

**F.Y.B.SC. SEM – I (2014 COURSE) : WINTER - 2017**  
**SUBJECT: ZOOLOGY: CELL BIOLOGY AND GENETICS (Z-12)**

Day : **Thursday**  
Date : **09/11/2017**

**W-2017-0596**

Time : **12.00 NOON TO 02.00 PM**  
Max. Marks : 40

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**N.B.:**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the **RIGHT** indicate full marks.
  - 3) Draw neat labeled diagrams **WHEREVER** necessary.
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**Q.1** Attempt any **TWO** of the following: **(10)**

- a) What are the ribosomes? Describe their functions.
- b) Explain the law of independent assortment with suitable example.
- c) Give an account on the chromosome with reference to ultrastructure and functions of chromosome.

**Q.2** Attempt any **TWO** of the following: **(10)**

- a) What is endoplasmic reticulum? Describe different types of endoplasmic reticulum.
- b) Describe the ultrastructure of mitochondria.
- c) Give detailed account of blood groups in man. Add a note on its inheritance.

**Q.3** Attempt any **TWO** of the following: **(10)**

- a) What is eugenics? Explain positive and negative eugenics.
- b) Describe Turner's syndrome.
- c) Describe ultrastructure of eukaryotic cells.

**Q.4** Attempt any **FIVE** of the following: **(10)**

- a) Write on co-dominance.
- b) Describe metacentric chromosome.
- c) What is phenotype?
- d) Write functions of nucleus.
- e) Give functions of golgi complex.
- f) Write functions of plasma membrane.
- g) Describe microfilaments.

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