

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-III (OLD) EXAMINATION – WINTER 2017****Subject Code:130402****Date:17/11/2017****Subject Name: Cell Biology****Time: 10:30 AM to 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1 (a) Describe in detail structure and functions of nucleus in eukaryotic cell. **07**

(b) Draw a labeled diagram of cell membrane with the physiological significances. **07**

Q.2 (a) Give definition of endospore. Write the process of endospore formation. **07**

(b) Write a brief account on evolution of cell. **07**

OR

(b) Draw a labeled diagram of animal cell. **07**

Q.3 (a) Differentiate prokaryotic and eukaryotic cell with labeled diagram. **10**

(b) Differentiate between capsule and slim layer. **04**

OR

Q.3 (a) Write a note on structural and functional aspect of glyoxysomes. **07**

(b) Draw the ultra structure of flagella with brief explanation. **07**

Q.4 (a) What are the component parts of mitochondria? Write about its functions also. **07**

(b) Elaborate types and structure of endoplasmic reticulum. **07**

OR

Q.4 (a) What are plastids? Explain their types and role in details. **07**

(b) How biogenesis of peroxisomes take place in a cell? **07**

Q.5 (a) Enlist and explain differences between prokaryotic and eukaryotic ribosomes. **07**

(b) Discuss types and functions of lysosome in biological system. **07**

OR

- Q.5 (a) Give a brief account on organization of eukaryotic chromosome. **07**
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- (b) What are the differences between Gram positive and Gram negative cell wall? **07**

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