

Seat No. : _____

ME-116

March-2019

B.Sc., Sem.-III (Repeater)

CC-202 : Biochemistry

Time : 2.30 Hours]

[Max. Marks : 70

- Instructions :**
- (1) Figures on the right indicate marks.
 - (2) **All** questions are compulsory.
 - (3) Draw figure wherever necessary.

1. (A) Discuss the technique of Cell Fractionation to separate Cell organelles in detail. **14**

OR

Answer the following :

- (i) Discuss the Functions of Plasma membrane. **7**
 - (ii) Draw and discuss the structure of Mitochondria. **7**
- (B) Answer the following (any **Four**) briefly : **4**
- (1) Write any one function of Ribosomes.
 - (2) State any difference between Prokaryotic and a Eukaryotic Cell.
 - (3) Draw the structure of Nucleus.
 - (4) Name the two types of Endoplasmic reticulum.
 - (5) State the role of Lysosomes.
 - (6) Name one Prokaryotic and one Eukaryotic cell.

2. (A) Discuss the functions of Muscles and explain the sliding filament theory. **14**

OR

Answer the following :

- (i) Explain Nerve conduction. **7**
 - (ii) Write a note on Bone mineralization. **7**
- (B) Answer the following (any **Four**) briefly : **4**
- (1) Draw the structure of a Nerve cell.
 - (2) Name any two Proteins present in Muscles.
 - (3) What is Reflex action ?
 - (4) Name any two factors affecting Bone remodeling.
 - (5) Name any one Neurotransmitter.
 - (6) Name the bone cells.

3. (A) Write a note on Thyroid hormones. 14
- OR**
- Answer the following :
- (i) Write the dietary Sources and role of Vitamin C in our body. 7
 - (ii) Discuss the physiological action of Insulin. 7
- (B) Answer the following (any **Three**) briefly : 3
- (1) Name the two mechanisms of hormone action.
 - (2) Write the deficiency disease of Vitamin B₁.
 - (3) Write the structure of Niacin.
 - (4) Name the coenzyme form of Folic acid.
 - (5) State any two rich dietary sources of Vitamin B₁₂.
4. (A) Discuss Blood Pressure and factors affecting it. 14
- OR**
- Answer the following :
- (i) Discuss the functions of Heart. 7
 - (ii) Write a brief note on ECG. 7
- (B) Answer the following (any **Three**) briefly : 3
- (1) Name the heart Sounds.
 - (2) Define Cardiac cycle time.
 - (3) What is Stroke volume?
 - (4) Name any two factors affecting Heart rate.
 - (5) Define an Artery.
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