

GREENLAWNS SCHOOL, WORLI
FINAL EXAMINATION: 2016-17
BIOLOGY

Std: IX

Marks: 80

Date: / /2017

Time: 2 hrs

Answer to this paper must be written on the paper provided separately. You will **not** be allowed to write during the first **10** minutes. This time is to be spent in reading the Question paper. **Section I** is compulsory. Attempt **any four** questions from **Section II**.

SECTION I (40 Marks)

Attempt all questions from this Section

Question 1

(a) Name the following: [5]

- i. The suicide bag of the cell.
- ii. Outer region of dermis raised into numerous small processes.
- iii. The protective covering of brain.
- iv. Bone-like structure covering and fixing the root in position.
- v. The first produced antibiotic.

(b) Differentiate on the basis of what is indicated in brackets: [5]

- i. Prokaryotic and eukaryotic cell (meaning)
- ii. Sweat and sebum (function)
- iii. Pivot joint and hinge joint (example)
- iv. Submandibular and sublingual gland (location)
- v. Serum and vaccine (definition)

(c) Fill in the blanks by using suitable words: [5]

- i. The hormone _____ was the first substance produced by E.coli bacteria.
- ii. _____ is the conversion of the absorbed digested food into body material.
- iii. _____ bind the bones together.
- iv. Primarily the skin is an almost _____ barrier.
- v. Some colouring pigments which remain dissolved in the cell sap are called _____

(d) Explain the following terms: [5]

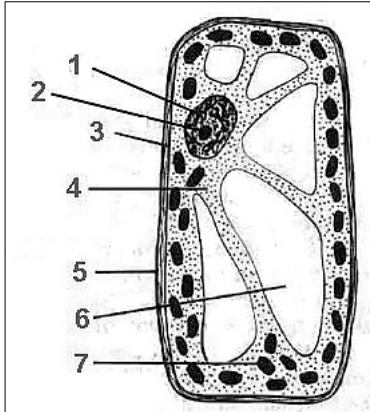
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|----------------------|----------------|
| i. Chromoplasts | iv. Girdles |
| ii. Vasoconstriction | v. Peristalsis |
| iii. Botulism | |

(e) State the role of the following: [5]

- | | |
|-------------------------|---------------------------|
| i. Golgi body | iv. Ptyalin |
| ii. Synovial fluid | v. Subcutaneous fat layer |
| iii. Rhizobium bacteria | |

- (f) Give scientific reasons for the following: [5]
- In the female the pelvis is wider and trough shaped.
 - The liver is an important organ in post-mortem examination.
 - Sweat pores are more numerous on the palms.
 - Some bacteria possess one or more whip-like flagella.
 - Size and shape of the cell depends upon its function.

(g) The figure below shows a cell. Observe and answer the questions:



- Label the parts 2, 4 and 6. [1½]
- What is the function of parts 2 and 6. [2]
- Why is part 1 the most important part of the cell? [1]
- Give one difference between parts 3 and 5. [1]
- Name the plastid 7 and the pigment present in it. [1]
- Name a structure absent in this cell but present in another kind of cell. [½]

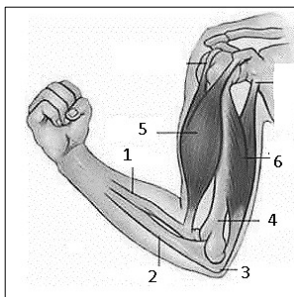
(h) Draw the following shapes of bacteria – streptococcus, vibrio and bacillus. [3]

SECTION II (40 Marks)

Attempt any **four** questions from this section

Question 2

(a) The figure here represents the forearm of man. Answer these questions:



- Label the parts 1 to 6. [3]
- What are the muscles 5 and 6 called? [1]
- What is the function of part 3? [1]

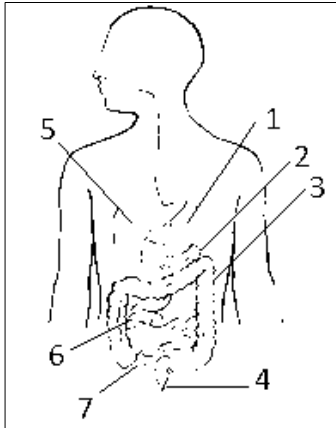
(b) The liver is the largest gland of the body weighing about 1500 g on an average.

- Where the liver is exactly located? [1]
- Name the yellowish green watery fluid produced in liver. [½]
- Where is the above liquid temporarily stored? [½]

- iv. What gives the fluid its colour? [1]
- v. Give the overall action of bile on food. [1]
- vi. Give any one function of liver other than production of fluid. [1]

Question 3

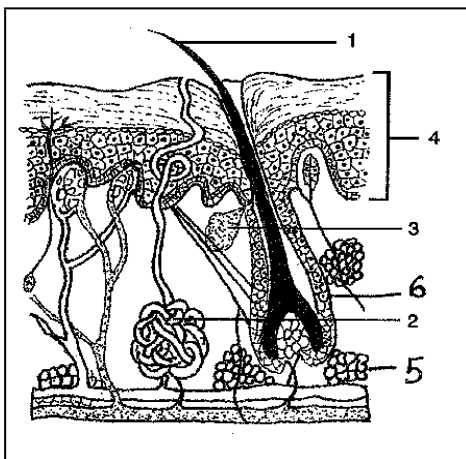
Observe the alimentary canal given below and answer the questions that follow:



- i. Label parts 1 to 7. [3½]
- ii. List the three enzymatic action of the juice [3]
given out by 2.
- iii. Name the sub-regions of part 6. [1½]
- iv. State two functions of the acid secreted by [2]
part 2.

Question 4

Given below is a diagram of section of human skin. Observe and answer the questions that follow:



- i. Label the parts 1, 2, 3, 5 and 6. [2½]
- ii. Name the three regions of part 4. [1½]
- iii. State the functions of these regions. [3]
- iv. What is goose flesh? [1]
- v. What is the cause for pimples? [1]
- vi. What causes graying of hair? [1]

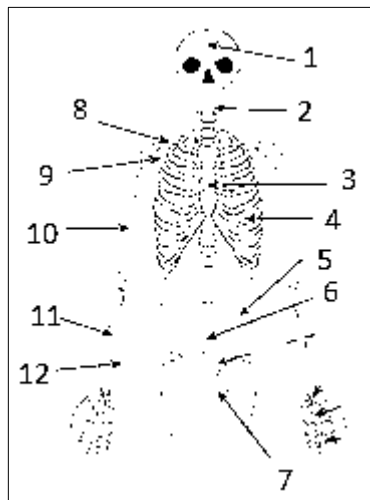
Question 5

(a) According to an estimate, there are more bacteria normally living on our skin than the total number of humans living on Earth.

- i. What is the average size of bacteria? [1]
- ii. How do bacteria obtain its nutrition? [2]
- iii. What type of reproduction is seen in bacteria? [$\frac{1}{2}$]
- iv. Draw a neat diagram to show reproduction in bacteria. [1]
- v. How fast do bacteria reproduce? [$\frac{1}{2}$]
- vi. Explain the advantage of spore formation in bacteria. [2]
- vii. Draw a neat diagram of a bacterial cell labelling any four parts. [3]

Question 6

Given below is a figure of human skeleton. Observe and answer the questions that follow:



- i. Label the parts 1 to 12 using scientific terms. [6]
- ii. Identify the joint present at 8. [1]
- iii. Name the parts in the hind limbs that correspond to parts 10, 11 and 12. [$1\frac{1}{2}$]
- iv. What are the finger bones called? [$\frac{1}{2}$]
- v. Why are floating ribs so called? [1]
