Reg. No.										

MANIPAL UNIVERSITY

THIRD YEAR B. Sc. M.L.T. DEGREE EXAMINATION – JUNE 2007

SUBJECT: CYTOLOGY AND CYTOGENETICS

Friday, June 15, 2007

Time: 3 Hrs. Max. Marks: 80

Answer ALL questions.

1A. Explain in detail about karyotyping and classify human chromosome.

1B. Write in detail about cytology of sputum.

(15×2 = 30 marks)

2. Write notes on:

2A. Grading and staging of cancer.

2B. Histocytes.

2C. Heterochromatin.

2D. Difference between normal and malignant cell.

2E. Stratified epithelium.

2F. Cytocentrifuge preparation.

2G. Preservation of fluid specimens.

(5×7 = 35 marks)

3. Write briefly on:

3A. Down syndrome.

3B. Carbowax fixative.

3C. Ayer's spatula.

3D. Collection of sputum for cytology.

3E. Adhesives used in cytology.

(3×5 = 15 marks)

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MANIPAL UNIVERSITY

THIRD YEAR B. Sc. M.L.T. DEGREE EXAMINATION – JUNE 2007

SUBJECT: DIAGNOSTIC BACTERIOLOGY, PARASITOLOGY AND IMMUNOLOGY

Saturday, June 16, 2007

Time: 3 Hrs. Max. Marks: 80

Answer ALL questions.

1. Describe the life cycle and laboratory diagnosis of malaria.

(7+8 = 15 marks)

2. Define and classify immunity. Discuss innate immunity.

(2+3+10 = 15 marks)

3. Write short essay on:

3A. Autoclave

3B. Amoebic dysentery

3C. Morphological classification of bacteria

3D. Type I hypersensitivity reaction

3E. Neisseria gonorrhoeae

3F. Blood culture

3G. Nagler's reaction

(5×7 = 35 marks)

4. Write short notes on:

4A. Cell wall of gram negative bacteria

4B. Contributions of Louis Pasteur to medicine

4C. Isospora belli

4D. IgG

4E. Risk factors of nosocomial infection.

(3×5 = 15 marks)

Reg. No.										

MANIPAL UNIVERSITY

THIRD YEAR B. Sc. M.L.T. DEGREE EXAMINATION – JUNE 2007

SUBJECT: MYCOLOGY AND VIROLOGY

Monday, June 18, 2007

Time: 3 Hrs. Max. Marks: 80

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

1A. Elaborate on Microscopic examination methods in fungal infections.

1B. Discuss the stages of viral multiplication in detail.

(15×2 = 30 marks)

2. Write detailed notes on:

2A. Mycetomas.

2B. AIDS.

2C. India ink preparation.

2D. Antirabic non neural vaccines.

2E. Aspergilosis.

2F. Cytomegalo virus.

2G. Hair perforation test.

(5×7 = 35 marks)

3. Write Short notes on:

3A. Explant cultures.

3B. Oppurtunistic fungi.

3C. Papova virus.

3D. BHIA.

3E. Cytopathic effect.

(3×5 = 15 marks)

Reg. No.										

MANIPAL UNIVERSITY

THIRD YEAR B. Sc. M.L.T. DEGREE EXAMINATION – JUNE 2007

SUBJECT: BIOSTATISTICS

Tuesday, June 19, 2007

Time: 3 Hrs. Max. Marks: 80

✍ **Answer ALL the questions.**

1A. Discuss the role of biostatistics in health care delivery system.

1B. Enumerate the steps involved in a research process.

(5+5 = 10 marks)

2. Define sampling. What are the reasons for sampling? Briefly discuss the various types of probability sampling methods.

(1+2+7 = 10 marks)

3. The following is the data on the age at onset of a neurological disability of 10 people aged 50 years and above.

52, 60, 68, 70, 55, 63, 72, 68, 59, 55

Compute the mean, median, mode and standard deviation.

(3+2+1+4 = 10 marks)

4. Define health information system. What are its uses? Describe the sources of health information system.

(1+2+7 = 10 marks)

5. Write short essays on:

5A. Scales of measurement.

5B. Role of diagrammatic presentation of data.

5C. Scatter diagram.

5D. Skewness and Kurtosis.

5E. Normal distribution.

5F. Descriptive epidemiological methods.

5G. Characteristics of research hypothesis.

5H. Mortality and morbidity statistics.

(5×8 = 40 marks)