

GIRLS' HIGH SCHOOL AND COLLEGE, PRAYAGRAJ

WORKSHEET –NO-2

SESSION –2020-2021

CLASS- 9 A,B,C,D,E and F

SUBJECT -BIOLOGY

INSTRUCTIONS -Parents are expected to ensure that the student spends two days to read and understand the chapter. Student should refer to books of classes 6 ,7, and 8 for reference and also the following website and thereafter answer the given questions .

Books: Classes 6,7 8 . Class-9 ICSE Biology by V.B.Rastogi (Srijan publications) .

Website-byjus.com/ncert-solutions-class-9-science/chapter-5-fundamental-unit-of-life/.

Chapter- CELL-A unit of life.

Topic- Structural organisation of cell .

Question 1(a) Give one word.

- i) A membrane separating the nucleus from the cytoplasm.
- ii) Outer most layer in plant cell.
- iii) Tangled mass of thread- like structures inside the nucleus.
- iv) Cell organelle responsible for the release of energy in the form of ATP.
- v) A living substance of the cell bounded by plasma membrane.

Question.1 (b) Fill in the blanks .

- i) Vacuoles are bounded by a membrane known as\_\_\_\_\_ .
- ii) \_\_\_\_\_ are hereditary units.
- iii) Each nucleus has one dense , rounded\_\_\_\_\_ .
- iv) \_\_\_\_\_are called suicidal bags of cell.
- v)\_\_\_\_\_forms spindle fibres at the time of cell division.

Question 1(c) Match the column A with Column B

- | A                                   | B               |
|-------------------------------------|-----------------|
| (i) Power house of the cell         | a) Golgi bodies |
| (ii) Kitchen of the cell            | b) Ribosomes    |
| (iii) Protein factories of the cell | d) Mitochondria |
| (iv) Control centre of the cell     | e) Chloroplast  |
|                                     | f) Nucleus      |

Question 1(d) Choose the correct answer.

(i) The barrier between the protoplasm and the outer environment in the plant cell is

- a) Nuclear membrane
- b) Plasma membrane
- c) Tonoplast
- d) Cell Wall

(ii) Which one of the following belongs to prokaryotic category?

- a) Hydra
- b) Earthworm
- c) Bacteria
- d) Frog

(iii) Protein is synthesised by:

- a) Plastids
- b) Golgi Apparatus
- c) Ribosomes
- d) Mitochondria

(iv) Network of endoplasmic reticulum is found in

- a) Nucleus
- b) Cytoplasm
- c) Chromosomes
- d) Nucleolus

(v) A plant cell differs from an animal cell in the absence of

- a) Endoplasmic Reticulum
- b) Centrosomes
- c) Nuclear Membrane
- d) Tonoplast

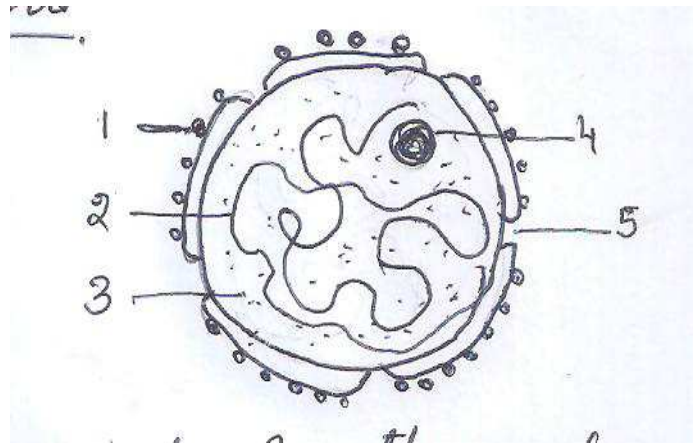
Question 1(e) Write True or False

(i) The cell wall of a plant cell is a living structure.

(ii) Smooth endoplasmic reticulum does not bear ribosomes.

- (iii) Plasma Membrane is the outermost covering of the plant cell.
- (iv) Chromoplasts give characteristic colour to the flowers and fruits.
- (v) Each human cell has 46 chromosomes in its nucleus.

Question 2) Answer the following questions



- (i) Who discovered the nucleus ?
- (ii) Write the functions of nucleus.
- (iii) Label the parts numbered 1-5.

Question 3)

- (i) Name the different types of plastids.
- (ii) Give one function of each type.
- (iii) Name the colourless plastid .

Question 4)

- (i) Mention three features found only in plant cells and one found only in animal cells.
- (ii) Draw a labelled diagram to show the structure of a plant cell and animal cell.

Question 5) Give one significant function of the following.

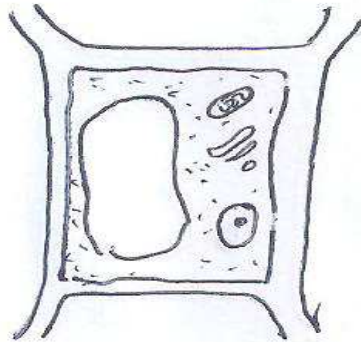
- (i) Cell wall.
- (ii) Cell membrane
- (iii) Mitochondria
- (iv) Chloroplast
- (v) Lysosomes
- (vi) Centrosome
- (vii) Ribosomes.

(viii) Golgi Bodies

(ix) Endoplasmic Reticulum

(x) Nucleus

Question 6)



(i) Is this a plant cell or animal cell.

(ii) Label the following parts in it

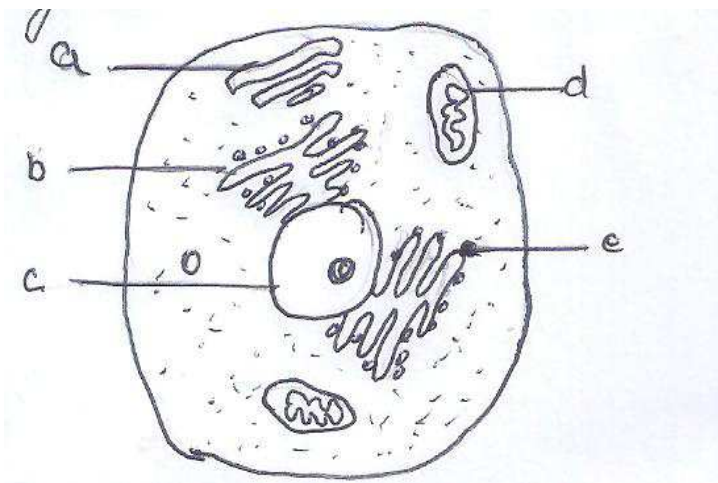
(a) Nucleus

(b) Plasma Membrane

(c) Vacuole

(d) Cytoplasm

Question 7)



(i) Name the parts labelled a,b,c ,d and e.

(ii) Which of these parts help(s) in protein synthesis?

Question.8)

(1) Differentiate between the following on the basis of what is given in the brackets. . 4/5

i) Prokaryotic cell and eukaryotic cell.( Cell organisation)

ii) Nucleus and Nucleolus( Location )

(2)Define the following.

(i) Chromosomes

(ii) Nucleoplasm

(iii) Cytoplasm

Question 9)

(i) Write the general characteristics of prokaryotic cells ?

(ii) Draw a neat and well labelled diagram of a prokaryotic cell .

The End.

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