[KD 540]

Sub. Code: 4061

SECOND M.B.B.S. DEGREE EXAMINATION.

(Non-Semester)

(Revised Regulations)

Paper I — GENERAL MICROBIOLOGY, IMMUNOLOGY, SYSTEMATIC MICROBIOLOGY

Time: Three hours

Maximum: 100 marks

Two and a half hours

Theory: 70 marks

for Theory and 30 minutes

MCQ: 30 marks

for MCQ.

MCQ must be answered separately on the answer sheet provided.

Answer ALL questions.

Draw suitable diagrams wherever necessary.

- 1. Define antibody. Describe antibody synthesis in human immune system. Enumerate the functions of different immunoglobulins. (15)
- 2. Write short notes on:

 $(4 \times 5 = 20)$

- (a) Plasmids
- (b) Anaerobic methods of cultivation
- (c) Bacterial filters
- (d) Bacterial flagella.

- 3. Enumerate organisms causing Diarrhoea.

 Describe the Pathogenicity, Laboratory diagnosis and
 Prophylaxis of Vibrio Cholerae. (15)
- 4. Write short notes on:

 $(4\times5=20)$

- (a) Atypical mycobacteria
- (b) Satellitisms
- (c) TRIC agents
- (d) Toxins and enzymes of strepto pyogenes.

[KE 540]

Sub. Code: 4061

SECOND M.B.B.S. DEGREE EXAMINATION.

(Non-Semester)

(Revised Regulations)

Paper I — GENERAL MICROBIOLOGY, IMMUNOLOGY, SYSTEMATIC MICROBIOLOGY

Time: Three hours

Maximum: 100 marks

Two and a half hours

Theory: 70 marks

for Theory and 30 minutes

MCQ: 30 marks

for MCQ

MCQ must be answered separately on the answer sheet provided.

Answer ALL questions.

Draw suitable diagrams wherever necessary.

- 1. What is hyper sensitivity? How do you classify various types of hypersensitivity reactions? Describe Type I Reaction. (15)
- 2. Write short notes on:

 $(4 \times 5 = 20)$

- (a) Transport media
- (b) Testing of disinfectants
- (c) Bacterial capsule
- (d) Autoimmunity.

- 3. Classify Mycobacteria. Describe the pathogenecity, laboratory diagnosis and prophylaxis of pulmonary tuberculosis. (15)
- 4. Write short notes on:

 $(4\times 5=20)$

- (a) Weil Felix Reaction
- (b) Helico bacter pylori
- (c) Malignant Pustule
- (d) General characters of family entero bacteriaceae.

[KG 540]

Sub. Code: 4061

SECOND M.B.B.S. DEGREE EXAMINATION.

(Non-Semester)

(Revised Regulations)

Paper I — GENERAL MICROBIOLOGY, IMMUNOLOGY, SYSTEMATIC MICROBIOLOGY

Time: Three hours

Maximum: 100 marks

Two and a half hours

Theory: 70 marks

for Theory and 30 minutes

MCQ: 30 marks

for MCQ

MCQ must be answered separately on the answer sheet provided.

Section A and B to be answered in the same answer book.

Answer ALL questions.

Draw suitable diagrams wherever necessary.

SECTION A

1. Enumerate the various Antigen-Antibody reactions and discuss in detail precipitation reactions with suitable examples. (15)

2. Write short notes on:

 $(4 \times 5 = 20)$

- (a) Gene transfer in bacteria.
- (b) Methods of transmission of infection.
- (c) Sterilisation by chemical agents.
- (d) Protocol for safe blood transfusion.

SECTION B

- 3. What is a biological Weapon? Enumerate the various micro organisms that can be used as bioweapons. Discuss the pathogenesis, laboratory diagnosis and prophylaxsis of Bacillus anthrax. (15)
- 4. Write short notes on:

 $(4\times 5=20)$

- (a) Non-suppurative complications of strepto-coccus pyogenes.
- (b) Prophylactic measures during an epidemic of cholera.
 - (c) Trench fever.
 - (d) Laboratory diagnosis in anaerobic infections.

[KJ 540]

Sub. Code: 4061

SECOND M.B.B.S. DEGREE EXAMINATION.

(Non-Semester)

(Revised Regulations)

Paper I — GENERAL MICROBIOLOGY, IMMUNOLOGY, SYSTEMATIC MICROBIOLOGY

Time: Three hours

Maximum: 100 marks

Theory: Two hours and forty minutes Theory: 80 marks

M.C.Q.: Twenty minutes

M.C.Q.: 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Write Essay:

 $(2 \times 15 = 30)$

- (1) Classify hypersensitivity reactions explaining the reasons. Give a full account of anaphylaxis.
- (2) Define pyrexia of unknown origin. Enumerate the organisms causing PUO. Describe the laboratory diagnosis of Typhoid Fever.

I. Write short notes on:

- (a) Mutations
- (b) Tyndalisation
- (c) Bacterial capsule
- (d) Bacterial growth curve
- (e) Immuno fluorescence tests
- (f) Neil Mooser reaction
- (g) Frei's test
- (h) Prophylaxis against tetanus
- (i) Toxins of streptococcus
- (j) Nosocomial infection.

[KL 540]

Sub. Code: 4061

SECOND M.B.B.S. DEGREE EXAMINATION.

(Non-Semester)

(Revised Regulations)

Paper I — GENERAL MICROBIOLOGY, IMMUNOLOGY, SYSTEMATIC MICROBIOLOGY

Time: Three hours

Maximum: 100 marks

Theory: Two hours and

Theory: 80 marks

forty minutes

M.C.Q.: Twenty minutes

M.C.Q.: 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Write Essay:

 $(2 \times 15 = 30)$

- (1) Enumerate different methods of Gene transfer. Describe the genetic mechanisms of drug resistance in bacteria.
- (2) Define Dysentery and enumerate its causative agents. Describe the laboratory diagnosis of Bacillary dysentery.

II. Write Short notes on:

- (a) Bacterial Flagella
- (b) Anaerobic culture methóds.
- (c) Polymerase chain reaction.
- (d) Mechanisms of autoimmunization.
- (e) T lymphocytes.
- (f) Type IV hypersensitivity reactions.
- (g) Staphylococcal virulence factors.
- (h) Laboratory diagnosis of enteric fever.
- (i) Mantoux test.
- (j) Malignant pustule.

[KM 540]

Sub. Code: 4061

SECOND M.B.B.S. DEGREE EXAMINATION.

(Non-Semester)

(Revised Regulations)

Paper I — GENERAL MICROBIOLOGY, IMMUNOLOGY, SYSTEMATIC BACTERIOLOGY

Time: Three hours

Maximum: 100 marks

Theory: Two hours and

Theory: 80 marks

forty minutes

M.C.Q. : Twenty minutes

M.C.Q.: 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Write Essay :

 $(2 \times 15 = 30)$

- Name different types of immunity and give a full account of Acquired Immunity.
- (2) Classify Mycobacteria. Describe the Laboratory diagnosis, treatment and prophylaxis of pulmonary tuberculosis.

II. Write short notes on :

- (a) Resistance transfer factor.
- (b) Dry heat sterilization.
- (c) Robert Koch.
- (d) Coombs test.
- (e) Immunoglobulin E.
- (f) Alternate complement pathway.
- (g) Laboratory diagnosis of Bacterial meningitis.
- (h) E coli diarrhea.
- (i) E1 Tor Vibrio.
- Lyme disease.

[KN 540]

Sub. Code: 4061

SECOND M.B.B.S. DEGREE EXAMINATION.

(Non-Semester)

(Revised Regulations)

Paper I — GENERAL MICROBIOLOGY, IMMUNOLOGY, SYSTEMATIC BACTERIOLOGY

Time: Three hours Maximum: 100 marks

Theory: Two hours and Theory: 80 marks

forty minutes

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

Answer ALL questions:

Draw suitable diagrams wherever necessary.

I. Write Essay :

 $(2 \times 15 = 30)$

 Mention the distinguishing characteristics of T and B cells and describe the development of T cells.

(10 + 5 = 15)

(2) Enumerate the bacteria causing sexually transmitted diseases. Describe the pathogenesis and laboratory diagnosis of syphilis. (2+3+10=15) II. Write Short Notes :

- (a) Conjugation.
- (b) Bacterial filters.
- (c) Annerobic methods of cultivation.
- (d) Filamentous appendages of bacteria.
- (e) Precipitation.
- (f) Weil Felix reaction.
- (g) Mantoux test.
- (h) Prophylaxis against Diphtheria.
- (i) Bacterial vaccines.
- (j) PUO.

[KO 540]

Sub. Code: 4061

SECOND M.B.B.S. DEGREE EXAMINATION.

Revised (Non-Semester) Regulations

Paper I — GENERAL MICROBIOLOGY, IMMUNOLOGY, SYSTEMATIC BACTERIOLOGY

Time: Three hours Maximum: 100 marks

Theory: Two hours and Theory: 80 marks

forty minutes

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

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Write Essay :

 $(2 \times 15 = 30)$

- Discuss the various methods of transfer of genetic material in bacteria with examples.
- (2) Discuss the etiology, pathogenesis, laboratory diagnosis, prophylaxis and treatment of Enteric fever.

II. Write short notes on :

- (a) Innate immunity
- (b) Type II hypersensitivity reactions
- (c) Secretory immuno globulins
- (d) Selective media
- (e) Elisa test
- (f) Non venereal treponematoses
- (g) Escherichia coli associated diarrhoea
- (h) Leptospirosis
- (i) TRIC agents
- (j) Laboratory diagnosis of pulmonary tuberculosis.

[KP 540]

Sub. Code: 4061

SECOND M.B.B.S. DEGREE EXAMINATION.

Revised (Non-Semester) Regulations

Paper I — GENERAL MICROBIOLOGY, IMMUNOLOGY, SYSTEMATIC BACTERIOLOGY

Time: Three hours

Maximum: 100 marks

Theory: Two hours and

Theory: 80 marks

forty minutes

M.C.Q.: Twenty minutes

M.C.Q.: 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay:

- (1) Mention the causes of meningitis. Discuss the pathogenesis, Lab diagnosis and the role of BACTEC in rapid diagnosis of causative agents in bacterial meningitis. (20)
- (2) Define and classify hyper sensitivity. Discuss the mechanism of anaphylaxis. (15)
- (3) Discuss the various methods of sterilization including Hepa filters. Discuss the protocol to sterilize the major surgical operation theatre. (15)

II. Short notes :

 $(6 \times 5 = 30)$

- (a) Enumerate the various Antigen Antibody reactions and their uses in diagnostic microbiology.
 - (b) Louis Pasteur contributions.
 - (c) Bacterial Drug Resistance.
 - (d) Rickettsiae.
 - (e) MHC restriction.
 - (f) Quellung Phenomena.

[KQ 540]

Sub. Code: 4061

SECOND M.B.B.S. DEGREE EXAMINATION.

Revised (Non-Semester) Regulations

Paper I — GENERAL MICROBIOLOGY, IMMUNOLOGY AND SYSTEMATIC BACTERIOLOGY

Time: Three hours Maximum: 100 marks

Theory: Two hours and Theory: 80 marks

forty minutes

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

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay:

- (1) Discuss the principle, procedure and applications of fluorescent microscopy. (20)
- (2) Classify Mycobacteria. Discuss the pathogenesis, Laboratory diagnosis and prophylaxis of pulmonary tuberculosis. (15)
- (3) Classify streptococci. Discuss the pathogenesis and Laboratory diagnosis of infective endocarditis. (15)

II. Write Short notes on :

 $(6 \times 5 = 30)$

- (a) Gaseous disinfectants.
- (b) Laboratory diagnosis of bacterial food poisoning.
 - (c) Antigen presenting cells.
 - (d) Methicillin resistant staphylococcus aureus.
 - (e) Non sporing anaerobes.
 - (f) Gardnerella vaginalis.

[KR 540]

Sub. Code: 4061

SECOND M.B.B.S. DEGREE EXAMINATION.

Revised (Non-Semester) Regulations

Paper I — GENERAL MICROBIOLOGY, IMMUNOLOGY AND SYSTEMATIC BACTERIOLOGY

Time: Three hours

Maximum: 100 marks

Theory: Two hours and

Theory: 80 marks

forty minutes

M.C.Q.: Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

- I. Essay
- Describe the methods of transmission of genetic material and genetic mechanism of drug resistance in bacteria. (20)
- Mention the clostridia of medical importance.
 Describe in detail the pathogenesis and Laboratory diagnosis of gas gangrene. (15)

3. Describe the morphology. Cultural characters, Pathogenesis and Laboratory diagnosis of Bacillus anthracis. (15)

II. Write short notes on :

 $(6 \times 5 = 30)$

- (a) Bacterial Capsule.
- (b) Eltor vibrios.
- (c) Alternate pathways of complement.
- (d) Natural killer cells.
- (e) Western blot analysis.
- (f) TRIC agent.

FEBRUARY 2008

[KS 540]

Sub. Code: 4061

SECOND M.B.B.S. DEGREE EXAMINATION.

Revised (Non-Semester) Regulations

Paper I — GENERAL MICROBIOLOGY, IMMUNOLOGY AND SYSTEMATIC BACTERIOLOGY

Q.P. Code: 524061

Time: Three hours Maximum: 100 marks

Theory: Two hours and Theory: 80 marks

forty minutes

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

Answer ALL questions.

Draw suitable diagrams wherever necessary.

- I. Essay:
- 1. Define and classify hypersensitivity. Describe Type I hypersensitivity reaction. (15)
- 2. Classify vibrios. Describe the pathogenesis and laboratory diagnosis of cholera. Add a note on prophylaxis. (15)

II. Write short notes on:

- (a) Bacterial spore.
- (b) Sterilisation by radiation.
- (c) Bacterial conjugation.
- (d) Laboratory diagnosis of Leptospirosis.
- (e) Monoclonal antibodies.
- (f) Antibiotic sensitivity test.
- (g) Bacterial growth curve.
- (h) Hot air oven.
- (i) Helicobacter pylori.
- (i) Immunofluorescence.