

Following Paper ID and Roll No. to be filled in your Answer Book.

PAPER ID:2102

Roll
No.

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BDS Examination Dec. 2016
(First Professional)

GENERAL HUMAN PHYSIOLOGY

Time : 1.5 Hours]

[Maximum Marks : 35

Note :- Attempt all questions.

PART A

1. Fill in the blank : 0.5×10=5

- (a) Hypermetropia is corrected by wearing lenses.
- (b) Pernicious anaemua is caused by the deficiency of.....
- (c) Calcitonis is secreted from..... gland.
- (d) With heart rate 100/min., the duration of cardiac cycle is seconds.
- (e) Surface tension of the alveolan fluid is low due to the presence of

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Tick the correct answer :

- (f) Mass peristalsis is the movement of :
- Stomach
 - Large intestine
 - Oesophagus
 - Small intestine
- (g) Centrosome is absent in :
- Hepatocyte
 - Muscle cell
 - Parietal cell of gastric mucosa
 - Nerve cell
- (h) Cyanosis is caused by :
- Increased concentration of reduced hemoglobin
 - Decreased RBC count
 - Decreased haemoglobin concentration
 - Decreased leucocyte count

- (i) Counter-current multiplier of the kidney is :
- Vasarecta
 - Loop of Henle
 - J.G. apparatus
 - Glomerulus
- (j) Parkinsonism is disorder of :
- Cerebellum
 - Limbic system
 - Basal ganglia
 - Thalamus
2. Write in short : $2 \times 5 = 10$
- Structure and functions of platelets.
 - Menstrual cycle.
3. Comment upon the following : $2 \times 5 = 10$
- Transport of CO_2 in the blood.
 - Active membrane transport.
4. Discuss composition, functions, mechanism and regulation of Gastric juice secretion. 10

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PART B

Note: (i) All questions are compulsory.
 (ii) Draw neat, well labelled flow-diagram or flow-chart whenever necessary.

1. Tick the correct answer : 5

(a) Phenylketonuria is caused by absence of which enzyme :

- (i) Tyrosinase
- (ii) Carboxylase
- (iii) Phenyl alanine hydroxylase
- (iv) Trans aminase.

(b) Which one of the following is an essential fatty acid :

- (i) Palmitic acid
- (ii) Unolenic acid
- (iii) Oleic acid
- (iv) Acetic acid

(c) The Extra cellular matrix are rich in :

- (i) Insulin
- (ii) Sucrose

(iii) Glycosaminoglycans (GAGs)

(iv) Chitin

(d) Which of the following exist as Zwitter Ions :

(i) Fatty acid

(ii) Amino acid

(iii) Glycerol

(iv) Glucose

Write True / False :

(e) DNA dependent RNA polymerase is involved in transcription.

(f) Insulin is a hormone which is secreted under conditions of low blood glucose.

(g) Pyruvate carboxylase is one of the key enzyme of gluconeogenesis.

Fill in the blank :

(h) Sulphonamides inhibit PABA for folic acid synthesis in bacteria.

(i) 3 Ds of Pellagra are, and

(j) Normal level of blood glucose after over night

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fast in healthy individuals is

2. (a) How ammonia is detoxified in the body? 5
(b) What is uncompetitive inhibition? Provide one example of it. What are multi enzyme complexes? Provide an example. 5
3. Write short notes on : $2 \times 5 = 10$
(a) Vitamin C and Scurvey
(b) What is gluconeogenesis? What are its substrates, key enzymes and its significance.
4. Why HMP pathway is called shunt? Provide a flow diagram in brief. Indicate key enzymes. Write down its significance in detail. 10
