

Reg. No. : .....

Name : .....

**Third Semester B.Sc. Degree Examination, October 2019**

**Career Related First Degree Programme Under CBCSS**

**2(a) – Botany and Biotechnology**

**Complementary Course: BB 1331**

**PHYSIOLOGICAL ASPECTS IN BIOCHEMISTRY**

**(2014 Admission Onwards)**

Time : 3 Hours

Max. Marks : 80

**SECTION – I**

Answer all questions

1. What is the functions of RBC?
2. How Iron is transported?
3. Name the blood forming organs.
4. What is the other name of Viamin K.
5. What is oxidation? How it is useful for detoxification?
6. What is Bohr effect?
7. Name the buffers present in blood.
8. What is NIDM?

9. State the functions of cortisol.
10. Name peptide hormones.

(10 × 1 = 10 Marks)

### SECTION – II

Answer any **eight** questions.

11. Write down the constituents of blood.
12. Write about erythropoiesis.
13. Write the functions of vitamin D.
14. What are the main constituents of urine?
15. What are the functions of carbonic anhydrase?
16. Define chloride shift.
17. Classify the types of jaundice.
18. What is the importance of BMI?
19. What are conjugation reactions? Give two examples?
20. What are the normal levels of blood glucose?
21. State the functions of GH.
22. How  $T_3$  differs from  $T_4$ ?

(8 × 2 = 16 Marks)

### SECTION – III

Answer any **six** questions.

23. Write the structure and functions of Hemoglobin.
24. Write about the absorption and metabolism of Iron.
25. Discuss the Detoxification process by oxidation and hydrolysis.

26. Write a note on obesity.
27. Explain the partial pressure of gases.
28. Write about acid base im balance.
29. Write the functions of thyroxine.
30. What are all the functions of estradiol?
31. Differentiate adrenalin and nor adrenalin with their functions.

**(6 × 4 = 24 Marks)**

#### SECTION – IV

Answer any **two** questions.

32. Write the chemical nature, sources, functions and deficiency of fat soluble vitamins.
33. Discuss about Liver function tests.
34. Write about hyper colesterolenia and Atherosclerosis.
35. Explain the transport and exchange of gases.

**(2 × 15 = 30 Marks)**

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**Third Semester B.Sc. Degree Examination, December 2016**  
**Career Related First Degree Programme under CBCSS**  
**Group 2(a) BOTANY AND BIOTECHNOLOGY**  
**Complementary Course**  
**BB 1331 – Physiological Aspects in Biochemistry**  
**(2014 Admission Onwards)**

Time : 3 Hours

Max. Marks : 80

**SECTION – I**

Answer **all** questions :

**(10×1=10 Marks)**

1. What is leucopoiesis ?
2. What are bile pigments ?
3. Which are the water soluble vitamins ?
4. Define vitamin.
5. Define BMR.
6. What is conjugation reaction ?
7. What is Chloride shift ?
8. Define Bohr effect.
9. What is obesity ?
10. What are functions of thyroxine ?



## SECTION – II

Answer **any eight** questions.

(8×2=16 Marks)

11. What are the constituents of blood ?
12. Give a note on WBC.
13. What is Caloric value ?
14. What are the Functions of calcium ?
15. What is metabolic acidosis ?
16. Write a short note on Atherosclerosis.
17. What is Haemophilia ?
18. Give a note on cortisol.
19. What are the functions of estradiol ?
20. Give the functions and sources of vitamin E.
21. Give a note on obesity.
22. Draw the structure of adrenalin.

## SECTION – III

Answer **any six** questions :

(6×4=24 Marks)

23. Explain the types of blood cells.
24. Explain the structure and function of haemoglobin.
25. Give a note on absorption and transport of iron in human body.
26. Write a short note on the sources and functions of sodium and potassium. ✓
27. Give an account of Fat soluble vitamins.



28. Discuss liver function tests.
29. Give a note on jaundice.
30. Explain oxygen dissociation curve. ✓
31. Give a note on hyper cholesterolemia.

SECTION - IV

Answer **any two** questions.

(15×2=30 Marks)

32. Explain the mechanism of blood clotting.
  33. Describe the metabolism of foreign compounds in liver.
  34. Explain the organization of endocrine system.
  35. Discuss kidney function tests.
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Third Semester B.Sc. Degree Examination, December 2017  
Career Related First Degree Programme Under CBCSS  
Group 2(a) Botany and Biotechnology  
Complementary Course  
BB 1331 : PHYSIOLOGICAL ASPECTS IN BIOCHEMISTRY  
(2014 Admission Onwards)

Time : 3 Hours

Max. Marks : 80


SECTION - I

Answer all questions.

(10×1=10 Marks)

1. What is plasma ? *Flu. ...*
2. Define eosinophilia. *R*
3. Which are the fat soluble vitamins ?
4. List out the dietary sources of Vitamin-A.
5. What is the normal renal threshold value for glucose ? *↖*
6. Define chloride shift. *↖*
7. What is Bohr effect ?
8. List out the symptoms of diabetes mellitus.
9. Draw the structure of  $T_3$ .
10. List out the functions of Adrenalin.

## SECTION - II

  
(8×2=16 Marks)Answer **any eight** questions.

11. Give a note on physical properties of blood.
12. Write the functions of RBC.
13. List out the functions of Vitamin D and Vitamin E.
14. Give a note on Nyctalopia.
15. What is Osteomalacia ?
16. Give the structure of nephron.
17. What is respiratory acidosis ?
18. Give a note on carbonic anhydrase.
19. What is oxygen dissociation curve ?
20. What is hemophilia ?
21. Give a note on hypercholesterolemia.
22. What are the functions of oxytocin ?

## SECTION - III

Answer **any six** questions.

23. Write a short note on types of blood cells.
24. Give a note on blood groups.
25. Explain the sources and functions of calcium and sodium.
26. What are the deficiency diseases of Vitamin A ?
27. Write a short note on formation of urine.

(6×4=24 Marks)



~~28.~~ Differentiate between metabolic acidosis and alkalosis.

29. Explain the types of buffers in blood.

~~30.~~ Write a short note on diabetes.

31. Give an account of peptide hormones. <sup>HCO<sub>3</sub><sup>-</sup></sup>

SECTION - IV

(15x2=30 Marks)

<sup>glucose</sup>  
<sup>NaCl</sup>  
Answer any two questions.

32. Explain the process of blood clotting.

~~33.~~ Explain the structure, function and types of hemoglobin.

~~34.~~ Give an account of the metabolism of foreign compounds in the liver.

35. Explain the organization of endocrine system.

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**Third Semester B.Sc. Degree Examination, January 2019**  
**Career Related First Degree Programme under CBCSS**  
**2(a) – BOTANY AND BIOTECHNOLOGY**  
**Complementary Course – I : BB 1331**  
**Physiological Aspects in Biochemistry**  
**(2014 Adm. Onwards)**

Time : 3 Hours

Max. Marks : 80

SECTION – I

Answer **all** questions :

(1×10=10 Marks)

1. ✓ State the importance of platelets.
2. ✓ Define anti-coagulants.
3. ✓ State the functions of Vitamin E.
4. ✓ What is detoxification ?
5. ✓ What is urea clearance ?
6. ✓ Write the functions of sodium.
7. ✓ What is chloride shift ?
8. ✓ Name the buffers in blood.
9. ✓ Define diabetes.
10. ✓ Name the hormones of female reproductive system.

P.T.O.



## SECTION - II

(8×2=16 Marks)

Answer **any eight** questions :

11. Write down the type of blood cells.
12. Name the bile pigments and state its importance.
13. Define bleeding time.
14. Draw the chemical name of Vitamin K.
15. Write the sources and functions of calcium.
16. What is conjugation ?
17. Name the test used to assess detoxification function of liver.
18. What is the renal threshold levels of glucose ?
19. Write about the partial pressure of gases.
20. What is respiratory acidosis ?
21. What is Hemophilia ?
22. State the functions of adrenalin.

## SECTION - III

Answer **any six** questions :

(6×4=24 Marks)

23. Discuss the mechanism of bile pigment formation.
24. Describe hematopoiesis.
25. Explain the chemical nature, sources and functions of Vitamin C.
26. Draw the structure of heparin.
27. Explain the transport of gases in blood.
28. Differentiate acidosis and alkalosis.



29. What is atherosclerosis and explain the process of plaque formation ?
30. Write the functions of thyroid hormone.
31. Write about oxytocin and vasopressin.

#### SECTION - IV

Answer **any two** questions :

**(2×15=30 Marks)**

32. Explain in detail about blood coagulation and its factors.
  33. Discuss the sources, chemical nature, functions and deficiency water soluble diseases of any two vitamins.
  34. Describe the formation of urine.
  35. Write the classification and functions of Endocrine system.
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