

4622

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(c) Draw a well labelled diagram of

(i) Different types of leukocytes

(ii) Pancreas

(5,5,6)

(200)

[This question paper contains 8 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 4622

J

Unique Paper Code : 3184002003

Name of the Paper : GE: Understanding the Human
Body Systems

Name of the Course : **Common Program Group
(B.Sc. (H) Biomedical
Sciences)**

Semester : II/IV (NEP-UGCF)

Duration : 3 Hours

Maximum Marks : 90

Instructions for Candidates

1. Write your Roll. No. on the top immediately on receipt of this question paper.
2. Attempt five questions in all.
3. **Question No. 1** is compulsory.

P.T.O.

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4. Subparts of the questions should be attempted together.

5. Draw illustrations or diagrams wherever necessary.

1. (a) Differentiate between (Any four) (2×4=8)

(i) Sagittal and Coronal Plane .

(ii) Internal and External respiration

(iii) Action Potential and Graded Potential

(iv) Addison's disease and Cushing syndrome

(v) Fast twitch and Slow twitch muscle fibres

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(i) End of menstruation

(ii) The phase of heart contraction

(iii) Target organ of FSH

(iv) Tissue stationed monocytes

(v) Decrease in the number of RBCs

(vi) Cardiac rate slower than 60 beats per minute
(5,5,6)

6. (a) What is the principle of the ECG ? What does a normal ECG look like? What are its clinical applications?

(b) Explain and illustrate how spermatogenesis takes place.

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(i) Meissner's corpuscles

(ii) Osteocytes

(iii) Para follicular cells

(iv) Macula densa

(v) Bicuspid valve

(vi) Corpus callosum

(5,5,6)

5. (a) Define negative feedback and explain how it contributes to homeostasis.

(b) Describe the layers of epidermis and the cells that compose them.

(c) Give one word for the following

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(b) Define (Any six)

(2×6=12)

(i) Nerve

(ii) Merocrine

(iii) Muscle end plate

(iv) Vital capacity

(v) Dandruff

(vi) Obligatory water loss

(vii) Menarche

(viii) Brush border

P.T.O.

(c) State True/False and justify (Any three)

(2X3=6)

(i) A person lying face down would be in prone position

(ii) Individuals with dark skin colour have more melanocytes in their skin.

(iii) Inulin clearance is a measure of GFR

(iv) The left cerebral hemisphere controls the left side of the body

2. Write short notes on:

(4×4=16)

(i) Electrical conduction in heart

(ii) General features of epithelial tissue

(iii) Frank Starling law

(iv) Intrinsic pathway of clotting

3. (a) Mention briefly the functions and chemical nature of hormones secreted from anterior pituitary gland.

(b) How do olfactory receptors and gustatory receptor cells differ in structure and function?

(c) How are proteins and carbohydrates digested?

(5,5,6)

4. (a) Describe how PCT, loop of Henle and DCT absorption helps in forming the urine which is finally discharged into urinary bladder.

(b) Name the four layers of the gastrointestinal tract, and describe their structure and functions.

(c) Give the location and function of