

Total Pages—2

C/11/P.M.-BMLT/5th Seme./14(Unit-27)

2011

BMLT

5th Semester Paramedical Examination

CLINICAL MICROBIOLOGY

PAPER—XIV (Unit-27)

Full Marks : 35

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer Question No. 1 and any three from the rest.

1. Answer any five of the following : 1×5
- (a) What is the difference of cell wall between gm^{+ve} & gm^{-ve} bacteria ?
 - (b) What do you mean by disinfection ?
 - (c) Agar-Agar is used for solidification of media justify it ?
 - (d) Why pasteurisation of milk is important ?
 - (e) What is responsible for the acid fastness of Z-N stain ?
 - (f) What is extrinsic incubation period ?
 - (g) What do you mean by sterile fungi ?

(Turn Over)

2091

Answer any three of the following

10x3

2. (a) Describe the classification of media used in the laboratory.
(b) How will you prepare Mac Conkey's media?
(c) Why there is no swarming growth in Mac Conkey's media? 4+4+2

3. (a) What do you mean by dysentery?
(b) Name the organism responsible for this condition.
(c) Describe the method of isolation of shigella from stool. 2+3+5

4. (a) How will you collect the following clinical samples and send it to the laboratory — urethral discharge, cervical discharge and stool?
(b) What are the different precautions you will take to work within a laboratory. 6+4

5. (a) Classify fungi morphologically and give examples for each of them.
(b) What do you mean by Mycetoma? Name the fungi responsible for this.
(c) Name some dimorphic fungi. (3+1)+(2+2)+2

6. (a) Classify Helminthes and give two important characteristics of each of them.
(b) Describe the life cycle of Ascaris Lumbricoidus.
(c) How can you identify cysts from a fecal sample? (3+1)+4+2

Total Pages—2

C/12/P.M./BMLT/5th Sème./14(Unit-27)

2012

BMLT

5th Semester Paramedical Examination

CLINICAL MICROBIOLOGY

PAPER—XIV (Unit-27)

Full Marks : 35

Time : 2 Hours

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Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer Question No. 1 and any three from the rest.

1. Answer any five of the following : 1×5
- (a) Name two differential staining method used in microbiology.
 - (b) Why liquid paraffin is used to prepare RCM Media?
 - (c) Name two common bacterial infection transmitted by unpasteurized or unboiled milk.
 - (d) Which media is commonly used for isolation of fungi?
 - (e) What do you mean by Sterilization?
 - (f) Draw a diagram of Hook worm ova.
 - (g) Name two methods of observing mortality of a bacteria.
 - (h) What do you mean by shizont?

(Turn Over)

2012

2. (a) How will you prepare Sugar media and Sterilize them?
(b) Define selective media.
(c) Describe the methods of Sterilization of LJ Media. (3+2)+2+3
3. (a) What is enteric fever?
(b) Name the bacterias responsible for this condition.
(c) Describe the method of blood culture to diagnosis of the disease. 2+2+6
4. (a) Write down the method of collection of urine sample and sending it to the laboratory.
(b) Name the bacterias causing urinary tract infection.
(c) What is Significant bacteriurea? 5+3+2
5. (a) Name the protozoan found in blood.
(b) Describe the laboratory diagnosis of Leishmaniasis. 2+8
6. (a) Classify dermatophytes. Morphologically and give examples of each of them.
(b) Describe the method of collection of nail in a patient of onychomycosis and how will you send it to the laboratory. (4+2)+(3+1)

Spinal
media from
lack of nu
eg

V.R.S

... primitive structure produced by certain
... from the Firmicute phylum. It is not a true spore and formed
... lack of nutrition and usually occurs in gram positive bacteria.
eg: → ~~pen~~ *paenibacillus alvei*.

Total Pages—2

C/13/P.M./BMLT/5th Semc./14(U-27)

2013

BMLT

5th Semester Paramedical Examination

CLINICAL MICROBIOLOGY

PAPER—XIV (Unit-27)

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Time : 2 Hours

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Illustrate the answers wherever necessary.

Answer Q. No. 1 and any three questions from the rest.

1. Answer any five of the following : 1×5
- What do you mean by sterilization?
 - What are broth medium and semisolid medium?
 - What is ultra pasteurization?
 - What is thermophilic bacteria?
 - Give one example of Gram⁺ and one example of Gram⁻ bacteria.
 - What do you mean by generation time of bacteria?
 - What do you mean by sterile fungi?
 - What is endospore? Name one endospore producing bacterium.

1(c) ultra pasteurization: → It is sterilization of food by heating it for an extremely short period, around 1-3 seconds at a temperature exceeding 135°C. (Turn Over)

(d) Thermophilic bacteria: → which can survive in pasteurization process and grow only survive. eg: →

Thermophilic bacteria: → can grow at high temperature.

(f) generation time of bacteria: → time between two generation of bacteria.

(g) Sterile fungi: → group of fungi that do not produce any known spores either sexual or asexual spores. eg: →

U-R.S.

C/14/P.

2014

BMLT

4 Semester Paramedical

CLINICAL MICROBIOLOGY

PAPER—XIV (Unit)

Full Marks : : 100

Time : 2 Hours

2013

2

2. (a) How do you classify different risk group of micro-organism from the angle of Biosafety?
 (b) How the broth media is prepared in the laboratory?
 (c) How do you identify microbacterium tuberculosis — give a suitable test? 3+3+4

3. (a) Classify Helminthes and give two important characteristics of each of them.
 (b) Describe the life cycle of *Ascaris lumbricoides*.
 (c) How can you identify the cysts from a focal sample? (3+1)+4+2

4. How would you collect urine specimen for :
 (a) Antibiotic sensitivity test and write the names of common antibiotic disc used during this test.
 (b) What types of safety precautions will you take to avoid cross contamination?
 (c) How do you perform quality assessment for culture and sensitivity test of urine? (3+2)+2½+2½

5. (a) Describe the method of asexual reproduction of fungi.
 (b) Mention the name of diseases caused by *Aspergillus niger* and *Candida albicans*.
 (c) How do you collect sputum and urogenital swab? 4+2+4

6. Describe different types of test for bacterial differentiation. 10

Handwritten scribble

Handwritten scribble

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2014

BMLT

5th Semester Paramedical Examination

CLINICAL MICROBIOLOGY

PAPER—XIV (Unit-27)

Full Marks : 35

Time : 2 Hours

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Illustrate the answers wherever necessary.

Answer Q. No. 1 and any three questions from the rest.

1. Answer any five of the following : 5×1

- (a) What are different types of haemolysis found in blood-agar ?
- (b) What is the role of Gram's iodine in Gram's Staining ?
- (c) Name of the methods used in Sterilization of Lab room ?
- (d) What is LPS ?
- (e) Write down the name of two cyst's found in stool.
- (f) What is Psychrophilic bacteria ?
- (g) What do you mean by daughter cell of bacteria ?
- (h) What are the role of pili.

(Turn Over)

2014

2. (a) Why gram a positive bacteria are gram
gram negative bacteria are gram negative
- (b) Why Mycobacterium tuberculosis are Called Acid fast
bacilli & state the morphological, Culture
Characteristics.

$$4+(1+2\frac{1}{2}+2\frac{1}{2})$$

3. (a) What are the different b/w sterilization & Disinfection.
- (b) Briefly discuss the different methods of sterilization.

$$3+7$$

4. (a) Classify media and give example of each.
- (b) What do you mean by enrichment media? How do you
prepare chocolate agar and blood agar?

$$4+(1+2\frac{1}{2}+2\frac{1}{2})$$

5. (a) Which organisms are mostly responsible for UTI and
How you will collect urine sample for Lab-diagnosis
of E. Coli?

- (b) How you will performed MIC and MBC?

$$(1+3)+6$$

6. (a) What is endo spore? Why and how it will generate
by bacteria?

- (b) Classify dermatophytes and briefly discuss about
them.

$$(1+3)+6$$

9.7.15

C/15/P.M./BMLT/5th Seme./14(U-27)

2014

BMLT

5th Semester Paramedical Examination

CLINICAL MICROBIOLOGY

PAPER—XIV (Unit-27)

Full Marks : 35

Time : 2 Hours

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Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer Q. No. 1 and any three questions from the rest.

1. Answer any five of the following :

5×1

- (a) What is fimbriae ?
- (b) Why tubercle bacilli are acid fast ?
- (c) By which method spores of all medically important species of microorganisms are destroyed ?
- (d) Name one capsulated organism.
- (e) Name the organs of motility.
- (f) What do you mean by antiseptic ?
- (g) Which method is preferred for obtaining isolated colonies ?
- (h) What is anaerobic bacteria ?

5th Semester

(Turn Over)

- 2514
- 2
- 5th Sem
2. (a) Name the enzyme, toxin and disease caused by *streptococcus pyogens*.
(b) What is ASO titre?
(c) Which test can differentiate streptococcus from staphylococcus?

(2+2+2)+2+2

3. (a) Define sterilization.
(b) Write the principle, holding time and temperature of various methods of moist heat sterilization.

2+8

4. (a) What is acid-fast bacillus (AFB)?
(b) Give the example of this bacteria.
(c) What is the sample used in pulmonary tuberculosis?
(d) Describe the morphology of the bacteria with diagram.

2+2+1+5

5. (a) What is UTI?
(b) Name the causative agent of UTI.
(c) Write the laboratory diagnosis of UTI.

2+2+6

6. (a) What is culture media?
(b) How do you prepare chocolate agar media?
(c) Name the organisms responsible for sore throat.

3+3+4

16

OLD

2015

BMLT

5th Semester Paramedical Examination

CLINICAL MICROBIOLOGY

PAPER—XIV (Unit-27)

Full Marks : 35

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer Q. No. 1 and any *three* questions from the rest.

1. Answer any *five* of the following : 5×1

- (a) What is 'Selective Media'?
- (b) Write the difference between cell wall of 'Gram Positive' and 'Gram Negative Bacteria'?
- (c) What is thermophilic bacteria?
- (d) Write the full form of TCBS and L-J media?
- (e) What are the organisms responsible for Enteric fever?
- (f) Vaseline, Aprons should be sterilized by—?
- (g) What do you mean by MIC?
- (h) What do you mean by extrapulmonary tuberculosis?

(Turn Over)

2. (a) What do you mean by Sterilization and disinfection? during
(b) What are the different Chemicals disinfection? 3+3+4
(c) What type of precautions and taken during sterilization regarding Quality Control? 3+3+4
3. Write short notes on : $2\frac{1}{2} \times 4$
(a) Coagulase test;
(b) Anaerobic Culture method;
(c) Differential Stain;
(d) TSI media.
4. (a) How do you identify candidate species and differentiate it from bacterial infection?
(b) How will you perform Antibiotic Sensitivity test in your Laboratory with special reference to the use of antibiotic disc of different generation. 10
5. (a) Name the bacterias responsible for granulomatous growth.
(b) Why initial urine during micturation is avoided for microbiological test of urine sample?
(c) Describe the laboratory methods for the isolation of different bacteria causing UTI? 2+2+6
6. (a) What are the differences between Virus and Bacteria?
(b) What are Dermatophytes? Briefly describe about them?
(c) What are the different methods used in the laboratory for diagnosis of fungal disease? 2+(1+4)+3

BMLT 5th Semester Examination, 2016

CLINICAL MICROBIOLOGY

PAPER – XIV (U-27)

Full Marks : 40

Time : 2 hours

Answer Q. No. 1 and any three from the rest

The figures in the right-hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

UNIT – 27

1. Answer any five of the following : 2 × 5

(a) Why Mycobacterium doesn't take gram stain directly ?

(b) What is the function of pili and flagella ?

(Turn Over)

- (c) What are the types of bacteria and their shape?
- (d) Why gram Negative bacteria do not take crystal violet?
- (e) What is pasteurization?
- (f) What is transport media? Give example.
- (g) Write the full form of L.P.S and function.
- (h) What do you mean by mesosome?

2. What is culture media? Why it's need in microbiology? Write down the preparation of blood agar and chocolate agar. $2 + 2 + 3 + 3$

3. Write down the principle of Gram stain and ZN stain. Why Gram positive bacteria are Gram positive and Gram negative bacteria are Gram negative? $3 + 3 + 4$

4. Write the differences among sterilization, disinfection and antiseptic? Write the different types of sterilization in the laboratory. $3 + 7$

(3)

- What is fungus ? What are the different methods of sample collection and lab-diagnosis ? 1 + 3 + 6**
- 6. What is the Causative bacteria for pyogenic meningitis ? Write down the laboratory diagnosis and pathogenesis of that disease. 1 + 7 + 2**
-

cs-3

C/18/PM/BMLT/5th Sem(N)/14(U-27)

Dehpujan

NEW

2017

BMLT

5th Semester Paramedical Examination

CLINICAL MICROBIOLOGY

PAPER—XIV (Unit-27)

Full Marks : 40

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer Q. No. 1 and any three from the rest.

1. Answer any five questions : 5×2

- ✓ (a) What is Fastidious bacteria ? Give example.
- ✓ (b) What are the difference between cell wall of Gram positive and Gram Negative bacteria ?

(Turn Over)

- (c) What do you mean by selective media example.
- (d) What is Tyndallization ?
- (e) What is the principle of Indole test ?
- (f) What is modified Z-n stain ?
- (g) What is 'Dimorphic Fungi' ?
- (h) 'Swarming is not seen in Mac conkey Agar'—comment on this statement.

Handwritten notes: *C.F. → Histoplasma*

2. Classify bacteria according to their oxygen requirement.

Write different methods of sterilization by moist heat at below 100°C. What is sterilization control ?

Handwritten: *4+3+3*

3. Name the bacteria causing Urinary Tract infection (UTI).

What is significant of Bactenurea ? How will you proceed for Laboratory diagnosis in a case of UTI ?

Handwritten: *2+2+6*

4. Define Dermatophytes. Name same condition caused by Dermatophytes. How will you diagnose candida infection in your Laboratory?

Handwritten: *2+3+5*

Handwritten: *Microscopic*

Handwritten notes: *(a) What is fastidious bacteria? (b) What are the difference between cell wall of Gram positive and Gram Negative bacteria?*

Enumerate the different risk group of microorganism in microbiology Laboratory. Write a note on Pre-exposure and post-exposure prophylaxis of Rabies.

4+6

6. How will you perform Antibiotic sensitivity test in your Laboratory? Name same common antibiotics used in this test. How will you dispose a disposable syringe after using it?

6+2+2

BMLT 5th Semester Examination, 2018

CLINICAL MICROBIOLOGY

PAPER – XIV (U-27)

Full Marks : 40

Time : 2 hours

Answer Q.No.1 and any three from the rest

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

1. Answer any *five* questions : 2 × 5

(a) Why formalin is used to clean the floor on which microbiological work to be done ?

(b) From which part of the body the Specimen sample for tuberculosis and cholera detection is collected ?

(c) What is oil immersion objective ?

(Turn Over)

(2)

- (d) What is agar ? Mention its use.
- (e) What is the basic difference between pathogen and opportunistic pathogen ?
- (f) What is mycotoxicosis ?
- (g) What are the causative agents of influenza and tuberculosis ?
- (h) Write the full form of RCM and CONS.
2. What are the basic rules and regulations for aseptic working in microbiological laboratory ? What is biosafely level ? 6 + 4
3. What is culture media ? Give example write the process of differentiation of bacteria on the basis of Gram staining. What is the maximum magnification of a light microscope ? (2 + 1) + 6 + 1
4. Write short notes on : 3 + 3 + 4
- (i) Antibiotic resistance
 - (ii) Pathogen of UTI
 - (iii) Sterilization.

Write the symptoms, for
arsywe-10u. Write in brief
6. How candida infection ca
Classify fungi. What is subcut

(3)

- Write the symptoms, prevention and diagnosis of Swine-flu. Write in brief about Rabies treatment. (2 + 2 + 2) + 4
6. How candida infection can be diagnosed? Classify fungi. What is subcutaneous mycosis. 5 + (3 + 2)

BMLT/VS/CM/P-XIV
(U-XXVII)/19

BMLT 5th Semester Examination, 2019

CLINICAL MICROBIOLOGY

PAPER - XIV

Full Marks : 40

Time : 2 hours

Answer Q.No. 1 and any three from the rest

The figures in the right-hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

U - XXVII

1. Answer any five questions : 2×5

(a) Mention the effect of alcohol on bacteria ?

(b) What is inoculation in microbiology ?

(c) Define culture media ?

(Turn Over)

(2)

(d) What are the special features of phase-contrast microscope ?

(e) What is acid fast bacteria ?

(f) Mention the causative agent of Kalazar and Swain flu.

(g) What is candidosis ?

(h) What do you mean by opportunistic pathogen ?

2. Write the basic practices in microbiology to maintain sterile condition during microbiological work. Write the applications of autoclave, Laminar air flow system, cotton, formalin in microbial laboratory.

6 + 4

3. Explain the use of selective and differential media with example in microbiological laboratory.

What is the role of agar ? Mention the function of cedar wood oil in light microscopic observation ?

What is enriched media ?

(3 + 3) + 1 + 2 + 1

(3)

How does candida infection is treated ? Write the symptoms, diagnostic procedure and treatment of Influenza and measles. $3 + \left(3\frac{1}{2} + 3\frac{1}{2} \right)$

5. Write short notes on : $3 + 4 + 3$

(i) Mycotoxins

(ii) Gram staining

(iii) Bacterial capsule.

6. Write the diagnosis of any two mycotic infections of human. Describe in brief about quality control aspects in microbiology. $\left(2\frac{1}{2} + 2\frac{1}{2} \right) + 5$

Total Pages—3

BMLT/5th Sem/CM/P-XIV
(U-XXVII)/23

2022

BMLT 5th Semester Examination

Clinical Microbiology

PAPER — XIV

Full Marks : 40

Time : 2 hours

The figures in the right-hand margin indicate marks.

*Candidates are required to give their answers
in their own words as far as practicable.*

Illustrate the answers wherever necessary.

Answer Q. No. **1** and any **three** from the rest.

U — XXVII

1. Answer any **five** of the following questions :
2×5=10

(a) What do you mean by colonizer and pathogen?

(b) Why is MacConkey considered as both selective and differential medium?

(2)

(c) What is the clinical utility of antimicrobial susceptibility testing?

✓(d) Define culture media.

(e) Define the 'germ theory' of disease.

✓(f) Cite any two causative agents of UTI.

✓(g) Define the term 'sterilization'.

(h) What is meant by polymicrobial infection?

2. Write short notes on the following : 5+5=10

✓(a) Candidiasis

✓(b) AFB staining

3. ✓(a) State the clinical significance of dimorphic fungi.

✓(b) What are the biosafety measurements required to work with MTB samples? Specify the reasons.

⊙(c) How do you prepare blood agar media? 3+4+3=10

4. ✓(a) Briefly discuss about the QC of autoclave.

(b) What is the role of fumigation in room sterilization?

(c) *Candida* spp. is considered as opportunistic pathogen. Explain. 3+3+4=10

(3)

5. (a) Why is enrichment bacteriological media used during the processing of clinical specimens?
- (b) Why are antibiotics recommended in specific bacterial infections, but not in viral infections?
- (c) What is the role of spill management in infection prevention and control?

3+4+3=10

6. (a) Briefly discuss about the viruses causing respiratory infections.

- (b) Why is *Mycobacterium* spp. not microscopically visualized by Gram stain?

- (c) Discuss about the anaerobic culture.

5+2+3=10

★ ★ ★