

First Basic B.Sc. Nursing Examination, Summer 2018
MICROBIOLOGY

Total Duration : Section A+B = 3 Hours

Total Marks : 75

SECTION - A & SECTION - B

- Instructions :**
- 1) Use **blue/black** ball point pen **only**.
 - 2) **Do not** write anything on the **blank portion of the question paper**. If written anything, such type of act will be considered as an attempt to resort to unfair means.
 - 3) **All questions are compulsory**.
 - 4) The number to the **right** indicates **full marks**.
 - 5) Draw diagrams **wherever necessary**.
 - 6) Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame. The Question paper pattern is a mere guideline. Questions can be asked from any paper's syllabus into any question paper. Students cannot claim that the Question is out of syllabus. As it is only for the placement sake, the distribution has been done.
 - 7) Use a common answerbook for **all Sections**.

SECTION - A (40 Marks)

1. Short answer question (**any five** out of six) : (5×5=25)
 - a) Write differences between Active and Passive Immunity.
 - b) Write a note on Candidiasis.
 - c) Write a note on Grams staining.
 - d) Classify immunoglobulins and write in short about IgG.
 - e) Contribution of Louis Pasteur.
 - f) Define carrier and describe various types of carrier with example.
2. Long answer question (**any one** out of two) : (1×15=15)
 - a) Enlist organisms causing diarrhea. Write in detail about pathogenesis and laboratory diagnosis of cholera.
 - b) Define Sterilization and Disinfection. Enumerate methods of sterilization. Write the principles and functioning of Autoclave.

SECTION – B (35 Marks)

3. Short answer question (any four out of five) : (4×5=20)
- Bacterial growth curve.
 - Pathogenicity of *Staphylococcus aureus*.
 - Oral Polio Vaccine.
 - Biomedical waste management.
 - Classify culture media with example.
4. Long answer question (any one out of two) : (1×15=15)
- Define Nosocomial infection. Describe modes of transmission of Nosocomial infection. Role of a Hospital Infection Control Nurse (HICN).
 - Enumerate parasites found in blood smear. Describe Life cycle of Malaria parasite. Write in short about Lab diagnosis of Malaria.

(15 Marks)

(15 Marks)

First Basic B.Sc. Nursing Examination, Winter 2017
MICROBIOLOGY

Total Duration : Section A + B = 3 Hours

Total Marks : 75

SECTION – A & SECTION – B

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 - 7) **Use a common answerbook for all Sections.**

SECTION – A (40 Marks)

1. Short answer question (**any five out of six**) : **(5×5=25)**
 - a) Koch's Postulates.
 - b) Write down the principle and application of agglutination reaction.
 - c) Write in short about autoclave.
 - d) Draw well labelled diagram of embryonated egg. Mention the various sites of inoculation of viral specimens with examples.
 - e) Write down the differences between amoebic and bacillary dysentery.
 - f) Universal safety precautions.

2. Long answer question (**any one out of two**) : **(1×15=15)**
 - a) Write pathogenesis and laboratory diagnosis of enteric fever.
 - b) Write in detail about Hospital waste management.

SECTION – B (35 Marks)

3. Short answer question (**any four** out of five) : (4×5=20)
- a) Write down the differences between oral and killed polio vaccine.
 - b) What are the various modes of transmission of infections ?
 - c) Write down the morphological classification of fungi with examples.
 - d) Bacterial growth curve.
 - e) Write the life cycle of *Pl. vivax*.
4. Long answer question (**any one** out of two) : (1×15=15)
- a) Draw well labelled diagram of HIV virus. Write modes of Transmission of AIDS. Write in detail pathogenesis and laboratory diagnosis of AIDS.
 - b) Enumerate the organisms causing urinary tract infection. Write down the laboratory diagnosis of UTI.
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SECTION - B

(35 Marks)

3. Short answer question (any four out of five) :

(4×5=20)

- a) Biomedical waste management.
- b) Life cycle of malaria parasite.
- c) Describe the normal microbial flora of different parts of the body.
- d) Blood culture.
- e) Laboratory diagnosis of urinary tract infections.

4. Long answer question (any one out of two) :

(1×15=15)

- a) Define Sterilization and Disinfection. Classify methods of Sterilization. Write a short note on Hot Air oven.
- b) Draw a neat diagram of HIV. Write the causes of HIV infection. Write the stages of HIV infection.



First Basic B.Sc. Nursing Examination, Summer 2016
MICROBIOLOGY

Total Duration : Section A+B = 3 Hours

Total Marks : 75

SECTION – A & SECTION – B

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 - 5) *Draw diagrams wherever necessary.*
 - 6) *Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame. The Question paper pattern is a mere guideline. Questions can be asked from any paper's syllabus into any question paper. Students cannot claim that the Question is out of syllabus. As it is only for the placement sake, the distribution has been done.*
 - 7) *Use a common answer book for all Sections.*

SECTION – A

(40 Marks)

1. Short answer question (any five out of six) :

(5×5=25)

- a) Grams staining.
- b) Mention different modes of transmission of infection
- c) Bacterial growth curve.
- d) Life cycle of Malaria parasite.
- e) Candidiasis.
- f) Precipitation reaction.

2. Long answer question (any one out of two) :

(1×15=15)

- a) Mention the modes of transmission of HIV. Write in detail about pathogenesis and Laboratory diagnosis of AIDS.
- b) Define Nosocomial infection. Describe common Nosocomial infections. Role of a nurse in prevention of nosocomial infection.



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SECTION - B

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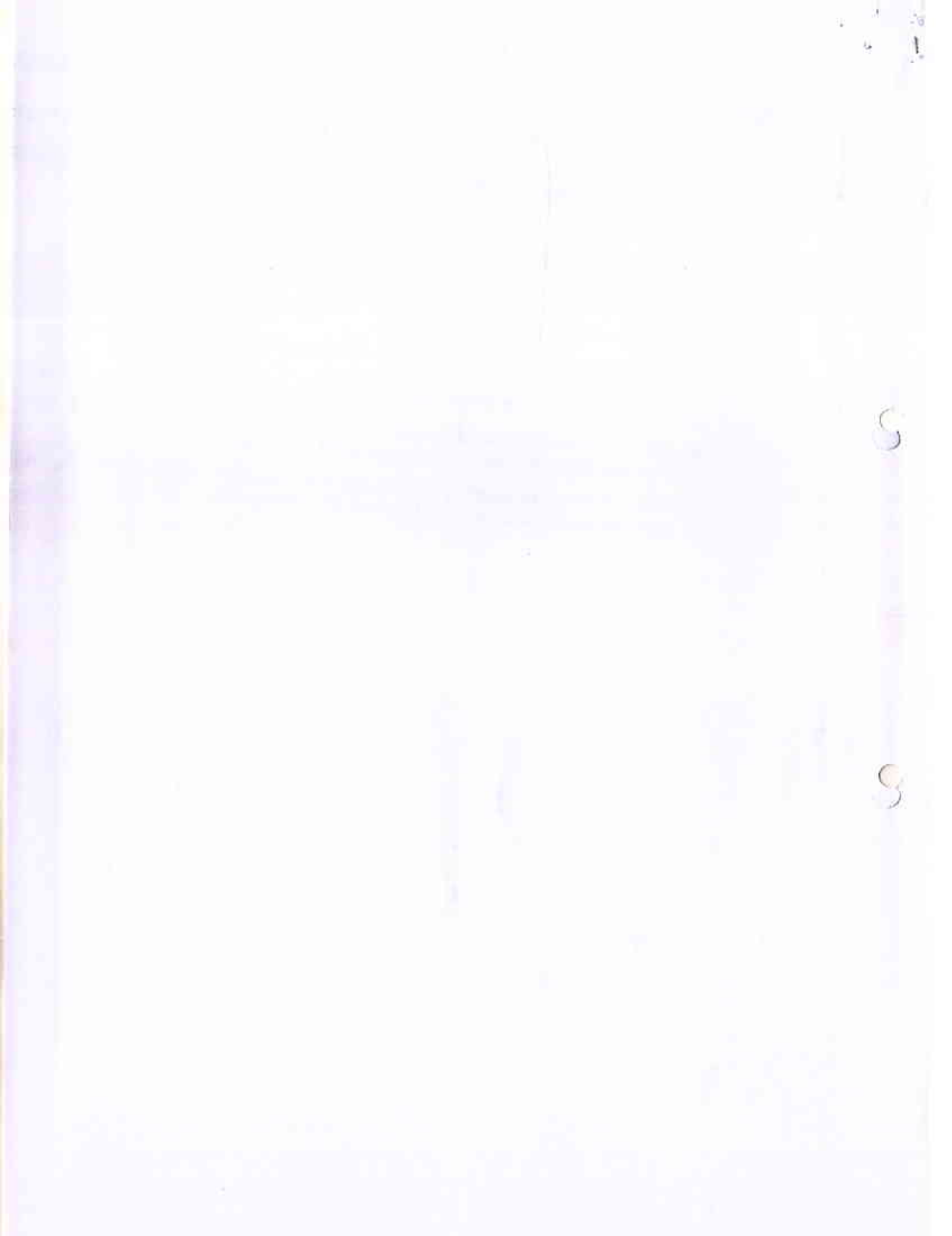
3. Short answer question (any four out of five) :

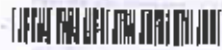
- a) Classify culture media with example.
- b) Difference between Active and Passive immunity.
- c) Biomedical waste segregation.
- d) Bacterial Flagella.
- e) Define carrier. Explain different types with examples.

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4. Long answer question (any one out of two) :

- a) Define Sterilization and Disinfection. Write characteristics of good disinfectant. Describe uses, structure, functioning of Hot air oven.
 - b) Enlist organisms causing respiratory tract infection. Write in detail about pathogenesis and laboratory diagnosis of Tuberculosis.
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**First Basic B.Sc. Nursing Examination, Winter 2016
MICROBIOLOGY**

Total Duration : Section A + B = 3 Hours

Total Marks : 75

Section – A & Section – B

- Instructions :**
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 - 2) **Do not** write anything on the **blank portion of the question paper**. If written anything, such type of act will be considered as an attempt to resort to unfair means.
 - 3) **All questions are compulsory**.
 - 4) The number to the **right** indicates full marks.
 - 5) **Draw diagrams wherever necessary**.
 - 6) Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame. The Question paper pattern is a mere guideline. Questions can be asked from any paper's syllabus into any question paper. Students cannot claim that the Question is out of syllabus. As it is only for the placement sake, the distribution has been done.
 - 7) **Use a common answerbook for all section**.

SECTION – A (40 Marks)

1. Short answer question (any five out of six) : (5×5=25)
 - a) Bio-medical Waste management.
 - b) Anaerobic culture methods.
 - c) Blood culture.
 - d) Define antibody and explain in detail about IgM antibody.
 - e) Bacterial spore.
 - f) Enlist Koch's Postulates.

2. Long answer question (any one out of two) : (1×15=15)
 - a) What are nosocomial infections ? What are the common causes of nosocomial infections ? What is the role of nurse in controlling nosocomial infections ?
 - b) Describe Growth curve of Bacteria with a labelled diagram. What is the effect of temperature, moisture and presence of oxygen on the growth of bacteria ?

SECTION – B (35 Marks)

3. Short answer question (any four out of five) : (4×5=20)
- Describe pathogenicity of Salmonella.
 - Highlight the importance of sample collection in Microbiology.
 - What are the different parts of a microscope and how you will take care of the microscope ?
 - List 4 DNA viruses and 4 RNA viruses.
 - Laboratory diagnosis of pulmonary tuberculosis.
4. Long answer question (any one out of two) : (1×15=15)
- What is disinfection ? Describe various chemical methods of Disinfection.
 - Draw a neat and well labelled diagram of bacterial cell. Describe in detail about different organelles of bacteria.



Section - A & Section - B

Instructions:

- 1) Use **blue/black** ball point pen only.
- 2) **Do not** write anything on the **blank portion** of the question paper. If written anything, such type of act will be considered as an attempt to resort to unfair means.
- 3) **All** questions are **compulsory**.
- 4) The number to the **right** indicates **full** marks.
- 5) Draw diagrams **wherever** necessary.
- 6) Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame. The Question paper pattern is a mere guideline. Questions can be asked from any paper's syllabus into any question paper. Students cannot claim that the Question is out of syllabus. As it is only for the placement sake, the distribution has been done.
- 7) Use a common answer book for **all** sections.

Section "A" (40 Marks)

1. Short answer question (**any five** out of two) (5x5=25)
 - a) Biomedical waste management.
 - b) Z.N. staining.
 - c) Pathogenicity of tuberculosis.
 - d) Hypersensitivity type I.
 - e) General characteristics of Viruses.
 - f) Contribution of Louis Pasteur.
2. Long answer question (**any one** out of two) : (1x15=15)
 - a) Define the term Immunity. Write the differences between Active and Passive Immunity. Explain the National Immunization Schedule.
 - b) Define sterilization and disinfection. Classify methods of sterilization by heat. Describe Hot Air Oven.

Section "B" (35 Marks)

3. Short answer question (**any four** out of five) : (4x5=20)
 - a) Life cycle of Malaria parasite.
 - b) Give three different types of fungal classifications.
 - c) Bacterial growth curve.
 - d) Pathogenicity of vibrio cholera.
 - e) Normal Microbial flora of human body.
4. Long answer question (**any one** out of two) : (1x15=15)
 - a) Draw a neat & well labelled diagram of HIV. What are the modes of transmission of HIV ? Discuss in detail about the laboratory diagnosis of HIV.
 - b) Name the organism causing Enteric fever and explain its cultural characteristics. Discuss the Laboratory diagnosis of typhoid.



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The following table shows the results of the experiment. The data indicates that the system is highly accurate and reliable. The results are consistent across all trials and conditions. The system is able to handle complex tasks and maintain high performance levels. The data shows that the system is capable of processing large amounts of information quickly and accurately. The results are very promising and indicate that the system is ready for deployment. The data shows that the system is able to handle a wide range of tasks and maintain high performance levels. The results are very promising and indicate that the system is ready for deployment.



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First Basic B.Sc. Nursing Examination, Summer 2015
MICROBIOLOGY

Total Duration : Section A + B = 3 Hours

Total Marks : 75

SECTION – A & SECTION – B

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 - 3) All questions are **compulsory**.
 - 4) The number to the **right** indicates full marks.
 - 5) Draw diagrams **wherever necessary**.
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 - 7) Use a common answer book for all Sections.

SECTION – A

(40 Marks)

1. Short answer question (any five out of six) : (5×5=25)
 - a) Blood culture.
 - b) Write a note on bacterial growth curve.
 - c) Write a note on Koch's postulates.
 - d) Write pathogenicity of *Candida albicans*.
 - e) Life cycle of *Ascaris Lumbricoides* (round worm)
 - f) Write a note on gram staining.
2. Long answer question (any one out of two) : (1×15=15)
 - a) Draw a neat, well labelled diagram of HIV. Write modes of transmission of HIV. Write pathogenicity and laboratory diagnosis of HIV.
 - b) Enumerate respiratory tract infections. Write morphology, pathogenicity and laboratory diagnosis of *Mycobacterium tuberculosis*.

P.T.O.

SECTION - B

(35 Marks)

3. Short answer question (any four out of five) :

(4×5=20)

- a) Write a note on Bacterial Cell wall.
- b) Agglutination reactions.
- c) Standard safety precautions while working in microbiology laboratory.
- d) Widal test.
- e) Type I Hypersensitivity reaction.

4. Long answer question (any one out of two) :

(1×15=15)

- a) Define sterilization. Describe in detail about sterilisation by heat.
- b) Define Immunity. Classify Immunity. Add a note on National Immunization schedule.

First BASIC B.SC. NURSING, Winter 2014
Microbiology

Total Duration: Section A+B = 3 Hours

Total Marks : 75

Section - A & Section - B

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- 3) All questions are compulsory.
- 4) The number to the right indicates full marks.
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- 7) Use a common answer book for all section.

Section "A" (40 Marks)

1. Short answer question (any five out of six) :

(5x5=25)

3 a) scope of Microbiology in Nursing practice

3 b) Define Immunity and Differentiate between Active and Passive Immunity.

2 c) Pathogenesis of Salmonella typhi

3 d) Universal Safety precautions .

e) Describe the procedure of Gram staining and write down the names of 2 Gram Positive and Gram Negative organisms each

2 e) Hospital Infection Control

2. Long answer question (any one out of two) :

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10 a) Classify Culture Media. Describe each type of culture media with one example of each.

10 b) Define biomedical waste. Describe Biomedical waste management in detail.

(1x15=15)

Section "B" (35 Marks)

3. Short answer question (any four out of five) :

(4x5=20)

3 a) Enumerate Koch's Postulates

4 b) Define sterilization and classify various methods of sterilization.

1 c) Classify viruses and explain the various methods of cultivation of viruses.

2 d) Describe various antigen antibody reactions and give example of each.

2 e) Write classification of bacteria based on their shape and give examples of each.

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4. Long answer question (any one out of two) :

(1x15=15)

12 a) Describe factors affecting growth of bacteria. Draw, label and explain the bacterial growth curve.

b) Describe various modes of transmission of infection with examples of each.

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First Basic B.Sc. Nursing Examination, Summer 2014
MICROBIOLOGY

Total Duration : Section A + B + C = 3 Hours

Section B & C Marks : 60

SECTION – B & SECTION – C

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 - 3) **All questions are compulsory.**
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 - 7) Use a common answer book for **all Sections**.

SECTION – B

(30 Marks)

(5x3=15)

2. Answer the following (**any five** out of six) :
- a) Write a short note on bacterial growth curve.
 - b) Describe the procedure of Grams Staining.
 - c) Write a short note on Bacillary dysentery.
 - d) Write a short note on IgM.
 - e) Mention the contribution of Louis Pasteur.
 - f) Describe Bacterial Cell Wall.

3. Answer the following (**any three** out of four) :

(3x5=15)

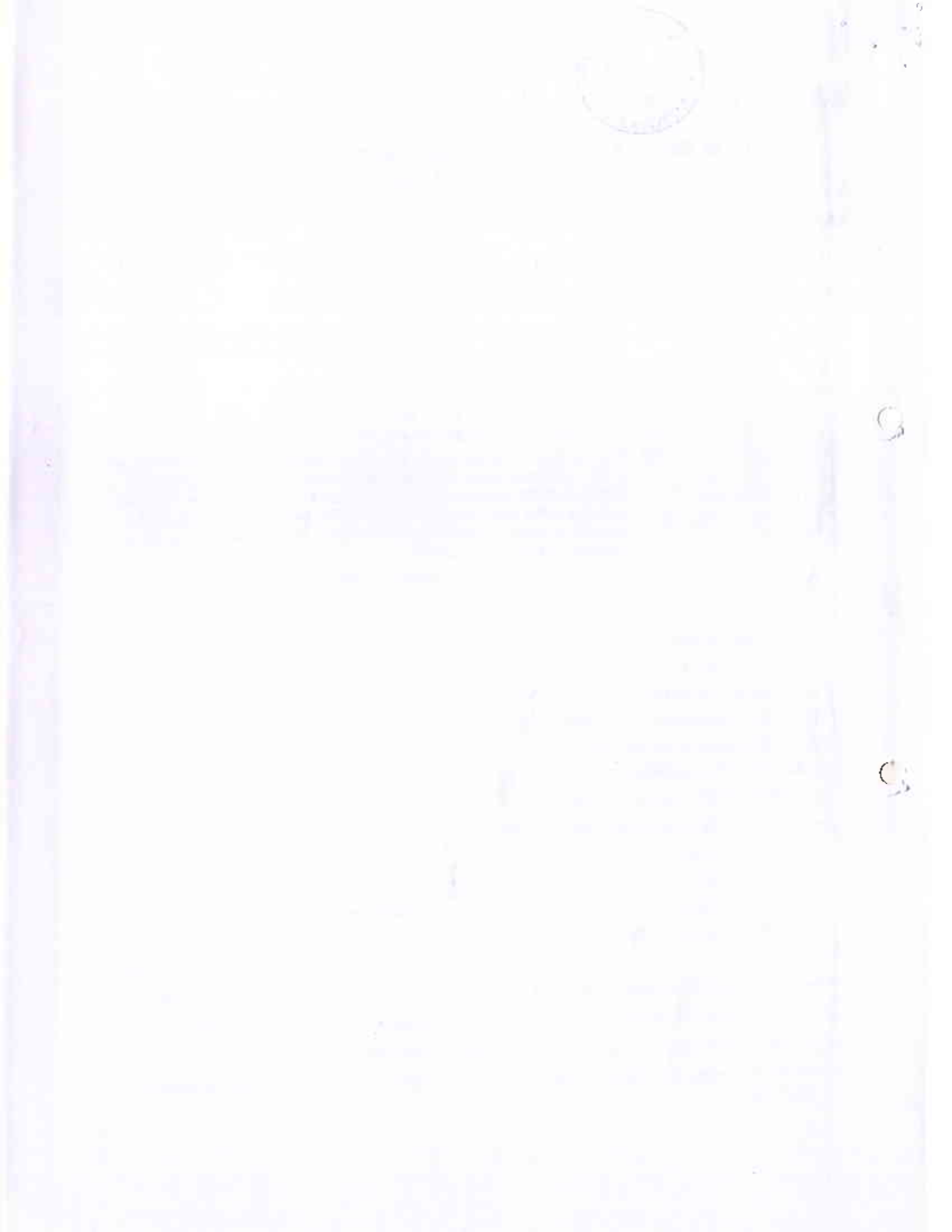
- a) Write contributions of Robert Koch.
- b) Describe laboratory diagnosis of Tuberculosis.
- c) Describe physical method of sterilization with respect to Dry and Moist Heat.
- d) Write a note on Nosocomial Infection.

SECTION – C

(30 Marks)

(2x15=30)

4. Answer the following (**any two** out of three) :
- a) Define Culture Media and Describe different types of culture media with example.
 - b) What is Immunity ? Explain different types of immunity.
 - c) What is Infection ? What is infection Control ? Explain the role of Nurses in infection control.



First Basic B.Sc. Nursing Examination, Summer 2012
MICROBIOLOGY

Total Duration: Section A + B + C = 3 Hours

Section B & C Marks: 60

SECTION - B & SECTION - C

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SECTION - B

2. Answer the following (any five out of six) : (5×3=15)
 - a) Draw a neat diagram of ova of Trichuris trichiura.
 - b) Name 3 DNA and 3 RNA viruses.
 - ✓ c) Enumerate Enzymes and Toxins produced by S.pyogenes and their role.
 - d) Write working concentrations of various disinfectants used for
 - i) Skin preparation, ii) Floor cleaning, iii) Endoscope sterilization
 - e) Draw a neat diagram of embryonated egg, label different parts and viruses inoculated in them.
 - f) Name opportunistic fungal infections.

3. Answer the following (any three out of four) : (3×5=15)
 - a) Differences between Amoebic and Bacillary dysentery.
 - b) Classify medias with examples.
 - ✓ c) Biomedical waste management.
 - ✓ d) Naegler's reaction.

SECTION - C

- Answer the following (any two out of Q. 4, Q. 5 and Q. 6) : (2×15=30)
4. Describe the structure, pathogenicity and lab diagnosis of human immunodeficiency virus. (3+4+8)
 5. Define and give examples of heterophile agglutination. 4
 Explain prozone phenomenon. 3
 Add a note on Widal test. 8
 6. Describe morphology, life cycle and lab diagnosis of Ancylostoma duodenale. (3+6+6)

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY

MEMORANDUM FOR THE RECORD

DATE: 10/15/54

TO: DR. J. H. COOPER

FROM: DR. R. W. WOOD

RE: IR SPECTRA OF
POLYMERIZATION PRODUCTS

1. IR spectra of the polymerization products

are shown below.

The IR spectra were obtained from the following samples:
Sample 1: Polymerization product of ethylene and acrylonitrile.
Sample 2: Polymerization product of ethylene and styrene.
Sample 3: Polymerization product of ethylene and methyl methacrylate.
Sample 4: Polymerization product of ethylene and vinyl acetate.
Sample 5: Polymerization product of ethylene and vinylidene chloride.
Sample 6: Polymerization product of ethylene and vinyl chloride.
Sample 7: Polymerization product of ethylene and vinyl bromide.
Sample 8: Polymerization product of ethylene and vinyl fluoride.
Sample 9: Polymerization product of ethylene and vinylidene fluoride.
Sample 10: Polymerization product of ethylene and vinylidene chloride.

Reference:

1. J. H. Cooper, J. Polym. Sci., 14, 1 (1954).
2. J. H. Cooper, J. Polym. Sci., 14, 1 (1954).
3. J. H. Cooper, J. Polym. Sci., 14, 1 (1954).
4. J. H. Cooper, J. Polym. Sci., 14, 1 (1954).
5. J. H. Cooper, J. Polym. Sci., 14, 1 (1954).
6. J. H. Cooper, J. Polym. Sci., 14, 1 (1954).
7. J. H. Cooper, J. Polym. Sci., 14, 1 (1954).
8. J. H. Cooper, J. Polym. Sci., 14, 1 (1954).
9. J. H. Cooper, J. Polym. Sci., 14, 1 (1954).
10. J. H. Cooper, J. Polym. Sci., 14, 1 (1954).

W. WOOD

DR. R. W. WOOD, DEPARTMENT OF CHEMISTRY, UNIVERSITY OF CHICAGO, CHICAGO, ILL.

DR. J. H. COOPER, DEPARTMENT OF CHEMISTRY, UNIVERSITY OF CHICAGO, CHICAGO, ILL.

DR. R. W. WOOD, DEPARTMENT OF CHEMISTRY, UNIVERSITY OF CHICAGO, CHICAGO, ILL.

DR. J. H. COOPER, DEPARTMENT OF CHEMISTRY, UNIVERSITY OF CHICAGO, CHICAGO, ILL.

DR. R. W. WOOD, DEPARTMENT OF CHEMISTRY, UNIVERSITY OF CHICAGO, CHICAGO, ILL.

W. WOOD

First Basic B.Sc. Nursing Examination, Winter 2011 MICROBIOLOGY

Total Duration: Section A + B + C = 3 Hours

Section B & C Marks : 60

SECTION - B & SECTION - C

- Instructions:*
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SECTION - B

2. Answer the following (any five out of six) : (5×2=10)
- a) Autoclave
 - b) Bacterial growth curve
 - c) Blood culture
 - d) BCG
 - e) Bacterial flagella
 - f) Difference between Classical and *Vibrio*

3. Answer the following (any three out of four) : (3×5=15)
- a) Serological test for Syphilis
 - b) Precipitation reaction
 - c) Mycetoma
 - d) Bacterial food poisoning.

SECTION - C

- Answer any two I.A.Q out of Q. 4, 5 and 6 :
4. a) State important differences between Bacteria and *Viruses*. (2×15=30)
 b) Methods of cultivation of viruses. 4 (4+6+5=15)
 c) Write laboratory diagnosis of viral infection in short. 6
 5. a) Define sterilization and list various methods of sterilization. 6 (6+4+5=15)
 b) Define disinfectant and antiseptic. 4
 c) Describe procedure for sterilization of Operation Theatre. 5
 6. a) List the various organisms causing diarrhea. 4 (4+5+6=15)
 b) Describe morphology and cultural characteristics of *Vibrio cholera*. 5
 c) Write in short laboratory diagnosis of diarrhea. 6

