

3162 - on Nov. 15

The Open university of Sri Lanka
Foundation Programme in Science -2006/2007
Level 1 - Final Examination
Course Code - PSF 1306 /PSE 1306

Date - 2006 . 10 . 30

Time - 9.30 - 12.00 noon

The Question paper consists of **two parts - I and II**

Answer all questions in **part I** and **any three (03)** questions from **Part II**

- Answers for the Multiple Choice Questions in **Part I** should be provided by placing a "X" in the relevant cage in the MCQ box provided.
- Answers for the **structured essay question in part I** should be written in the **space provided in the question paper.**
- **At the end of the examination submit all MCQ questions with your answer script.**

Index Number

MCQ BOX

Q. NO.	a	b	c	d
1.1				
1.2				
1.3				
1.4				
1.5				
1.6				
1.7				
1.8				
1.9				
1.10				
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1.19				
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of
1.18 The end product of Glycolysis, is

- (a) fructose 1,6 diphosphate
- (b) glucose 6 phosphate
- (c) glyceraldehyde
- (d) pyruvate

1.19 What is a Nucleoside

- (a) A base + A sugar + A phosphate
- (b) A base + A sugar
- (c) A base + A phosphate
- (d) A sugar + A phosphate

1.20 During meiosis the chromosomes complete pairing and twisting during the

- (a) Leptotene stage
- (b) Zygotene stage
- (c) Pachytene stage
- (a) Diplotene stage



1 - B

i) What is meant by the term "digestion of food"

ii) Name the two different types of digestion that occur in animals.

iii) Name the parts of the human alimentary canal.

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- iv) Name the parts of the stomach in ruminants
Explain how it is different from that of man.

- v) List the functions of HCl in the human stomach ?

- vi) Explain the four functions of bile in man .

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- vii) Name the enzymes involved in digestion of the following food types in the human alimentary canal.

Carbohydrates -----

Protein -----

Lipid -----

- viii) Name two regions in the human alimentary canal where carbohydrate Digestion occurs .

- ix) Describe the process of digestion of carbohydrates in the two regions mentioned in (viii) above .

PART II

Answer any three (03) questions

- (2) (a) Compare and contrast a prokaryotic cell and a eukaryotic cell.
(b) Briefly explain the process of mitosis that occurs in an animal cell.
- 3.) (a) Explain the term "reproduction" ?
(b) Describe the main differences between asexual reproduction and sexual reproduction ?
(c) Outline the Asexual reproductive methods found in invertebrates.
- 4) (a) Draw a fully labeled diagram of a human nephron and describe its structure .
(b) Briefly explain the process of urine formation in man
(c) List the functions of the human kidney
- 5) (a) Briefly explain "origin of life" ?
(b) Describe the structure of DNA proposed by Watson and Crick
- 6) Write short notes on **any three (03)** of the following
 - a) Spermatogenesis
 - b) Binomial Nomenclature
 - c) Respiratory surfaces of invertebrate animals
 - d) Mitochondria