MANIPAL UNIVERSITY

FIRST TERM B.P.T. (BRIDGE PROGRAM) EXAMINATION – JANUARY 2011

SUBJECT: BIOCHEMISTRY

Monday, January 03, 2011

Time: 10:00-11:30 Hrs.   Max. Marks: 40

✍ **Answer ALL questions:**

✍ **Draw diagrams and flow charts wherever appropriate.**

1. Define glycolysis and write the reactions of aerobic glycolysis.

(8 marks)

2. Write the reactions of ketogenesis. Write a note on ketosis.

(6 marks)

3. **Answer the following:**

3A. With the help of a diagram explain the structure of DNA.

3B. Classify proteins based on composition giving suitable examples.

3C. Describe the process of digestion of carbohydrates.

3D. Write an account of biochemical function and name the deficiency manifestations of vitamin D.

(4×4 = 16 marks)

4. **Explain the following:**

4A. Basal metabolic rate.

4B. Steatorrhoea.

4C. Oxidative phosphorylation.

4D. Dietary fibres.

4E. Transamination reaction.

(2×5 = 10 marks)

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FIRST TERM B.P.T. (BRIDGE PROGRAM) EXAMINATION – JANUARY 2011

SUBJECT: SOCIAL SCIENCE AND PREVENTIVE MEDICINE

Wednesday, January 05, 2011

Time: 10:00-13:00 Hrs.   Max. Marks: 80

✍ Answer SECTION 'A' and SECTION 'B' in TWO separate answer books.

SECTION 'A': PREVENTIVE MEDICINE : 40 MARKS

1A. Explain what is meant by the term 'Chain of infection'.

1B. List the 'DIRECT' modes of transmission of diseases, with an example for each.

(5+5 = 10 marks)

2.   **Short notes:**

2A. Oral Polio Vaccine (OPV).

2B. Prevention of Protein Energy Malnutrition (PEM).

2C. Describe the prevention of type 2 diabetes mellitus at various levels.

2D. Epidemiological determinants of blindness.

2E. Explain the various methods of treatment and disposal of health-care waste.

2F. Disaster response.

(5×6 = 30 marks)

SECTION 'B': SOCIAL SCIENCE : 40 MARKS

3.   Define the concept of Social groups. Explain the influence of formal and informal groups on health and sickness.

(2+8 = 10 marks)

4.   What is culture? Discuss the impact of culture on human behavior.

(2+8 = 10 marks)

5.   What is Caste? Explain the features of modern Caste system.

(2+8 = 10 marks)

6.   **Write Short notes on the following:**

6A. Problems of Women in employment.

6B. Social security measures for the disabled.

(5+5 = 10 marks)

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FIRST TERM B.P.T. (BRIDGE PROGRAM) EXAMINATION – JANUARY 2011

SUBJECT: RESEARCH FOR PHYSIOTHERAPISTS

Friday, January 07, 2011

Time: 10:00-13:00 Hrs.
Max. Marks: 80

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1.   **Define the following:**

1A.   Prevalence rate.

1B.   Incidence rate.

1C.   Maternal mortality rate.

1D.   Post neonatal mortality rate.

1E.   Gross reproduction rate.

(2×5 = 10 marks)

2A.   What is meant by dispersion? Briefly explain the different measures of dispersion.

2B.   The weights of 14 patients (in Kilogram) admitted in ICU of a particular hospital is given below. Obtain the quartile deviation and inter quartile range.

56, 67, 58, 70, 71, 65, 61, 49, 68, 59, 60, 56, 55, 63

(6+4 = 10 marks)

3A.   Briefly explain normal distribution with the help of a neat diagram.

3B.   The average length of stay in a hospital of a certain type of patients is 30 days with a standard deviation of 8 days. If it is reasonable to assume an approximately normal distribution of lengths of stay, find the probability that a randomly selected patient from this group will have a length of stay:

i)   Between 22 and 46 days

ii)   Less than 14 days

(5+5 = 10 marks)

4.   What is meant by epidemiology? Briefly discuss various study designs used in descriptive epidemiology with its merits and demerits.

(10 marks)

5A.   Discuss the concept of probability sampling techniques? Explain stratified sampling technique with the help of an example.

5B.   What are the advantages of probability sampling schemes over non-probability sampling?

(2+5+3 = 10 marks)

6. What is meant by research? Briefly discuss different steps in a research process.

(5 marks)

7. **Write short notes on:**

7A. Sources of health information system

7B. Correlation

7C. Scales of measurements

7D. Reliability

(5×4 = 20 marks)

8. The following table gives the age of the 250 staffs working in an institution. Present the data graphically by a frequency polygon on a histogram.

Age group	20-25	25-30	30-35	35-40	40-45	45-50	50-55
Frequency	12	42	48	53	46	27	22

(5 marks)

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FIRST TERM B.P.T. (BRIDGE PROGRAM) EXAMINATION – JANUARY 2011

SUBJECT: ETHICS/ADMINISTRATION AND TEACHING SKILLS

Monday, January 10, 2011

Time: 10:00-11:30 Hrs.   Max. Marks: 40

✍ **Answer all questions.**

PART – I

1. **Essay Questions:**

   Discuss the ethical issues in academics.

   (10 marks)

PART – II

2. **Short Notes:**

2A. Discuss the steps involved in equipment procurement for a physiotherapy department.

2B. Explain in detail about the two methods of promoting good public relations in a hospital.

2C. Discuss the ethical issues involved in private practice.

2D. Short notes on types of documentation.

   (5×4 = 20 marks)

PART – III

3. **Briefly answer the questions:**

3A. Medical negligence.

3B. Name two organizations that fund research works.

3C. Name the modes of public education.

3D. Common complaints faced by the hospital due to poor public relation.

3E. Therapists risks due to home visits.

   (2×5 = 10 marks)

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