

Reg. No.

--	--	--	--	--	--	--	--	--	--

**BSCCHE 136**

**I Semester B.Sc. Degree Examination, April 2021**

**(Choice Based Credit System)**

**(2020 – 21 Batch Onwards)**

**CHEMISTRY (Elective Paper)**

**Laboratory Reagents, Laboratory Safety and Domestic Chemicals**

Time : 2 Hours

Max. Marks : 40

- Instructions :**
- 1) Write the question number and sub-division **clearly**.
  - 2) Write the **chemical equations and diagrams wherever necessary**.
  - 3) Answer Part A in the **first two pages**.

**PART – A**

1. Answer **any five** of the following :

**(2×5=10)**

- a) What is RAMP concept of laboratory safety ?
- b) What is serendipity ?
- c) Define normality of a solution.
- d) What are hard soaps ?
- e) What is stain remover ? Give an example.
- f) What are colloids ? Give an example.

**PART – B**

Answer **any two** of the following questions choosing **one full** question from **each Unit**.

**(15×2=30)**

**Unit – I**

2. a) What are the action to be taken in case of chemical spills in the laboratory ? **4**
- b) Explain the role of serendipity in the discovery of insulin. **4**
- c) i) Write the procedure for the preparation of any two reagents used in inorganic salt analysis. **4**  
ii) Write a note on X-ray. **3**

P.T.O.



3. a) Explain the accidental discovery of cisplatin. 3  
 b) Discuss different methods of minimizing laboratory hazards. 5  
 c) i) What is globally harmonized system? 3  
 ii) Write the procedure for the preparation of any two reagents used in organic compound analysis. 4
- Unit - II**
4. a) What are soaps? Explain saponification reaction for the manufacture of soap. 4  
 b) Write a note on Talcum powder. 4  
 c) i) Explain any three industrial applications of colloids. 4  
 ii) Explain cleansing action of soap. 3
5. a) Mention the differences between soaps and detergents. 3  
 b) Explain how dust and carbon particles are minimized in smoke using cottrell precipitation method. 5  
 c) i) Write a note on special chemical used in cosmetics. 3  
 ii) Explain the production of artificial rain. 4

PART - B

Unit - I

4. a) What are the action to be taken in case of chemical spills in the laboratory? 4  
 b) Explain the role of serendipity in the discovery of insulin. 4  
 c) i) Write the procedure for the preparation of any two reagents used in inorganic salt analysis. 4  
 ii) Write a note on X-ray. 3

P.T.O.

Reg. No.

--	--	--	--	--	--	--	--	--	--

**BSCMTC 131**

**I Semester B.Sc. Examination, April 2021**  
**(Choice Based Credit System) (2019 – 2020 Batch Onwards)**

**MATHEMATICS****Calculus and Analytical Geometry**

Time : 3 Hours

Max. Marks : 80

- Instructions :** 1) Answer **any ten** questions from Part A. Each question carries 2 marks.
- 2) Answers to Part A should be written in the first few pages of the answer book before answers to Part B and C.
- 3) Answer **six full** questions from Part B and **six full** questions from Part C.
- 4) **Scientific** calculators are **allowed**.

**PART – A**1. Answer **any ten** questions.**(10×2=20)**

- a) Find the oblique asymptote of the graph of the function  $f(x) = \frac{x^2 + 3}{x + 2}$ .
- b) Find the horizontal and vertical asymptotes of the curve  $y = \frac{x + 3}{x + 2}$ .
- c) Give an example of a function where  $f''(x) = 0$  at  $x = C$ , but a point of inflection does not exist at C.
- d) Define concavity of the graph of a function.
- e) Find the average value of the function  $f(x) = x^2 - 1$  in  $[0, \sqrt{3}]$ .
- f) If  $y = \int_1^{x^2} \cos t \, dt$ , find  $\frac{dy}{dx}$ .
- g) Evaluate  $\int \tan^4 x \, dx$ .
- h) Evaluate  $\int_0^{3/2} \frac{dx}{\sqrt{9 - x^2}}$ .
- i) Find the domain of the function  $f(x, y) = \sqrt{y - x^2}$ .

P.T.O.



j) Find the level curves of the function  $f(x, y) = \frac{1}{2}(x^2 + y^2)$  at 8 and 0.

k) If  $f(x, y) = \sin^2(x - 3y)$ , find  $\frac{\delta f}{\delta x}$  and  $\frac{\delta f}{\delta y}$ .

l) Find the foci and directrices of the conic  $6x^2 + 9y^2 = 54$ .

m) Identify the conic  $xy - y^2 - 5y + 1 = 0$  using discriminant test.

n) If vertices and asymptotes of the hyperbola are  $(\pm 3, 0)$  and  $y = \pm \frac{4}{3}x$  respectively. Then find the standard form equation of the hyperbola.

### PART - B

2. Answer any six questions.

(6x5=30)

a) State and prove second derivative test for local extrema.

b) Include the co-ordinates of any local extreme points and points of inflection and draw a sketch of the graph of the function  $y = x\sqrt{8-x^2}$ .

c) Find the domain, critical points, intervals of increase and decrease, points of inflection, intervals of concavity and asymptotes of the graph of the function  $y = \frac{x^2+3}{x-1}$  and draw a sketch of the graph.

d) State and prove Rolle's theorem.

e) Find the point 'C' of mean value theorem for the function  $f(x) = x + \frac{1}{x}$  in  $[\frac{1}{2}, 2]$ .

f) Obtain a formula for upper Reimann sum by dividing the interval  $[0, 1]$  into 'n' subintervals and find the area below the curve  $f(x) = 1 - x^2$  in  $[0, 1]$  by taking limit as  $n \rightarrow \infty$ .

g) If  $f(x)$  is continuous in  $[a, b]$  and  $F(x) = \int_a^x f(t) dt$  is continuous in  $[a, b]$  and differentiable in  $(a, b)$ , then prove that  $F'(x) = f(x)$ .

h) Obtain a reduction formula for  $\int \cos^n x dx$ .

i) Evaluate i)  $\int (\ln x)^n dx$  ii)  $\int \frac{\sqrt{y^2-49}}{y} dy$



PART - C

3. Answer any six questions:

(6x5=30)

a) Using  $\epsilon - \delta$  definition, prove that  $\lim_{(x,y) \rightarrow (3,2)} (3x - 4y) = 1$ .

b) Show that the function  $f(x,y) = \begin{cases} \frac{2xy}{x^2 + y^2}, & (x,y) \neq (0,0) \\ 0 & (x,y) = (0,0) \end{cases}$

is continuous at every point except at the origin.

c) Use the chain rule to find the derivative of  $w = x^2y - y^2$  with respect to 't' along the path  $x = \sin t, y = t^t$ . What is the derivative value at  $t = 0$  ?

d) Find  $\frac{\partial u}{\partial r}$  and  $\frac{\partial u}{\partial s}$ , if  $u = \cosh\left(\frac{y}{2}\right), x = 3r^2s, y = 6se^r$  using chain rule.

e) If  $u = \sqrt{x^2 + y^2 + z^2}, x = \tan t, y = \cos t, z = \sin t$ , find  $\frac{du}{dt}$  using

i) chain rule

ii) Substitution for x and y before differentiation.

f) Find the eccentricity of the ellipse  $16x^2 + 25y^2 = 400$  and sketch the ellipse and include foci and directrices.

g) The parabola  $x^2 = 8y$  is shifted right one unit and down seven units. Find the equation of the new parabola and the corresponding vertex, directrix and focus. Also sketch the new parabola.

h) Eccentricity of a hyperbola is  $\frac{3}{2}$ , focus is  $(1, -3)$  and corresponding directrix is  $y = 2$ , then find the equation of the hyperbola.

i) Remove xy term in the equation  $3x^2 + 2\sqrt{3}xy + y^2 - 8x + 8\sqrt{3}y = 0$  by rotation of co-ordinate axes and identify the conic.

\_\_\_\_\_

Reg. No.

--	--	--	--	--	--	--	--	--	--

**BSCPHC 131****I Semester B.Sc. Degree Examination, April 2021****(Choice Based Credit System)****(2019-20 Batch Onwards)****PHYSICS****Paper – I : General Physics – I**

Time : 3 Hours

Max. Marks : 80

**Instructions :** 1) Answer questions from **all** Units.2) **Scientific** calculators are **allowed**.

PART – A

- Answer **any eight** of the following : **(1×8=8)**
  - If  $\vec{A} \cdot \vec{B} = 0$ , what is the angle between  $\vec{A}$  and  $\vec{B}$  ?
  - What are surface satellites ?
  - Define radius of gyration.
  - Write the SI unit of moment of inertia of a rigid body.
  - What is the condition for minimum time period of a compound pendulum ?
  - Define an adiabatic process.
  - What happens to the entropy of a system during cyclic process ?
  - What is cryogenics ?
  - What is throttling process in porous plug experiment ?
  - What is an ideal gas ?
- Answer **any six** of the following : **(2×6=12)**
  - What is a multi stage rocket ? What is its advantage over single stage rocket ?
  - Define central force and give one example.
  - What is a conservative force ? Give one example for it.
  - Define centre of suspension and centre of oscillation of compound pendulum.
  - Distinguish between reversible and irreversible process in thermodynamics.
  - Write the principle of refrigerator.
  - What is Seebeck effect ? Explain.
  - Explain what is an inversion temperature for liquifaction of gases.

P.T.O.



PART – B  
Unit – I

3. a) State and prove the law of conservation of angular momentum. 4  
b) Derive the general expressions for orbital velocity, time period and altitude of a satellite. 7

OR

4. a) State Kepler's laws of planetary motion. 4  
b) Obtain expressions for radial and transverse components of velocity and acceleration of a particle describing arbitrary planar motion. 7  
5. a) An empty rocket weighs 500 kg containing 45,000 kg fuel. If the exhaust velocity of the escaping gas is  $2 \text{ km s}^{-1}$ . Calculate maximum velocity attained. 4

OR

- b) A satellite revolving round the earth at a mean altitude of 500 km has a period of 98 minutes. Calculate the mass of the earth. 4  
Given :  $G = 6.67 \times 10^{-11} \text{ Nm}^2 \text{ kg}^{-2}$  and radius of earth = 6400 km.

Unit – II

6. a) State and prove the theorem of parallel axes. 4  
b) Derive an expression for the period of compound pendulum. Show that point of suspension and point of oscillation are interchangeable. 7

OR

7. a) Deduce conservation of energy in conservative force field. 4  
b) Find MI of a thin rod about (i) an axis passing through its C.G and perpendicular to its length and (ii) an axis through one end of the rod and perpendicular to its length. 7

8. a) A 2 kg mass hangs from a spring. A 0.3 kg body hung below stretches it further by 2 cm. If 0.3 kg is removed and the mass is set into oscillations, find the time period. 4

OR

- b) A uniform circular disc of diameter 0.2 m vibrates about a horizontal axis perpendicular to its plane and at a distance of 0.05 m from the centre. Calculate the time period of oscillation and the equivalent length of the simple pendulum. 4



## Unit – III

9. a) Derive the expression for the work done in an isothermal process. 4  
 b) Explain change in entropy. Represent the Carnot's cycle on a temperature – entropy diagram and prove that the area represents available energy. 7

OR

10. a) Explain the parts of ideal heat engine with diagram. 4  
 b) Deduce the Clausius-Clapeyron latent heat equation and discuss the variation of freezing and boiling points of liquids with pressure. 7
11. a) Calculate the change in entropy when 0.02 kg of ice at 0°C melts into water at 40°C. 4  
 Given : Latent heat of fusion of ice =  $3.36 \times 10^5 \text{ J kg}^{-1}$  and specific heat of water =  $4200 \text{ J kg}^{-1} \text{ K}^{-1}$ .

OR

- b) A Carnot's engine working between 300 K and 600 K has a work output of 800 J per cycle. Calculate the heat supplied to the engine from the source. 4

## Unit – IV

12. a) Discuss the results of the porous plug experiment. 4  
 b) Draw the isothermal curves connecting pressure and volume in Andrews experiment. Discuss the results of Andrews experiments and define critical temperature. 7

OR

13. a) Explain with diagram the regenerative cooling. 4  
 b) What is thermo emf ? Explain with circuit diagram the measurement of temperature using thermocouple. 7
14. a) When one of the junctions of thermocouple is at 40°C and the other at 0°C its thermo emf is  $400 \mu \text{ V/C}$ . When the temperature of the hot junction increased to 100°C, its emf becomes  $500 \mu \text{ V/C}$ . Find the constants 'a' and 'b'. 4

OR

- b) The Van der Waals constants for hydrogen are  $a = 0.0248 \text{ Nm}^4 \text{ mol}^{-2}$  and  $b = 2.67 \times 10^{-5} \text{ m}^3 \text{ mol}^{-1}$ . Calculate the critical temperature and Boyle temperature. Given :  $R = 8.314 \text{ J/mole K}$ . 4





**BSCCHC 134**

**I Semester B.Sc. Degree Examination, April 2021**  
**(Choice Based Credit System)**  
**(2020-21 Batch Onwards)**  
**CHEMISTRY (Paper – 1)**

Time : 3 Hours

Max. Marks : 80

- Instructions :**
- 1) Write the question number and subdivisions **clearly**.
  - 2) Write **equations** and diagrams **whenever necessary**.
  - 3) -Answer Part – A in **first two pages** of the answer book.
  - 4) **Scientific calculators are allowed**.

**PART – A**

Answer **any ten** of the following : **(2×10=20)**

1. a) Define the centre of symmetry.
- b) Mention two applications of liquid crystals.
- c) Define critical temperature.
- d) Calculate the bond order of O<sub>2</sub>.
- e) What is meant by lattice energy ?
- f) What are semi-conductors based on band theory ?
- g) Chloroacetic acid is much stronger than acetic acid. Why ?
- h) What is nitrene ? Give an example.
- i) What is an electrophilic addition reaction ?
- j) What is R<sub>f</sub> value ?
- k) Mention two advantages of volumetric analysis.
- l) Alkali metals are poor oxidizing agents. Give reason.



## PART - B

Answer **any four** of the following questions. Choosing **one** question from each Unit.

(4x15=60)

## Unit - I

2. a) Derive Bragg's equation  $n\lambda = 2d \sin\theta$  for a crystalline solid. 4
- b) Write a note on axis of symmetry. 4
- c) i) Calculate RMS, average and most probable velocities of methane at 25°C. 4
- ii) Write the differences between solid, liquid crystal and liquid. 3
3. a) Draw diagrams showing different planes of symmetry in a cube. 3
- b) Derive expression for critical constants of a gas using Van der Waal's equation of state. 5
- c) i) Explain the determination of crystal structure of sodium chloride (rock salt) by Bragg's method. 4
- ii) What is meant by Bravais lattice? Mention the types of Bravais lattices in a cubic crystal system. 3

## Unit - II

4. a) Compare the shapes of  $\text{H}_2\text{O}$  and  $\text{H}_2\text{S}$  based on the concept of Hybridisation and VSEPR theory. 4
- b) With neat labelled sketch, show the formation of molecular orbitals by the combination of 2p orbitals. 4
- c) i) Explain the phenomenon of solubility of ionic solids in polar solvents. 4
- ii) Explain the electrical conductivity of Lithium, based on band theory. 3
5. a) Explain hybridization and the shape of  $\text{BeF}_2$  molecule. 3
- b) Draw the molecular orbital energy level diagram for NO molecule; show the filling up of electrons. Write the molecular orbital configuration and calculate bond order and explain the magnetic property. 5
- c) i) What is meant by polarisation of a bond, polarizing power of cation and polarisability of anion? 4
- ii) Give the rules used for filling up of electrons in molecular orbitals. 3



### Unit – III

6. a) What is Hyperconjugation ? Explain the relative stabilities of primary, secondary and tertiary carbocations on the basis of Hyperconjugation. 4
- b) Give the mechanism of Friedel – Craft's reaction. 4
- c) i) Explain 'Regioselectivity' in Electrophilic addition of Hydrogen bromide to alkenes. 4
- ii) Explain Diels-Alder reaction. Mention its importance. 3
7. a) Write a note on free radical addition to 1, 3 - Butadiene. 3
- b) Give the mechanism of Hofmann rearrangement. 5
- c) i) Give the mechanism of addition of HCN to carbonyl compounds. 4
- ii) Write a note on inductive effect. 3

### Unit – IV

8. a) Explain the principles of gas chromatography and its two applications in organic chemistry. 4
- b) What are determinate errors ? Explain how they are minimized. 4
- c) i) Give the principle behind the volumetric analysis. 4
- ii) Calculate effective nuclear charge felt by the last d electron of Mn (At. No. 25). 3
9. a) Explain with example paper chromatography. 3
- b) State and explain with an example Slater's rule for determining effective nuclear charge. 5
- c) i) A student reported following titre values for the estimation of oxalic acid 10.1, 10.5, 10.3, 10.4, 10.2 cm<sup>3</sup> find mean, median, range and population standard deviation. 4
- ii) Give the advantages of instrumental methods of analysis. 3

--	--	--	--	--	--	--	--	--	--

# BASCIF 131/BCMCIF 131/BSCCIF 131/BCACIF 131/ BBACIF 131

I Semester Examination, April 2021  
Common to All Other UG Courses  
(Choice Based Credit System)  
(2019-20 Batch Onwards) (Compulsory Paper)  
Elective Foundation Course  
CONSTITUTION OF INDIA  
ಭಾರತದ ಸಂವಿಧಾನ

Time : 2 Hours

Max. Marks : 40

## SECTION – A

**Note :** a) Answer any ten questions from the following : (2×10=20)

ಈ ಕೆಳಗಿನ ಯಾವುದಾದರೂ ಹತ್ತು ಪ್ರಶ್ನೆಗಳನ್ನು ಉತ್ತರಿಸಿರಿ.

b) Answer each question in 2 or 3 sentences.

ಪ್ರತಿ ಪ್ರಶ್ನೆಯನ್ನು 2 ಅಥವಾ 3 ವಾಕ್ಯಗಳಲ್ಲಿ ಉತ್ತರಿಸಿರಿ.

1. What is the meaning of Constitution ?  
ಸಂವಿಧಾನದ ಅರ್ಥವನ್ನು ಬರೆಯಿರಿ.
2. When was the Constituent Assembly set up ? Who was its permanent President ?  
ಸಂವಿಧಾನ ರಚನಾ ಸಭೆಯನ್ನು ಯಾವಾಗ ರಚಿಸಲಾಯಿತು ? ಅದರ ಶಾಶ್ವತ ಅಧ್ಯಕ್ಷರು ಯಾರು ?
3. Write any two characteristics of Constituent Assembly.  
ಸಂವಿಧಾನ ರಚನಾ ಸಭೆಯ ಯಾವುದಾದರೂ ಎರಡು ಲಕ್ಷಣಗಳನ್ನು ಬರೆಯಿರಿ.
4. What do you mean by 'secular state' ?  
'ಜಾತ್ಯತೀತ ರಾಷ್ಟ್ರ' ಎಂದರೇನು ?
5. Why India is called as Republic ?  
ಭಾರತವನ್ನು ಗಣತಂತ್ರ ಎಂದು ಯಾಕೆ ಕರೆಯಲಾಗುವುದು ?
6. What is 'Preamble' of Constitution ?  
ಸಂವಿಧಾನದ 'ಪೂರ್ವ ಪೀಠಿಕೆ' ಎಂದರೇನು ?

**BASCIF 131/BCMCIF 131/BSCCIF 131/BCACIF 131/BBACIF 131**

7. Write any two features of fundamental rights.

ಮೂಲಭೂತ ಹಕ್ಕುಗಳ ಯಾವುದಾದರೂ ಎರಡು ಲಕ್ಷಣಗಳನ್ನು ಬರೆಯಿರಿ.

8. What is meant by Directive Principles of State Policy ?

ರಾಜ್ಯ ನೀತಿ ನಿರ್ದೇಶಕ ತತ್ವಗಳು ಎಂದರೇನು ?

9. Mention any two fundamental duties of Indian citizens.

ಭಾರತದ ಪೌರರ ಯಾವುದಾದರೂ ಎರಡು ಮೂಲಭೂತ ಕರ್ತವ್ಯಗಳನ್ನು ತಿಳಿಸಿರಿ.

10. What is the Form of Parliamentary Government ?

ಸಂಸದೀಯ ಸರ್ಕಾರ ಪದ್ಧತಿ ಎಂದರೇನು ?

11. Mention any two functions of the Prime Minister of India.

ಭಾರತದ ಪ್ರಧಾನಮಂತ್ರಿಯ ಯಾವುದಾದರೂ ಎರಡು ಕಾರ್ಯಗಳನ್ನು ತಿಳಿಸಿರಿ.

12. Write any two financial powers of the Governor.

ರಾಜ್ಯಪಾಲರ ಯಾವುದಾದರೂ ಎರಡು ಹಣಕಾಸಿನ ಅಧಿಕಾರಗಳನ್ನು ಬರೆಯಿರಿ.

13. What is the meaning of 'Judicial Review' ?

'ನ್ಯಾಯಿಕ ಪರಾಮರ್ಶೆ' ಎಂದರೇನು ?

14. Why Judiciary is called as the 'Protector of Fundamental Rights' ?

ನ್ಯಾಯಾಂಗವನ್ನು 'ಮೂಲಭೂತ ಹಕ್ಕುಗಳ ರಕ್ಷಕ' ಎಂದು ಯಾಕೆ ಕರೆಯಲಾಗುತ್ತದೆ ?

15. Why is Indian Federalism called as 'Quasi Federal' ?

ಯಾಕೆ ಭಾರತದ ಸಂಯುಕ್ತ ವ್ಯವಸ್ಥೆಯನ್ನು 'ಅರೆ-ಸಂಯುಕ್ತತೆ' ಎಂದು ಕರೆಯಲಾಗಿದೆ ?

**SECTION – B**

**Note :** a) Answer **any four** questions from the following :

**(4×5=20)**

ಈ ಕೆಳಗಿನವುಗಳಲ್ಲಿ ಯಾವುದಾದರೂ ನಾಲ್ಕು ಪ್ರಶ್ನೆಗಳನ್ನು ಉತ್ತರಿಸಿರಿ.

b) Answer **each** question in about **300** words.

ಪ್ರತಿ ಪ್ರಶ್ನೆಯನ್ನು **300** ಪದಗಳಲ್ಲಿ ಉತ್ತರಿಸಿರಿ.

16. Elucidate the salient features of Indian Constitution.

ಭಾರತದ ಸಂವಿಧಾನದ ಪ್ರಮುಖ ಲಕ್ಷಣಗಳ ಬಗ್ಗೆ ಬರೆಯಿರಿ.

**BASCIF 131/BCMCIF 131/BSCCIF 131/BCACIF 131/BBACIF 131**

17. Discuss the Right to Freedom of Religion included in the Indian Constitution.

ಭಾರತದ ಸಂವಿಧಾನದಲ್ಲಿ ಉಲ್ಲೇಖಿತವಾದ ಧಾರ್ಮಿಕ ಸ್ವಾತಂತ್ರ್ಯದ ಹಕ್ಕುಗಳ ಬಗ್ಗೆ ಚರ್ಚಿಸಿ.

18. Explain the executive powers of the President of India.

ಭಾರತದ ರಾಷ್ಟ್ರಾಧ್ಯಕ್ಷರ ಕಾರ್ಯಾಂಗೀಯ ಅಧಿಕಾರಗಳನ್ನು ವಿವರಿಸಿ.

19. Discuss the powers and functions of the Union Cabinet.

ಕೇಂದ್ರ ಸಚಿವ ಸಂಪುಟದ ಅಧಿಕಾರ ಮತ್ತು ಕಾರ್ಯಗಳನ್ನು ಚರ್ಚಿಸಿರಿ.

20. What are the powers and functions of Chief Minister of a State ?

ರಾಜ್ಯಗಳ ಮುಖ್ಯಮಂತ್ರಿಯ ಅಧಿಕಾರ ಮತ್ತು ಕಾರ್ಯಗಳನ್ನು ವಿವರಿಸಿರಿ.

21. Explain the original jurisdiction of Supreme Court.

ಸರ್ವೋಚ್ಚ ನ್ಯಾಯಾಲಯದ ಮೂಲ ನ್ಯಾಯಾಧಿಕಾರದ ಬಗ್ಗೆ ವಿವರಿಸಿರಿ.

22. What is 'Right to Information' (2005) ? Explain its importance.

'ಮಾಹಿತಿ ಹಕ್ಕು' (2005) ಎಂದರೇನು ? ಅದರ ಪ್ರಾಮುಖ್ಯತೆಯನ್ನು ಬರೆಯಿರಿ.

23. Explain the powers and functions of the Election Commission of India.

ಭಾರತದ ಚುನಾವಣಾ ಆಯೋಗದ ಅಧಿಕಾರ ಮತ್ತು ಕಾರ್ಯಗಳನ್ನು ವಿವರಿಸಿರಿ.

d1  
BCA/BSC

Reg. No.

--	--	--	--	--	--	--	--	--	--



**BSCENL 131/FNDENL 131/BHSENL 131/BCAENL 131/  
BLDENL 131/BGDENL 131/BFTENL 131/BFDENL 131/  
BIDENL 131/BSAENL 131**

**I Semester B.Sc./B.Sc. (FND)/B.Sc.(HS)/B.C.A./B.Sc.(LD)/B.Sc.(GD)/  
B.Sc.(FT)/B.Sc.(FD)/B.Sc.(ID & D)/B.Sc. (Animation and Visual Effects)  
Degree Examination, April 2021  
(Choice Based Credit System)  
(2019-2020 Batch Onwards)**

**COMPULSORY FOUNDATION COURSE IN ENGLISH LANGUAGE**

Time : 3 Hours

Max. Marks : 80

**SECTION – A  
(Prose)**

- I. Answer **any one** of the following in **not more than two** pages : **(1×10=10)**
- 1) What Provokes the conjurer to take revenge on the Quick Man ?
  - 2) The boy in 'A Letter to a teacher' refers to the school as being a better place than home. Why ? Give reasons for your answer.
  - 3) When did Martin Luther King Jr. deliver his famous speech 'I have a dream' ? What was his dream ?
- II. Answer **any two** of the following in **not more than a** pages each : **(2×5=10)**
- 1) How does the student expose the weaknesses of his teachers in his 'A Letter to a Teacher' ?
  - 2) Do you approve of the conjurer's revenge ? State your reason for approval or disapproval.
  - 3) 'I shall go with you'. With whom did the girl go in the story 'A Wrong Man in Worker's Paradise' ? Why ?
  - 4) Was the narrator successful in hiding his disability from the girl in the story 'The Eyes are not Here' ? Give reasons for your answer.

P.T.O.

BSCENL 131/FNDENL 131/BHSENL 131/BCAENL 131/BLDENL 131/BGDENL 131/  
BFTENL 131/BFDENL 131/BIDENL 131/BSAENL 131



III. Do as directed :

1) Choose the synonym of the underlined word from the choices given below **each** sentence : (2×1=2)

a) I'm afraid I'm rather conventional in my tastes.

- i) harsh
- ii) traditional
- iii) perfect
- iv) modern

b) The jar is absolutely empty. I will fill it with some coffee.

- i) completely
- ii) rightly
- iii) dully
- iv) half

2) Fill in the blanks using the appropriate antonyms of the underlined words : (2×1=2)

a) The classes are \_\_\_\_\_ but the library is peaceful.

b) Ashoka was a great king for the big towns and also for the \_\_\_\_\_ villages.

3) Fill in the blanks using the appropriate form of the words given in brackets : (2×1=2)

a) Almost 17% of the students have \_\_\_\_\_ (failure).

b) People are \_\_\_\_\_ by advertisements. (deception)

4) Fill in the blanks choosing the appropriate words from those given in brackets : (2×1=2)

a) The child has been \_\_\_\_\_ for a while. (quiet/quite)

b) How many \_\_\_\_\_ do you have of the puzzle ? (pieces/peace)

5) Write one word substitutes for the following : (2×1=2)

a) Made some one a little angry.

b) A pair of straps for holding up trousers.

SECTION – B  
(Poetry)

IV. Answer **any one** of the following in **not more than two** pages : (1×10=10)

1) Summarise William Wordsworth's poem 'The Education of Nature' highlighting the key facts about Lucy.

2) Analyse the poem "Ode to Autumn" by John Keats as a poem of sensuousness.

3) How does Mathew Arnold present the decline of faith in his poem, 'Dover Beach' ?





**BSCENL 131/FNDENL 131/BHSENL 131/BCAENL 131/BLDENL 131/BGDENL 131/  
BFTENL 131/BFDENL 131/BIDENL 131/BSAENL 131**

V. Choose **any two** of the following passages and answer the questions set on them in **one** or **two** sentences **each** :

1) Myself will to my darling be

Both law and impulse : and with me

The Girl, in rock and plain,

In earth and heaven, in glade and bower,

Shall feel an overseeing power

To kindle or restrain.

a) Who is the speaker ?

1

b) Who is referred to as "the girl" ? Mention the places where the presence of the girl was seen ?

2

c) Explain the last two lines of the passage.

2

2) And still more, later flowers for the bees,

Until they think warm days will never cease,

For summer has over-brimmed their clammy cells.

Who hath not seen thee oft amid thy store ?

a) What are later flowers ?

1

b) Who are 'they' in the second line ?

2

c) What are clammy cells ? Why are they clammy ?

2

3) I remember the night my mother

was stung by a scorpion. Ten hours

of steady rain had driven him

to crawl beneath a sack of rice.

parting with his poison – flash

of diabolic tail in the dark

room he risked the rain again.

a) Who does "he" refer to ?

1

b) Why did he come inside the house ? Where did he hide ?

2

c) Why does the poet refer to his tail as diabolic ?

2

BSCENL 131/FNDENL 131/BHSENL 131/BCAENL 131/BLDENL 131/BGDENL 131/  
BFTENL 131/BFDENL 131/BIDENL 131/BSAENL 131



VI. Answer **any two** of the following in **not more than a page each** : (2×5=10)

- 1) Narrate the Speaker's ancestors' dream and how she tends to fulfil those in the poem, 'Still I Rise'.
- 2) Why does Arnold describe the world as a darkling plain in the poem, 'Dover Beach' ?
- 3) Ezekiel's father in the poem, 'The Night of the Scorpion', is usually a sceptic/rationalist. Elaborate.
- 4) What is the significance of the title 'Ode to Autumn' ?

**SECTION – C**  
**(Grammar)**

VII. Do as directed : (4×1=4)

- 1) Fill in the blanks with suitable articles :
  - a) His brother is \_\_\_\_\_ L.K.G. student.
  - b) Honesty is \_\_\_\_\_ best policy.
  - c) Joseph is \_\_\_\_\_ union leader.
  - d) Let's have \_\_\_\_\_ cup of tea.
- 2) Fill in the blanks choosing the appropriate prepositions given in brackets : (4×1=4)
  - a) The map lies \_\_\_\_\_ the table.
  - b) They are walking \_\_\_\_\_ the beach.
  - c) The criminal is \_\_\_\_\_ prison now.
  - d) He agreed \_\_\_\_\_ my demands.  
(to, in, along, on, of)
- 3) Add appropriate question tags to the following : (4×1=4)
  - a) I'm late, \_\_\_\_\_ ?
  - b) He did not come, \_\_\_\_\_ ?
  - c) They will do it, \_\_\_\_\_ ?
  - d) They are going to watch 'Avatar', \_\_\_\_\_ ?
- 4) Frame questions so as to get the underlined words as answer : (4×1=4)
  - a) He finished his studies in-2003.
  - b) She married her brother's friend.
  - c) They go to the hills every summer.
  - d) She sings melodiously.
- 5) Re-write the following sentences after correcting the grammatical errors found in them : (4×1=4)
  - a) She has failed in the English.
  - b) She asked him what was his name.
  - c) You are in trouble, are you ?
  - d) He sat besides me.

Reg. No.

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**BSCHDL 131/FNDHDL 131 /BSAHDL 131/BFTHDL 131/  
BFDHDL 131/BIDHDL 131**

**I Semester B.Sc./B.Sc. (FND)/B.Sc. (Animation and Visual Effects)/  
B.Sc. (Food Technology)/B.Sc. (FD)/B.Sc. (ID&D) Degree Examination, April 2021  
(Choice Based Credit System)  
(2019 – 20 Batch Onwards)**

**COMPULSORY FOUNDATION LANGUAGE HINDI  
Group – III : Paper – I**

Time : 3 Hours

Max. Marks : 80

I. निम्नलिखित प्रश्नों के उत्तर **एक शब्द** या **एक वाक्य** में लिखिए। **(10×1=10)**

- 1) चंद्रगुप्त उपाय के लिए किसका मुँह ताकता था ?
- 2) 'योग्यता और व्यवसाय का चुनाव' निबंध के रचनाकार कौन हैं ?
- 3) मास्को नाम का मूल क्या है ?
- 4) तोल्सतोय के उपन्यास का नाम क्या है ?
- 5) भक्तिन कौन हैं ?
- 6) मातादीन चाँद पर क्या देखकर आये हैं ?
- 7) घीसा ने अपने गुरु को क्या गुरु दक्षिणा दी ?
- 8) भारत विभाजन के सदमे में कुर्तुल हैदर से लिखित उपन्यास का नाम क्या है ?
- 9) 'भारत में रॉकेट विज्ञान' पाठ को किस पुस्तक से लिया गया है ?
- 10) डॉ. ए. पी. जे. अब्दुल कलाम का पूर्णनाम क्या है ?

II. संदर्भ सहित अर्थ लिखिए। **(2×5=10)**

अ) हम लोग कच्ची मिट्टी की मूर्ति के समान होते हैं जिसे जो जिस रूप का चाहे उस रूप का करे।

अथवा

कितना महान था विदेश, पर कितना प्रिय है मेरा देश।

P.T.O.

आ) मेरी राय में वह एक आदर्श प्रयोग कर्ता एवं प्रवर्तक थे ।

अथवा

जानता हूँ, बे । तुम्हारी पुलिस कमजोर है । अभी मैं उसे ठीक करता हूँ ।

III. निम्नलिखित प्रश्नों के उत्तर लिखिए ।

अ) 'मित्रता' निबंध का सार लिखकर विशेषताओं पर प्रकाश डालिए ।

10

अथवा

'घीसा' संस्मरण के आधार पर घीसा का चरित्र चित्रण कीजिए ।

आ) 'इंस्पेक्टर मातादीन चाँद पर' व्यंग्य लेख का सार लिखकर विशेषताओं पर प्रकाश डालिए ।

10

अथवा

कुर्तुल एन हैदर की आत्मकथा का सार लिखकर आशय स्पष्ट लिखिए ।

IV. किन्हीं दो प्रश्नों के उत्तर लिखिए ।

(2×5=10)

1) परिवर्तन के आधार पर शब्दों के कितने भेद हैं ? सोदाहरण लिखिए ।

2) अविकारी किसे कहते हैं ? उसके भेदों को उदाहरण सहित समझाइए ।

3) काल की परिभाषा देकर उसके भेदों को सोदाहरण समझाइए ।

V. निम्नलिखित गद्यांश का संक्षिप्तीकरण कीजिए जो मूल से एक तिहाई ( $\frac{1}{3}$ ) से अधिक न हो और उचित शीर्षक दीजिए ।

5

अनुशासन सफल जीवन का महत्वपूर्ण अंग है । जीवन में सच्ची शांति अनुशासन के ही द्वारा प्राप्त की जा सकती है । अनुशासनविहीन जीवन तो उस टूटे मकान की भाँति है जिसकी अस्त व्यस्त दीवारें बिखरकर खंडहर बन गई हों । सत्य तो यह है कि जो महत्व शरीर में व्यवस्थित रुधिर संचालन का होता है वही महत्व जीवन में अनुशासन का है । कल्पना करो अपने शरीर की उस स्थिति की जबकि उसके सभी अंग नियंत्रण से बाहर हो जाएँ, पैर चलना बन्द कर दें, हाथ मनमानी करने लगें । आँख देखना छोड़ दें, कान सुनना पसन्द न करें । मुँह भी अपना काम बन्द कर दें । शरीर के अंगों की उच्छृंखलता

BSCHDL 131/FNDHDL 131 /BSAHDL 131/BFTHDL 131/BFDHDL 131/BIDHDL 131

की इस अव्यवस्था से आपकी क्या दशा होगी। एक क्षण के लिए भी जीवित रहना आपके लिए दूभर हो जाएगा। बस ठीक यही भयावह स्थिति आपके उच्छृंखल अनियमित और अनुशासन विहीन जीवन की हो जाती है। सत्य तो यह है कि जहाँ अनुशासन नहीं वहाँ सुख शांति भी नहीं।

VI. पल्लवन कीजिए।

“बिना दुःख के सुख निस्सार”।

5

VII. अनुषा अगरवाल के नाम से विवाह विज्ञापन के आलोक में एक स्ववृत्त तैयार कीजिए।

5

अथवा

केनरा बैंक, मंगलूर में हिन्दी अधिकारी के पद के लिए एक स्ववृत्त लिखिए।

VIII. निम्नलिखित गद्यांश पढ़कर प्रश्नों के उत्तर लिखिए।

5

एक बार किसी राजा ने अकबर से कहा “यदि आप मुझे एक घड़ा भरकर बुद्धि दे दें तो मैं आपको चतुर मानूँगा।” अकबर सोच में पड़ गये और बीरबल से उपाय पूछा। बीरबल ने कहा, “महाराज ! मैं छह महीनों में एक घड़ा भरकर बुद्धि बना लूँगा।” घर आकर बीरबल ने अपने बगीचे में कद्दू का बीज बो दिया। बीज उगे और कुछ दिनों बाद बेल पर छोटे छोटे फल दिखने लगे। अब बीरबल ने छोटे मुँहवाला एक घड़ा लिया और घड़े को बेल के ऊपर टेढ़ा करके रखा, फिर बेल में लगे एक कद्दू को घड़े में डाल दिया। कुछ दिनों बाद वह कद्दू बढ़ते बढ़ते उस घड़े में फँस गया। बीरबल ने कद्दू को बेल से काटकर अलग किया और घड़े को अकबर को दे दिया और कहा, “महाराज ! यह है घड़ा भरकर बुद्धि, इस घड़े से बुद्धि को निकाल लीजिए। याद रखिए घड़ा टूटे नहीं, बुद्धि को साबुत निकालकर मेरा घड़ा वापस कर दीजिए।

प्रश्न:

- 1) राजा ने अकबर से क्या माँगा ?
- 2) बीरबल ने बगीचे में क्या बो दिया ?
- 3) बीरबल ने अकबर से कितना समय माँगा था ?
- 4) बीरबल ने घड़ा भर बुद्धि राजा को देते हुए क्या सावधानी बरतने को कहा ?
- 5) गद्यांश के लिए उचित शीर्षक दीजिए।

IX. अन्यलिङ्ग रूप लिखिए । (5x1=5)

- 1) भतीजा
- 2) धोबी
- 3) सेठ
- 4) मोर
- 5) कवि ।

X. वचन बदलिए । (5x1=5)

- 1) कलम
- 2) लता
- 3) सन्तरा
- 4) डिबिया
- 5) नदी ।