosis of this condition. **[05]**

b) A 5 month old bottle fed infant is brought to the hospital with complaints of white patches on the oral mucosa. What is the likely fungus to cause this condition? Describe the pathogenecity of this fungus and laboratory methods for diagnosis of this condition. **[05]**

Q.2 **a)** Enumerate Antigen Antibody reaction. Discuss Precipitation reactions in detail. **[05]**

b) Describe the structure of immunoglobulins. Discuss the properties of IgM and IgA. **[05]**

Q.3 **a)** Discuss dermatophytes and describe its laboratory diagnosis. **[05]**

b) Discuss the various methods of cultivation of viruses in detail. **[05]**

Q.4 Write short notes on **ANY FIVE** of the following. **[10]**

a) HbsAg
b) Inclusion bodies
c) Rabies vaccine
d) Histoplasmosis
e) Graft Vs host reaction
f) Casonis test

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LIBRARY
MEDICAL COLLEGE, PUNE-40

SARASWATI-II (NEW RULES) : JULY 2007
SUBJECT : MICROBIOLOGY PAPER-I

Day : Wednesday
Date : 04/07/2007

Time : 2.00 PM TO 4.00 PM
Max. Marks : 40.

N.B.:
1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat labeled diagrams wherever necessary.

Q.1 a) A 25 year old male patient comes with a history of acute diarrhoea, vomiting, and dehydration. On examination the stool is of rice water type. What is your probable diagnosis and how will you diagnose it in the laboratory. **(05)**

b) A 35 year old female patient come with history of high grade fever with frequency and burning micturition. What is the likely diagnosis and describe the laboratory diagnosis of this condition. **(05)**

Q.2 a) Give 2 examples of : **(05)**
i) Bacteria causing food poisoning.
ii) Oxidase positive organisms.
iii) Halophilic vibrios
iv) Gram negative non motile bacteria
v) Bacterial filters

b) Define the following: **(05)**
i) Pyaemia
ii) Transformation
iii) Contact carrier
iv) Pathogenicity
v) Nosocomial infections.

Q.3 a) Describe the bacterial cell wall, capsule, flagella and spore. **(05)**

b) Discuss Leptospirosis. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**
a) Louis Pasteur
b) Bacterial growth curve
c) Lepra reactions
d) Satellitism
e) TRIC agents
f) Widal test.

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SARASWATI-II (NEW RULES) : JULY 2007
SUBJECT : MICROBIOLOGY PAPER-II

25
MEDICAL COLLEGE, PANAJI

Day : Thursday
Date : 05/07/2007

Time : 2.00 PM TO 4.00 PM
Max. Marks : 40.

N.B.:

1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat labeled diagrams wherever necessary.

Q.1 a) A 50 year old female coming from Bihar gives history of oedema and pigmentation of skin since last 4 month. On examination there is massive spleenomegaly and her hair appear brittle. What is the likely diagnosis and describe the laboratory diagnosis for this condition. **(05)**

b) A 14 year old boy comes with complaints of hydrophobia. He gave a history of dog bite one month before. What is the possible cause? Describe the laboratory diagnosis and prophylaxis of this clinical condition. **(05)**

Q.2 a) Describe the laboratory diagnosis of fungal infections. **(05)**

b) Agglutination reaction. **(05)**

Q.3 a) Discuss mechanisms of auto immunity. **(05)**

b) Discuss Cryptococcosis. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**

a) Stool concentration methods

b) Cysticercosis

c) Free living amoebae

d) Ig M

e) Rhinosporidiosis

f) Japanese encephalitis.

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SARASWATI [illegible]
SUBJECT : MICROBIOLOGY PAPER I

BHARATI VIDYAPEETH UNIVERSITY

Day : Friday
Date : 5-1-2007

Time : 2.00 P.M. To 4.30 P.M.
Max. Marks : 40

N.B.:
1) All questions are **COMPULSORY**.
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat diagram wherever necessary.

Q.1 a) A 15 year old boy comes with history of undiagnosed fever of 10 days duration. On examination, he has massive spleenomegaly and rose spots on his skin. What is the likely diagnosis and how will you diagnose it in the laboratory. (05)

b) A 45 year old male comes with history of a being involved in a road accident. On examination it is noted that he has a crush injury of his left leg. The part appears odematous, and there is a foul smelling thin watery discharge from the wound. What is the likely diagnosis and how will you diagnose it in the laboratory? (05)

Q.2 a) Give two examples of : (05)
i) Non sporing anaerobes.
ii) Indole positive bacteria.
iii) Enrichment media.
iv) Bacteria causing meningitis.
v) Capsulated bacteria.

b) Define the following: (05)
i) Secondary infection.
ii) Differential media.
iii) Thermophilic bacteria.
iv) Mutation.
v) Zoonosis.

Q.3 a) Describe antibiotic sensitivity testing. (05)

b) Describe serological diagnosis of syphilis.

Q.4 Write short notes (Any Five) (10)
a) Louis pasteur
b) Tyndalisation.
c) Bacterial toxins
d) Leprosy test
e) Mycoplasma pneumoniae
f) Widal test

SARASWATI-II : JANUARY - 2007
SUBJECT : MICROBIOLOGY PAPER-II

23
BHARATI VIDYAPEETH UNIVERSITY MEDICAL COLLEGE PUNE

Day : Monday
Date : 8-1-2007

Time : 2.00 P.M. TO 4.00 P.M.
Max. Marks : 40.

N.B.:
1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat diagram wherever necessary.

Q.1 a) A 35 year old patient comes with history of fever and frequent passing of loose stools with blood and mucous. What is the likely parasite to cause this condition and how will you diagnose this condition in the laboratory? **(05)**

b) A 20 year old male comes with a circular ring like lesion on the scalp. The edges of the lesion appear erythematous and scaly. What is the likely lesion and how will you diagnose it in the laboratory? **(05)**

Q.2 a) Describe agglutination reactions. **(05)**

b) Describe the structure of immunoglobulins and discuss properties of IgG. **(05)**

Q.3 a) Describe laboratory diagnosis of Filariasis. **(05)**

b) Describe the morphology and life cycle of Plasmodium falciparum. **(05)**

Q.4 Write short notes (Any **Five**) **(10)**
a) Tissue culture.
b) HBsAg
c) Mycotoxins.
d) Rabies vaccine.
e) Inclusion bodies.
f) Rhinosporidiosis.

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SARASWATI-II : JULY 2006
SUBJECT : MICROBIOLOGY PAPER-I

BHARATI VIDYAPEETH MEDICAL COLLEGE PUNE

Day : Friday
Date : 07/07/2006

Time : 2.00 P.M. TO 4.00 P.M.
Max. Marks : 40.

N.B.:
1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat diagram wherever necessary.

Q.1 a) A 21 year old female comes with history of fever, along with frequency of and burning micturition. What is the likely diagnosis and how will you diagnose it in the laboratory. **(05)**

b) A 3 year old child women with complaints of fever, pain in throat and cough for the last 5 days. The throat appears congested and a greyish white membrane is seen. Describe the laboratory procedure to identify the causative bacteria. **(05)**

Q.2 a) Give two examples of each. **(05)**
i) Non-chromogenic Atypical mycobacterium.
ii) Oxidase positive bacteria.
iii) Bacteria producing alpha (α) haemolysis on blood agar.
iv) Gram positive bacilli.
v) Flagellated organisms.

b) Define the following: **(05)**
i) Paradoxical carrier.
ii) Disinfection.
iii) Endemic infection.
iv) Pyaemia.
v) Nosocomial infection.

Q.3 a) Discuss virulence factors of bacteria. **(05)**

b) Describe laboratory diagnosis of Leptospirosis.

Q.4 Write short notes (Any **Five**) **(10)**
a) Kochs postulates.
b) Hot air oven.
c) Bacterial spore.
d) Blood culture.
e) Conjugation.
f) Satellitism.

BHARATI VIDYAPEETH MEDICAL COLLEGE PUNE 43 21

SARASWATI-II : JULY 2006
SUBJECT : MICROBIOLOGY PAPER-II

Day : Monday
Date : 10/07/2006

Time : 2.00 P.M. TO 4.00 P.M.
Max. Marks : 40.

N.B.:
1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat diagram wherever necessary.

Q.1 a) A 25 year old patient comes with history of fever, lymphadinopathy and hard non pitting oedema of the lower limbs. What is the likely parasite to cause this condition and how will you diagnose it in the laboratory. **(05)**

b) A 6 month old child comes with a red tongue with white patches all over the tongue. The mother of the child gives history of the child being bottle-fed. What is the likely diagnosis, what is the likely fungus to cause this condition and describe the laboratory procedure to confirm the diagnosis? **(05)**

Q.2 a) Precipitation reaction. **(05)**

b) Anaphylaxis. **(05)**

Q.3 a) Describe the morphology and life cycle of Leishmania donovani. **(05)**

b) Discuss laboratory diagnosis of Acute and chronic amoebiasis. **(05)**

Q.4 Write short notes (Any **Five**) **(10)**
- **a)** Laboratory diagnosis of HIV infection.
- **b)** Cultivation of viruses.
- **c)** MMR vaccine.
- **d)** Cryptococcosis.
- **e)** Aspergillosis.
- **f)** Graft versus host reaction.

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SARASWATI-II : JANUARY 2006
SUBJECT : MICROBIOLOGY PAPER-I

Day : Friday
Date : 06/01/2006

Time : 2.00 P.M. TO 4.00 P.M.
Max. Marks : 40.

N.B.:

1) All questions are **COMPULSORY.**
2) Draw diagrams **WHEREVER** necessary.
3) Figures to the **RIGHT** indicate full marks.

Q.1 **a)** A 32 year old male patient comes with a painless ulcer on external genitalia and gives history of exposure. What is the probable diagnosis and how will you diagnose it in the laboratory? **(05)**

b) A 25 year old female patient comes with history of burning and frequency of micturition and low grade fever. What is your probably diagnosis and how will you diagnose it in the laboratory. **(05)**

Q.2 **a)** Give two examples of each. **(05)**

i) Anaerobic gram-negative bacilli.
ii) Bacteria causing wound infection.
iii) Bacteria with flagella.
iv) Urease positive bacteria.
v) Bacteria growing on Lowenstein Jenson medium.

b) Define the following: **(05)**

i) Pathogenicity.
ii) Septicaemia.
iii) Chronic carrier.
iv) Plasmid.
v) Passive immunity.

Q.3 **a)** Describe the principle of autoclave and its uses in Microbiology. **(05)**

b) Describe laboratory diagnosis of Pulmonary tuberculosis. **(05)**

Q.4 Write short notes on : **(10)**

a) Bacterial zoonotic diseases.
b) Bacterial growth curve.
c) Louis Pasteur.
d) Naglers reaction.
e) Bacterial toxins.

SARASWATI-II : JANUARY 2006
SUBJECT : MICROBIOLOGY PAPER-II

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Day : Monday
Date : 09/01/2006

Time : 2.00 P.M. TO 4.00 P.M.
Max. Marks : 40.

N.B.

1) All questions are **COMPULSORY.**
2) Draw diagrams **WHEREVER** necessary.
3) Figures to the **RIGHT** indicate full marks.

Q.1 **a)** A 20 year old student comes with history of loose stools with blood and mucous from last five days .He also gives history of abdominal pain and mild fever. What is likely parasite causing this condition and how will you diagnose it in the laboratory? **(05)**

b) A 6 month old bottle fed infant in brought to the hospital with a history of mild fever. On examination there is a curdy white patch on the tonsils and tongue. What is likely fungus causing this condition and how will you diagnose it in the laboratory? **(05)**

Q.2 **a)** Describe the morphology, life cycle and pathogenicity of Giardia lamblia. **(05)**

b) Describe Agglutination reactions in detail. **(05)**

Q.3 **a)** Cultivation of viruses. **(05)**

b) Morphology and life cycle of Taenia saginata. **(05)**

Q.4 Write short notes on : **(10)**

a) Type IV hypersensitivity reactions.
b) Mucormycosis.
c) IgM.
d) Polio vaccine.
e) Interferon.

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SARASWATI-II : JULY 2005
SUBJECT : MICROBIOLOGY PAPER-I

LIBRARY

Day : Friday
Date : 08/07/2005

Time : 2.00 pm To 4.00 pm
Max. Marks : 40.

N.B.:
1) All questions are **COMPULSORY.**
2) Draw neat diagrams **WHEREVER** necessary.
3) Figures to the **RIGHT** indicate full marks.

Q.1 **a)** A 5 year old male child comes with history of fever. On examination the child appears toxic and there is a dirty greyish white patch in the left faucial region. What is the probable diagnosis and how will you diagnose it in the laboratory? **(05)**

b) A 30 year of female patient comes with history of low grade fever with an evening rise in temperature. She also complains of cough with occasional haemoptysis. What is the likely diagnosis and how will you diagnose it in the laboratory. **(05)**

Q.2 **a)** Give **Two** examples each of : **(05)**
i) Lactose fermenting organisms.
ii) Capsulated organisms.
iii) Spore forming organisms.
iv) Organisms causing diarrhoea.
v) Motile gram-negative bacilli.

b) Define the following : **(05)**
i) Sterilization.
ii) Attenuation.
iii) Septicaemia.
iv) Chronic carrier.
v) Endotoxin.

Q.3 **a)** Describe the morphology of bacterial cell. **(05)**

b) Describe the laboratory diagnosis of Syphilis. **(05)**

Q.4 Write short notes : **(10)**
a) Bacterial growth curve.
b) Coagulase test.
c) Louis Pasteur.
d) Antibiotic sensitivity testing.
e) Autoclave.

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SARASWATI-II : JULY 2005
SUBJECT : MICROBIOLOGY PAPER-II

LIBRARY 17

Day : Monday
Date : 11/07/2005

Time : 2.00 pm To 4.00 pm
Max. Marks : 40

N.B.:

1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat diagram **WHEREVER** necessary.

Q.1 a) A 15 year old student comes with history of fever which typically comes on every 48 hrs. The fever is accompanied by chills and rigors. What is the probable diagnosis and how will you diagnose it in the laboratory? **(05)**

b) A 30 year old male patient comes with multiple round, circumscribed erythymatous itchy patches on the thighs. What is a likely diagnosis and how will you diagnose it in the laboratory. **(05)**

Q.2 a) Type-I hypersensitivity reaction. **(05)**

b) Agglutination reactions. **(05)**

Q.3 a) Describe the morphology and life cycle of Ascaris lumbricoides. **(05)**

b) Laboratory diagnosis of filiariasis. **(05)**

Q.4 Write short notes on : **(10)**

a) Tissue Culture.
b) Interferon.
c) Histoplasma Capsulatum.
d) Candidosis.
e) Rabies vaccine.

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LIBRARY

SARASWATI - II : JULY - 2004
SUBJECT : MICROBIOLOGY PAPER - I

Day : Monday
Date : 05/07/2004

Time : 2.00 P.M. TO 4.00 P.M.
Max. Marks : 40

N.B. -
1) All questions are **compulsory**
2) Figures to the **right** indicate full marks.
3) Draw neat diagrams **wherever** necessary.

Q.1 a) A 25 years old female was admitted with complaints of fever with chills and rigors, frequency of micturition and burning micturition for 5 days. Describe the likely diagnosis and the laboratory procedure to identify the causative bacteria. **(05)**

b) A 5 years old boy was admitted with history of fever, headache and drowsiness. On examination he had neck rigidity. What is the likely diagnosis? Describe the laboratory procedure to confirm the diagnosis. **(05)**

Q.2 a) Give 2 examples of each of the following- **(05)**
1) Non-lactose fermenting gram negative bacilli
2) Selective media
3) Organisms causing sore throat
4) Chemical disinfectants
5) Methods of anaerobiasis

b) Define the following - **(05)**
1) Commensal organism
2) Carrier
3) Opportunistic infection
4) Epidemic
5) Sterilisation

Q.3 a) Moist heat sterilisation. **(05)**

b) Laboratory diagnosis of pulmonary tuberculosis **(05)**

Q.4 Write short notes on - **(10)**
1) Coagulase test
2) Bacterial capsule
3) Bacterial toxins
4) Pathogenicity of Pseudomonas aeruginosa
5) Widal test

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SARASWATI-II : JULY 2004
SUBJECT : MICROBIOLOGY PAPER-II

15

Day : Tuesday
Date : 06/07/2004

Time : 2.00 P.M. TO 4.00 P.M.
Max. Marks : 40.

N.B.:

1) All questions are **COMPULSORY.**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat diagram wherever necessary.

Q. 1 **a)** A young adult male comes with complaints of 5-6 loose motions accompanied with blood and mucous every day since 3-4 days. There is no fever or tenesmus. What is likely parasite causing this infection? Describe the laboratory diagnosis of this condition. **(05)**

b) A young female comes with complaints of white discharge and itching at the enteroitus. The per speculum examination, shows thick yellowish white, foul smelling, curdy discharge and redness of vagina. What is the possible diagnosis? How will you proceed to confirm the diagnosis? **(05)**

Q.2 **a)** Anaphylaxis **(05)**

b) Precipitation reactions **(05)**

Q.3 **a)** Describe the laboratory diagnosis of Benign tertian malaria. **(05)**

b) Describe the life cycle of Ancylostoma duodenale. **(05)**

Q.5 Write short notes : **(10)**

a) Cultivation of viruses.
b) Rabies vaccine.
c) IgG antibody.
d) Histoplasma Capsulatum.
e) HBs Ag.

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SARASWATI – II : JANUARY : 2004
SUBJECT : MICROBIOLOGY – I

Day : Wednesday Time : 2.00 p.m. to 4.00 p.m.
Date : 07/01/2004 Max. Marks : 40

N.B.
1) All questions are **COMPULSORY**.
2) Figures to the **RIGHT** indicate **FULL** marks.
3) Draw neat diagrams **WHEREVER** necessary.

Q.1 a) A 23 years old male patient is admitted to the hospital with profuse watery diarrhoea and vomitings. He is dehydrated. he has painless and effortless purging. The stool sample sent to the laboratory has typical "rice water" appearance. Describe the laboratory procedure to identify the causative bacterium. **[05]**

b) A 28 years old male patient is admitted to the hospital after a road side accident. He has crush injury of the left thigh with pain, tendreness and oedema of the thigh with signs of toxaemia. Examination reveals crepitus and thin watery discharge from the wound. What is the probable diagnosis ? Describe the laboratory procedure to confirm your diagnosis. **[05]**

Q.2 a) Mention the type of medium and the method of sterilization.
i) Nutrient agar
ii) Alkaline peptone water
iii) Mac Conkeys medium
iv) Lowenstein Jensen medium
v) Chocolate agar **[05]**

b) Describe the differences between exotoxin and endotoxin. **[05]**

Q.3 a) Briefly describe the serological diagnosis of enteric fever. **[05]**

b) Briefly describe the laboratory diagnosis of leprosy. **[05]**

Q.4 Write short notes on : **[10]**
a) Bacterial capsule
b) Zeihl Neelson's staining
c) VDRL Test
d) Methicillin resistant Staphylococcus Aureus
e) Weil Felix test

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B. V. D. U. Medical College Pune 13

SARASWATI – II – JANUARY : 2004
SUBJECT – MICROBIOLOGY – II

Day : Thursday — Time : 2:00 p.m. to 4:00 p.m.
Date : 08/01/2004 — Max. Marks : 40

N.B.

1) All questions are **COMPULSORY**.
2) Figures to the **RIGHT** indicate **FULL** marks.
3) Draw neat diagrams **WHEREVER** necessary.

Q.1 a) A 35 years old patient is admitted to the hospital with meningitis. He has tested positive for HIV. His CSF revealed a large number of yeast cells. Which is the fungus likely to be responsible? Describe the laboratory diagnosis to confirm your diagnosis. **[05]**

b) A 22 years old boy has reported to the hospital with signs and symptoms of pain and a lump in the right hypochondrium. Patient gives history of having a pet dog at home. What is the probable diagnosis? How will you proceed for the laboratory diagnosis? **[05]**

Q.2 Write short notes on :-

a) Agglutination reaction **[05]**
b) Tissue culture for viruses **[05]**

Q.3 a) Describe the laboratory diagnosis of filariasis. **[05]**
b) Describe the life cycle of Taenia Saginata. **[05]**

Q.4 Write short notes on :- **[10]**

a) Aspergillosis
b) Screening tests for HIV infection
c) Prophylaxis for hepatitis B infection
d) E. histolytica
e) Negri bodies

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SARASWATI-II (NEW RULES) : JANUARY 2003
SUBJECT : MICROBIOLOGY PAPER-I

Day : Friday
Date : 10-1-2003

Time : 11.00 A.M. TO 1.00 P.M.
Max. Marks : 40.

N.B.

1) All questions are **COMPULSORY**.
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat diagrams **WHEREVER** necessary.

Q. 1 A) A 27 years old male patient is admitted in the hospital with a history of passing blood and mucus in the faeces since 3 days. He also complains of tenesmus and fever. His abdomen is soft and tender. Describe the laboratory procedure to identify the causative bacteria. **(05)**

B) A five years old boy is brought to the hospital with history of fever, headache and vomiting since three days. His clinical examination revealed neck rigidity and a positive Kernig's sign. What is the probable clinical diagnosis? Describe the laboratory procedure to arrive at the diagnosis. **(05)**

Q. 2 A) Mention the type of medium and method of sterilization of the following culture media. **(05)**

a) Blood agar.
b) Peptone water sugar medium.
c) Lowenstein Jensen medium.
d) Selenite F medium.
e) Mac Conkey's medium.

B) Write briefly about Antibiotic susceptibility testing and its importance in patient care. **(05)**

Q. 3 A) Laboratory diagnosis of Gonorrhoea. **(05)**

B) Laboratory diagnosis of Diphtheria. **(05)**

Q. 4 Write short notes on - **(10)**

a) IMVIC reaction.
b) Significant bacteriuria.
c) Escherichia coli causing diarrhoea.
d) Interpretation of Widal test.
e) Hanging drop preparation.

SARASWATI –II (NEW RULES) : JANUARY 2003
SUBJECT : MICROBIOLOGY – II

Day: Saturday
Date: 11-1-2023

Time: 11.00 a.m. to 1.00 p.m.
Max. Marks: 40

N.B.

1) All questions are ***compulsory***.
2) Figures to the right indicate ***full*** marks.
3) Draw neat diagrams wherever necessary.

Q.1 **A)** A 24 year old man complains of 'high fever with chills, rigors and sweating on alternate days' of 6 days duration. Describe the laboratory diagnosis of this condition. **(5)**

B) A 50 year old diabetic patient with history of pulmonary tuberculosis is admitted in the hospital. X-ray chest shows a round and opaque shadow suggestive of 'Fungus Ball'. What is the fungus responsible? Describe the laboratory diagnosis. **(5)**

Q.2 Write short notes on : - **(10)**

a) IgG
b) T lymphocyte

Q.3 **A)** Describe the life cycle of Ancylostoma duodenale **(5)**

B) Describe the laboratory diagnosis of hydatid disease. **(5)**

Q.4 Write short notes on : - **(10)**

a) Histoplasma capsulatum
b) Inclusion bodies
c) IgM
d) Herpers simplex
e) Serum sickness

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SARASWATI –II (NEW RULES) : JANUARY 2002
SUBJECT : MICROBIOLOGY – I

B. V. D. U. Medical College LIBRARY Pune

Day: Wednesday
Date: 09/01/2002

Time: 11.00 a.m. to 1.00 p.m.
Max. Marks: 40

N.B.

1) All questions are ***compulsory***.
2) Figures to the right indicate ***full*** marks.
3) Draw neat diagrams wherever necessary.

Q.1 **A)** A 45 year old man, with a history of road side accident 2 days ago, is admitted in the hospital with a large lacerated wound on his left foot. There is foul smelling discharge, oedema and crepitus. What is the likely diagnosis? Describe the laboratory procedure to confirm the diagnosis. **(5)**

B) A 27 year old man with polygamous sexual relationship reports with thick and purulent urethral discharge. What is your probable diagnosis? Describe the laboratory procedure to confirm. **(5)**

Q.2 **A)** Give two examples of each of the following : - **(5)**

a) Bacteriophages
b) Atypical mycobacteria
c) Gene transfer methods
d) Obligate intracellular parasites
e) Staining methods for capsulated bacteria.

B) Define the following : - **(5)**

a) Sterilization
b) Enriched medium
c) Septicaemia
d) Nosocomial infections
e) Zoonosis

Q.3 **A)** Describe the laboratory diagnosis of cholera. **(5)**

B) Describe the laboratory diagnosis of Brucellosis. **(5)**

Q.4 Write short notes on : - **(10)**

a) Significant titre in Widal test
b) E. Coli producing diarrhoea
c) Vincents angina
d) Vector
e) Chlamydia trachomatis

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B. V. D. U. Medical College LIBRARY Pune

SARASWATI –II (NEW RULES) : JANUARY 2002
SUBJECT : MICROBIOLOGY – II

Day: Thursday
Date: 10/01/2002

Time: 11.00 a.m. to 1.00 p.m.
Max. Marks: 40

N.B.

1) All questions are ***compulsory***.
2) Figures to the right indicate ***full*** marks.
3) Draw neat diagrams wherever necessary.

Q.1 **A)** A 4 month old bottle fed baby is admitted in the hospital with fever and refusal of feed. Oral mucosa is congested with multiple and white patches. What is the probable fungus responsible? Describe the laboratory procedure to confirm. **(5)**

B) A 23 year old man with history of multiple blood transfusions reports to the OPD with jaundice. What is the likely virus responsible for this? Describe the laboratory procedure to diagnose this condition. **(5)**

Q.2 Write short notes on - **(10)**

a) Complement
b) B lymphocyte

Q.3 **A)** Describe the life cycle of Giardia lamblia. **(5)**

B) Describe the laboratory diagnosis of MT malaria. **(5)**

Q.4 Write short notes on : - **(10)**

a) Rhinosporidiosis
b) HDCV Rabies vaccine
c) Elisa test
d) Aspergillus niger
e) Tissue culture

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SARASWATI-II (NEW RULES) : JANUARY 2001
SUBJECT : MICROBIOLOGY PAPER-I

Day : Wednesday — Time : 11.00 A.M. TO 1.00 P.M.
Date : 10/01/2001 — Max. Marks : 40.

N.B.

1) All questions are **COMPULSORY**.
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat diagrams **WHEREVER** necessary.

Q. 1 A) Four members of a family were admitted in the hospital with fever, vomiting and loose motions of 6 hours duration after eating food from a road side restaurant. What is the likely diagnosis? Describe the laboratory procedure to confirm your diagnosis. **(05)**

B) 40 years old lady is admitted in the hospital with fever, pain lower abdomen, frequency and burning micturition of 12 hours duration. Describe the laboratory procedure to diagnose this condition. **(05)**

Q. 2 A) Laboratory diagnosis of pneumococcal pneumonia. **(05)**

B) Laboratory diagnosis of Brucellosis. **(05)**

Q. 3 A) Give answer in brief. **(05)**

i) Disinfection.
ii) Functions of bacterial cell wall.
iii) Enumerate diseases caused by Klebsiella aerogenes.
iv) Enumerate bacteria causing meningitis.
v) Enumerate bacteria causing sore throat.

B) Give answers in brief - **(05)**

i) Bacterial plasmid.
ii) Antibiotic sensitivity testing.
iii) Bacterial spore.
iv) Nosocomial infections.
v) Widal test.

Q. 4 Write short notes on - **(10)**

a) Principle of Gram staining.
b) Atypical mycobacteria.
c) Selective medium.
d) Blood culture.
e) Motility of spirochaetes.

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SARASWATI-II (NEW RULES) : JANUARY 2001
SUBJECT : MICROBIOLOGY PAPER-II

B. V. D. U. Medical College Pune 7

Day : Thursday
Date : 11/01/2001

Time : 11.00 A.M. TO 1.00 P.M.
Max. Marks : 40.

N.B.

1) All questions are **COMPULSORY**.
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat diagrams **WHEREVER** necessary.

Q. 1 A) Write about the laboratory diagnosis of Hookworm infections. **(05)**

B) Write about the laboratory diagnosis of Tapeworm infections. **(05)**

Q. 2 A) Write in brief about anaphylaxis. **(05)**

B) Write in brief about T and B lymphocytes. **(05)**

Q. 3 A) Enumerate fungi causing infections in immunocompromised host. Describe briefly Cryptocous neoformans and diseases caused by it. **(05)**

B) Describe the laboratory diagnosis of Rabies. **(05)**

Q. 4 Write short notes on - **(10)**

a) Interferon.
b) Differences between active and passive immunity.
c) Epstein-Barr virus.
d) Egg inoculation for viruses.
e) Laboratory diagnosis of HIV infection.

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SARASWATI - II (OLD) - APRIL/MAY - 2001
SUBJECT : MICROBIOLOGY

B. V. D. U. Medical College Pune

Day : Wednesday
Date : 18/04/2001

Time : 10.00 a.m. To 1.00 p.m.
Max. Marks : 100

N.B.

1) All questions are **COMPULSORY**.
2) Answers to the two sections must be written in **SEPARATE** answer books.
3) Draw neat diagrams wherever necessary.
4) Figures to the **RIGHT** indicate **FULL** marks.

SECTION - I

Q.1 Describe bacterial growth curve. Describe effects of various environmental factors on bacterial growth. **(15)**

Q.2 Write short notes on any **TWO** , **(10)**
a) Bacterial Capsule
b) Hot air oven
c) Hospital infections

Q.3 Enumerate bacteria causing food poisoning. Describe laboratory diagnosis of food poisoning. **(15)**

Q.4 Write short notes on any **TWO** , **(10)**
a) Laboratory diagnosis of Tuberculous Meningitis
b) Pseudomonas aeruginosa
c) Nonsuppurative lesions of Streptococcus Pyogenes

SECTION - II

Q.5 Enumerate fungi causing superficial mycoses. Describe the laboratory diagnosis of dermatophytosis. **(15)**

Q.6 Write short notes on any **TWO** . **(10)**
a) Vectors in parasitic diseases
b) Toxoplasma gondii
c) Pathogenicity and laboratory diagnosis of Hookworm infections

Q.7 Describe morphology of Hepatitis B virus. Describe the laboratory diagnosis of Hepatitis B. Describe prophylactic measures against Hepatitis B infection. **(15)**

Q.8 Write short notes on any **TWO** , **(10)**
a) Anaphylaxis
b) ELISA
c) B Lymphocytes

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SARASWATI-II (NEW RULES) : JULY 2001
SUBJECT : MICROBIOLOGY PAPER-I

M. D. U. Medical Cell
5

Day : Wednesday
Date : 04/07/2001

Time : 11.00 A.M. TO 1.00 P.M.
Max. Marks : 40.

N.B.

1) All questions are **COMPULSORY**.
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat diagrams **WHEREVER** necessary.

Q. 1 A) A 25 years old female patient is admitted in the hospital with 20% burns. She has fever and bluish coloured pus discharge from the burn wounds. What is your probable diagnosis? Describe the laboratory procedure of confirming the diagnosis. **(05)**

B) A 30 years old male patient with history of polygamous relationship reports to the hospital with a single, painless, non-tender ulcer on the penis with clear discharge. What is the likely diagnosis? Describe the laboratory diagnosis of this condition. **(05)**

Q. 2 A) Give two examples of each of the following: **(05)**

a) Capsulated bacteria.
b) Flagellated bacteria.
c) Fimbriated bacteria.
d) Spore bearing bacteria.
e) Plasmid bearing bacteria.

B) Mention with reasons, the most suitable method of sterilization of the following media. **(05)**

a) Blood agar.
b) L-J medium.
c) RCM medium.
d) Peptone water sugar medium.
e) Nutrient agar.

Q. 3 a) Laboratory diagnosis of pulmonary tuberculosis. **(05)**

b) Laboratory diagnosis of acute sore-throat. **(05)**

Q. 4 Write short notes on - **(10)**

a) Hot air oven.
b) Satellitism.
c) Nagler reaction.

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BRAMHAPUTRA - AUGUST - 2001
SUBJECT : MICROBIOLOGY

Day : Wednesday — Time : 10.00 a.m. to 1.00 p.m.
Date : 08/08/2001 — Marks : 100

N.B.

1) All questions are **COMPULSORY.**
2) Draw neat diagrams **WHEREVER** necessary.
3) Figures to the **RIGHT** indicate maximum marks.

Q.1 Describe in detail the growth requirements of bacteria . Also briefly discuss the bacterial growth curve. **(15)**

Q.2 Describe the laboratory diagnosis of Bacillary dysentry. **(15)**

Q.3 Describe the laboratory diagnosis of Enteric fever. **(15)**

Q.4 Describe the different antigen antibody reactions. **(15)**

Q.5 Write short notes (any **four**) **(20)**

a) Bacterial spore
b) Inspissation
c) Anaerobic culture methods
d) Plasmodium falciparum
e) IMViC reactions.

Q.6 Write short notes (any **four**) **(20)**

a) Care of microscope
b) Hepatitis B virus
c) Immunoglobulins
d) Viral cultivation
e) Naeglers reaction

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SARASWATI-II (NEW RULES): JULY - 2000
SUBJECT: MICROBIOLOGY PAPER-I
(GENERAL MICROBIOLOGY AND SYSTEMIC BACTERIOLOGY)

Day : Wednesday — Time: 11.00 A.M. TO 1.00 P.M.
Date : 5/07/2000 — Max. Marks: 40

N.B.

1) All questions are **COMPULSORY**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat diagrams **WHEREVER** necessary.

Q. 1 A) A 45 years old man had crush injury to his left leg in a road side accident, 3 days ago. On admission he was febrile and toxic. The wound on left leg was lacerated and had black, foul smelling discharge. There was edema on left foot and leg up to the knee joint level. Crepitus could be elicited. What is the probable clinical diagnosis ? Describe the procedure of laboratory diagnosis in this patient. **(05)**

B) A 15 year old girl was brought to the hospital with history of watery diarrhoea since one day and vomiting. On examination she was found to be afebrile; had thready, rapid pulse. She showed signs of moderate dehydration. Her faeces on gross examination had rice-water appearance. What is the probable clinical diagnosis ? Describe the procedure of laboratory diagnosis of this case. **(05)**

Q. 2 A) Give Two examples of each of the following: **(05)**

a) Lactose fermenting bacteria
b) Lactose non-fermeuting bacteria.
c) Urease positive bacteria.
d) Oxidase positive bacteria.
e) Catalase positive bacteria.

B) Mention the optimum temperature and time required for the following Procedures - **(05)**

a) Autoclaving
b) Sterilization of glassware in Hot-air-oven
c) Inspissation
d) Tyndallisation.
e) Pasteurization of milk.

Q. 3 A) Laboratory diagnosis of Enteric fever. **(05)**

B) Laboratory diagnosis of Leptospirosis. **(05)**

Q. 4 Write short notes on any **FIVE.** **(10)**

a) Nongonococcal urethritis.
b) Bacterial Zoonoses
c) Differences between exotoxins and endotoxins.
d) Coagulase test.
e) Significant bacteriuria.
f) Functions of cell wall.

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BHARATI VIDYAPEETH'S MEDICAL COLLEGE LIBRARY

SARASWATI-II (NEW RULES): JANUARY 2000
SUBJECT: MICROBIOLOGY PAPER-I
(GENERAL MICROBIOLOGY AND SYSTEMIC BACTERIOLOGY)

Day : Wednesday — Time: 11.00 A.M. TO 1.00 P.M.
Date : 19/01/2000 — Max. Marks: 40

N.B.

1) All questions are **COMPULSORY**
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat diagrams **WHEREVER** necessary.

Q. 1 A) A man of 21 years came with complaints of perianal condylomata, non-itching rash on upper extremities and ulcers in the mouth. He gave a history of contact with a commercial sex worker three years ago. What is the probable clinical diagnosis ? How can the diagnosis be confirmed in the laboratory ? **(05)**

B) A five year old girl was brought to the clinic with fever and pain in throat for 2 days. On examination she was found to be febrile and toxic. She had a patch on left tonsil, 2 cm in diameter. Attempts to remove the patch led to appearance of small bleeding spots. What is the probable clinical diagnosis ? How can the bacteriological diagnosis be established ? **(05)**

Q. 2 A) Cell wall of Bacteria. **(05)**

B) Antibiotic resistance in Bacteria. **(05)**

Q. 3 A) Write in brief laboratory diagnosis of urinary tract infection due to Escherichia coli. **(05)**

B) Give briefly laboratory diagnosis of pulmonary tuberculosis. **(05)**

Q. 4 Write briefly on any **FIVE** **(10)**

a) Contributions of Louis Pasteur to Microbiology
b) Nagler reaction
c) Antistreptolysin 'O' (ASO) test
d) Two examples of Capsulated Bacteria
Two examples of Capsular stains.
e) Two examples of Spore bearing Bacteria
Two examples of Spore Stains.
f) Two examples of fimbriate bacteria. Functions of fimbria and One method Of demonstration of fimbria.

SARASWATI-II (OLD COURSE) : OCT./NOV. 1999
SUBJECT: MICROBIOLOGY

BHARATI VIDYAPEETH'S COLLEGE PUNE-43

Day : Monday
Date : 18/10/1999

Time: 11.00 A.M. TO 2.00 P.M.
Max. Marks: 100.

N.B.

1) All questions are **COMPULSORY.**
2) Answers to the Two Sections must be written in **SEPARATE** answerbooks.
3) Draw neat diagrams **WHEREVER** necessary.
4) Black figures to the **RIGHT** indicate full marks.

SECTION-I

Q. 1 Define Sterilization. Enumerate different methods of sterilization. Describe construction and functioning of autoclave. **(15)**

Q. 2 Write short notes on any **TWO** of the following: **(10)**
a) Classification of bacteria.
b) Bacterial flagella.
c) Robert Koch.

3 Enumerate bacteria causing pyrexia of unknown origin (P.U.O.). Describe the pathogenesis and laboratory diagnosis of Typhoid fever. **(15)**

4 Write short notes on any **TWO** of the following: **(10)**
a) Treponemal tests for diagnosis of syphilis.
b) Corynebacterium diphtheriae.
c) Chlamydia trachomatis.

SECTION-II

Classify fungal infections. Describe the laboratory diagnosis of fungal infections in general. Add a note on Cryptococcosis. **(15)**

Write short notes on any **TWO** of the following: **(10)**
a) Life cycle of P. vivax in man.
b) Larva migrans.
c) Laboratory diagnosis of amoebiasis.

Describe the morphology of Rabies virus. Describe the pathogenesis and laboratory diagnosis of Rabies. Add a note on Prophylaxis. **(15)**

Write short notes on any **TWO** of the following: **(10)**
a) Immunoglobulin G.
b) T lymphocytes.
c) hepatitis B vaccines.

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SARASWATI - II: JANUARY - 2014
SUBJECT: MICROBIOLOGY PAPER -I

y: Monday
te: 06/01/2014

Time: 2.00 p.m. To 4.00 p.m.
Max Marks: 40

B.:

1) All questions are **COMPULSORY**.
2) Figures to the **RIGHT** indicate full marks.
3) Draw neat diagrams **WHEREVER** necessary.

.1 **a)** A 28 year old male patient comes to the OPD with a painless, indurated, circumscribed superficial ulcer on his external genitalia. He also gives history of contact with a commercial sex worker one month back. What is the likely diagnosis? Describe the laboratory diagnosis of this condition. **(05)**

b) A 29 year female patient comes with complaints of increased frequency and burning micturition since last two days. She also complains of lower abdominal pain and is febrile. What is the likely diagnosis? Describe the laboratory diagnosis of this condition. **(05)**

.2 **a)** Give two examples of: **(05)**

i) Organisms causing lower respiratory tract infections
ii) Transport media used for Vibrio Cholerae
ii) Non-Tuberculous Mycobacteria
iv) Capnophilic organisms
v) Anaerobic organisms

b) Define or explain briefly: **(05)**

i) Transformation
ii) Fastidious organisms
ii) Selective media
iv) Atypical infection
v) Bacteremia

Q.3 **a)** Describe the various types of culture media used in clinical microbiology laboratories. **(05)**

b) Describe the morphology of the bacterial cell. **(05)**

Q.4 Write short notes on any **FIVE** of the following: **(10)**

a) Louis Pasteur

b) Group B Streptococci

c) Laboratory diagnosis of Gonnorhoea

d) Shigellosis

e) Bacterial toxins

) Lepra reactions

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