

MANIPAL UNIVERSITY**THIRD YEAR B. Sc. M.L.T. DEGREE EXAMINATION – JUNE 2011****SUBJECT: HISTOPATHOLOGICAL TECHNIQUES****(COMMON FOR BOTH OLD AND NEW REGULATION)**

Tuesday, June 07, 2011

Time: 14:00-17:00 Hrs.

Max. Marks: 80

✍ Answer all questions.**1. Answer the following:**

- 1A. Explain the technique of obtaining Frozen sections, Instruments used for sectioning, Routinely used rapid staining technique.
- 1B. Define Decalcification. Discuss the different methods of decalcification and detection of end point by chemical method.

(15×2 = 30 marks)

2. Write detailed notes on:

- 2A. Staining and differentiation.
- 2B. Masson's Fontana method for melanin.
- 2C. Classification of polysaccharides.
- 2D. Embedding media.
- 2E. Mayer's Mucicarmine stain for mucin.
- 2F. Mounting media.
- 2G. Micro anatomical fixatives.

(5×7 = 35 marks)

3. Write short notes on:

- 3A. Natural dyes.
- 3B. Sudan III staining technique.
- 3C. Mounting of stained tissue.
- 3D. Clearing.
- 3E. Mordants.

(3×5 = 15 marks)



MANIPAL UNIVERSITY

THIRD YEAR B. Sc. M.L.T. DEGREE EXAMINATION – JUNE 2011

SUBJECT: CYTOLOGY AND CYTOGENETICS
(COMMON FOR BOTH OLD AND NEW REGULATION)

Thursday, June 09, 2011

Time: 14:00-17:00 Hrs.

Max. Marks: 80

✍ Answer all questions. Draw diagram if necessary.

- 1A. Explain 1 about cytology of normal urine.
1B. Write in detail about different types of epithelia

(15×2 = 30 marks)

2. Write note on:

- 2A. Sex chromosome abnormalities.
2B. FNAC.
2C. Staging and grading of tumor.
2D. G-Banding technique.
2E. Histocytes.
2F. Collection of sputum.
2G. Stratified squamous epithelia.

(5×7 = 35 marks)

3. Write briefly on:

- 3A. PAS stain.
3B. Ayer's spatula.
3C. Bluing solutions.
3D. Mayer's albumin.
3E. Charcot-Leyden crystal.

(3×5 = 15 marks)



MANIPAL UNIVERSITY**THIRD YEAR B. Sc. M.L.T. DEGREE EXAMINATION – JUNE 2011**

**SUBJECT: GENERAL BACTERIOLOGY, IMMUNOLOGY AND SYSTEMIC BACTERIOLOGY
(NEW REGULATION)**

Saturday, June 11, 2011

Time: 14:00-17:00 Hrs.

Max. Marks: 80

✍ **Answer the following questions.**

1. Enumerate the methods of moist heat sterilization based on holding temperature. Explain autoclaving in detail with a note on sterilization controls for it.

(15 marks)

2. Explain the pathogenicity and laboratory diagnosis of *Mycobacterium tuberculosis*. Add a note on its immunoprophylaxis.

(15 marks)

3. Write briefly on:

3A. Laboratory diagnosis of leptospirosis.

3B. Bacterial cell wall.

3C. Investigation of hospital acquired infections.

3D. Pathogenesis of cholera.

3E. Delayed type hypersensitivity.

(7×5 = 35 marks)

4. Short notes:

4A. Koch's postulates.

4B. Bacterial plasmids.

4C. Types of vaccines with one example for each.

4D. Principle of CFT.

4E. Nagler's test.

(3×5 = 15 marks)



MANIPAL UNIVERSITY

THIRD YEAR B. Sc. M.L.T. DEGREE EXAMINATION – JUNE 2011

SUBJECT: BIostatISTICS (COMMON FOR BOTH OLD AND NEW REGULATION)

Tuesday, June 14, 2011

Time: 14:00-17:00 Hrs.

Max. Marks: 80

- 1A. State the functions and limitations of statistics.
- 1B. Explain the characteristics of ordinal scale of measurement. Give two examples for the same.
(5+(3+2) = 10 marks)
- 2A. Distinguish between discrete and continuous variable with one example each.
- 2B. Define simple random sampling. State the advantages of sampling over census.
(5+5 = 10 marks)
- 3A. Differentiate inclusive and exclusive type class intervals with example.
- 3B. When do you choose pie diagram to represent the data? List the difference between histogram and bar diagram.
(5+(2+3) = 10 marks)
- 4A. Define inter-quartile range. State the qualities of a good measure of variation.
- 4B. What do you mean by central tendency?
Followings are length in inches of 10 babies:
Length in inches: 21, 25, 23, 19, 20, 24, 18, 22, 23, 21, 24
Compute mean and median.
(1+4)+(1+2+2) = 10 marks)
- 5A. Mean of a distribution is 50 and standard deviation is 3.
In a sample of 1000 observations, assuming Normality estimate the number of observations
i) less than 47 ii) between 47 and 56
- 5B. State the advantages of scatter diagram in the study of Correlation.
(5+5 = 10 marks)
- 6A. List any four sources of health information system. Enumerate the uses of health information system.
- 6B. Explain the terms incidence and prevalence with example.
(3+2)+5 = 10 marks)
- 7A. Define Validity. Explain the meaning of any one type of validity.
- 7B. Define Crude Birth rate. What are its uses and limitations?
(2+3)+5 = 10 marks)
8. State the aims of epidemiology. Discuss the usefulness and limitations of Cross-sectional studies.
(3+3+4 = 10 marks)



MANIPAL UNIVERSITY

THIRD YEAR B. Sc. M.L.T. DEGREE EXAMINATION – JUNE 2011

SUBJECT: MYCOLOGY AND VIROLOGY

(OLD REGULATION)

Thursday, June 16, 2011

Time: 14:00-17:00 Hrs.

Max. Marks: 80

✍ **Answer all questions. Draw diagrams if necessary.**

- 1A. Elaborate on Cutaneous mycoses and its Laboratory diagnosis.
1B. Discuss the transportation and processing of virological specimens.

(15×2 = 30 marks)

2. Write detailed notes on:

- 2A. KOH preparation.
2B. Varicella zoster virus.
2C. Histoplasmosis.
2D. ELISA.
2E. Sugar assimilation test.
2F. Interferons.
2G. Scotch tape preparation.

(5×7 = 35 marks)

3. Write short notes on:

- 3A. Rapid growers.
3B. Viral transport medias.
3C. Superficial mycoses.
3D. Papova virus.
3E. Continuous cell lines.

(3×5 = 15 marks)



MANIPAL UNIVERSITY**THIRD YEAR B. Sc. M.L.T. DEGREE EXAMINATION – JUNE 2011****SUBJECT: MYCOLOGY, VIROLOGY AND PARASITOLOGY****(NEW REGULATION)**

Thursday, June 16, 2011

Time: 14:00-17:00 Hrs.

Max. Marks: 80

✍ Answer all Questions. Draw diagrams if necessary.

1. Discuss about the immunological techniques for the diagnosis of viral disorders. (15 marks)
2. Explain the pathogenesis and lab diagnosis of hook worm infection. (15 marks)
3. **Write detailed notes on the following:**
 - 3A. Candidiasis.
 - 3B. *Ascaris lumbricoides*.
 - 3C. Dermatophytes.
 - 3D. *Entamoeba histolytica*.
 - 3E. General features of cestodes.
 - 3F. Sporotrichosis.
 - 3G. *Plasmodium falciparum*.(5×7 = 35 marks)
4. **Write short notes on the following:**
 - 4A. Microfilaria.
 - 4B. *Giardia lamblia*.
 - 4C. *Cryptococcus neoformans*.
 - 4D. *Aspergillus*.
 - 4E. *Leishmania*.(3×5 = 15 marks)

