INSTITUTE OF INDIGENOUS MEDICINE, UNIVERSITY OF COLOMBO, RAJAGIRIYA

BUMS LEVEL IV – SECOND SEMESTER EXAMINATION – MAY 2016

PRINCIPLES OF GENETICS, MOLECULAR BIOLOGY AND BIO TECHNOLOGY

COURSE CODE – AS 4106

Time: 1 1/2 hour
20 .07.2016
9.45 a.m. – 11.15 a.m

Index No | |

Answer all questions.

Part I - Structured Questions

01.

A. I. What is double stranded RNA? (02 Marks)

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II. Give an example for the above RNA? (01 Mark)

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III. Name three major types of RNAs and write their functions? (03 Marks)

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B. I. List three major differences between DNA and RNA a? (03 Marks)

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II. What is DNA replication? (02 Marks)

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III. Why it is important in living organisms? (02 Marks)

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C. I. What is **PCR**? (02 Marks)

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II. Write three clinical importance of PCR in medical practice? (02 Marks)

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III. List 5 sources which are routinely used to collect DNA for molecular analysis? (03 Marks)

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02.

A. I. What is genetic testing? (02 Marks)

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II. Name three major types of genetic testing? (03 Marks)

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III. Give two examples for above each type? (03 Marks)

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B. I. What are the four specific types of genetic testing? (04 Marks)

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II. Give single example for above each type? (02 Marks)

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C. I. What is genetic counseling? (02 Marks)

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II. What are the major four things will be involved in genetic counseling process? (04 Marks)

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Part II – Essay Questions

01. A. What is sex linked recessive disease? (04 Marks)
    B. Give 5 examples for sex linked recessive disease (06 Marks)
    C. Draw and explain a sex linked recessive pedigree (10 Marks)

02. Write notes on the followings
    A. Translation (05 Marks)
    B. Western Blotting (05 Marks)
    C. Molecular markers (05 Marks)
    D. Normal Serum protein electrophoresis (05 Marks)