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SARDAR PATEL UNIVERSITY
M. Sc (Int.) Biotechnology Second Semester Examination April-2016
IGBT-IInd SEMESTER
PS02CIGB05 – CELL BIOLOGY
Wednesday, 6th April, 2016
Time: 10:30 a.m. to 1:30p.m.

Total Marks: 70

- Q.1 Fill in the blanks by choosing appropriate option. (08)**
- (a) The cell was seen for the first time and coined the term "cell" by.....
(a) A. V. leeuwenhoek (b) Robert Hook (c) Robert White (d) Robert Brow
 - (b) Cell wall present in
(a)Animal cell (b)plant cell (c) mammalian cell (d) all of them
 - (c) Cristae are present in
(a)Mitochondria (b) chloroplast (c) Ribosome (d) none of them
 - (d) Name of the cell organelle involved in "Photosynthesis"
(a)Mitochondria (b) chloroplast (c) Ribosome (d) none of them
 - (e) protein are present in microtubules
(a)Tubulin (b) Dentin (c) Vimentin (d) All of them
 - (f) Nucleus without nuclear membrane is called.....
(a)Nucleolus (b) Nucleoplasm (c)Protoplasm (d) Nucleiod
 - (g) Number of daughter cells produced as result of meiosis
(a)2 (b) 4 (c) 8 (d) 6
 - (h) Mitosis is also called as
(a) Multiplication division (b) reduction division (c) both of these (d) None of these
- Q.2 Answer the following in short.(Any SEVEN) (14)**
- (a) What is cell theory
 - (b) Draw an labeled the structure of Bacterial cell
 - (c) Enlist types and function of Lysosome
 - (d) Enlist function of Mitochondria
 - (e) Write function of Microtubules.
 - (f) Write a note on Centrioles and basal bodies.
 - (g) Differentiate mitosis from meiosis
 - (h) Write the significance of mitosis
 - (i) Draw and the label structure of Animal cell.

(P.T.O)

- Q.3 (a) Draw and the label structure of Plant cell. Add a note on its salient features. (06)
(b) What is cell biology? Write the inter relationship of cell biology with other branches of sciences (06)
- OR**
- (b) Write an essay on plasma membrane models with diagram. (06)
- Q.4 (a) With diagram explain the structure and function of chloroplast (06)
(b) Write a detailed note on Endoplasmic reticulum. (06)
- OR**
- (b) Write note on cell wall and its function (06)
- Q.5 (a) Write a note on intermediate filaments (06)
(b) Give a brief note on Cilia and flagella (06)
- OR**
- (b) Write a note on micro- filaments (06)
- Q.6 (a) Give detail note on Prophase-I of meiosis-I, Add note on signification (06)
(b) Define cell cycle. Briefly explain the events of cell cycle. (06)
- OR**
- (b) Give an account on mitosis with diagram. (06)

Best of Luck