Batchler of Science Examination April May 2023

Day & Date	Semester	Subject Name	Time	Code	Marks
Friday 28/04/2023	II	Women's Issue	11.00 a.m. to 1.00 p.m.	200101	50

Instructions- Attempt all questions.

Q.1 Fill in the blanks (compulsory) **14marks**

1) _____is the way in which men and women are treated or behave differently in society, either with their own gender or with each other

1. Gender Dynamics 2. Gender mainstreaming 3. Gender parity 4. Gender analysis

2) Which of the following is/are status indicator(s) of gender?

I. Sex ratio

II Education

III. Well-being

1. I, II, and III, 2. I and II, 3. II and III, 4. Only III

3) Guns for boys and dolls for girls represents what kind of stereotype?

1. Grouping of individual's stereotype, 2. Gender stereotype, 3. Racial stereotype, 4. Cultural stereotype

4) The practice of selective elimination of the female foetus after prenatal sex determination or sex pre- selection thus, avoiding the birth of a girl child is known as

1. Female foeticide, 2. Female infanticide, 3. Son preference, 4. Son maina

5) Crime against Women and Children Question 1:
The weak position of women in society is due to-

1. Dowry system, 2. Purdah system, 3. Illiteracy, 4. All of the above

6) Choose the new savings scheme introduced for girl child from the following:

1. Suraksha Samridhi Yojana, 2. Sukanya Samridhi Yojana, 3. Sukanya Bima Yojana, 4. Suraksha Bima Yojana

7) The first woman teacher in India:

1. Savithri Bai Phule, 2. Pandit Ramabai Saraswathi, 3. Tarabai Shinde, 4. Begum Rokiya Sakhawat Hussain

Batcher of Science Examination April 2023

Day & Date	Semester	Subject Name	Time	Code	Marks
Tuesday 25/04/2023	II	Genetics, Biochemistry and Evolution	11.00 a.m. to 1.00 p.m.	205101	50

Instructions- Attempt all questions.

Q.1 Define Following Terms. (Compulsory) **14marks**

1. Define Carbohydrates.
2. Write down classification of carbohydrates?
3. How many types of Amino acid?
4. Define Amino acid.
5. Define Gonophore
6. Prokaryotic Cell.
7. Eukaryotic Cell.

Q2. Answer any two of the following question. **12marks**

1. Write down mohybrid Cross with suitable Example?
2. Write down Dihybrid Cross with suitable Example?
3. Write a note on ABO blood groups?

Q3. Describe any three of the following. (I to IV) **12marks**

1. Write down structure of Sulfur containing amino acid?
2. Write down structure of Basic amino acid?
3. Write down structure of Aromatic amino acid?
4. Write Down Structure of Glutamic acid , Tryptophan

Q4. Write an account on any three of the following. (I to IV) **12marks**

1. Write note on Primary Structure of Protein?
2. Write note on Secondary Structure of Protein?
3. Write note on Peptide Bond?
4. Explain prokaryotic cell?

Batcher of Science Examination April 2023

Day & Date	Semester	Subject Name	Time	Code	Marks
Wednesday 26/04/2023	II	Basic Embryology & Biotechnology	11.00 a.m. to 1.00 p.m.	205102	50

Instructions- Attempt all questions.

Q.1 Define Following Terms. (Compulsory) **14marks**

i. Biotechnology

ii. Sterilization

iii. Disinfection

iv. Bioremediation

v. Phytoremediation

vi. Gray Biotechnology

vii. Gold Biotechnology

Q2. Answer any two of the following question. **12marks**

1. Write a note on Sea urchin Sperm with suitable diagram?
2. Write a note on Sea urchin Egg with suitable diagram?
3. Write down use and application of Biotechnology?

Q3. Describe any three of the following. (I to IV) **12marks**

1. Write note on Hot air oven precautions?
2. Write note on Laminar Air Flow precautions?
3. Explain wet heat sterilization method?
4. Write note on Autoclave precautions?

Q4. Write an account on any three of the following. (I to IV) **12marks**

1. Advantages of Biotechnology?
2. Disadvantages of Biotechnology?
3. Explain Dry heat sterilization method?
4. Explain Chemical and solvent sterilization method?

Bachelor of Science Examination April May 2023

Day & Date	Semester	Subject Name	Time	Code	Marks
Friday 28/04/2023	II	Inorganic Chemistry	11.00 a.m. to 1.00 p.m.	202101	50

Instructions- Attempt all questions.

Q.1 Fill in the blanks (compulsory) **14marks**

1) **Geometry of a molecule depends on....**

(a) Type of overlap (b) type of hybridization (c) nature of overlap (d) type of orbitals

2) **sp hybrid orbitals are..... disposed.**

(a) trigonally (b) diagonally (c) irregularly (d) periodically

3) **Which of the following is a linear molecule?**

(a) BF_3 (b) $SiCl_4$ (e) $BeCl_2$ (d) PCl_5

4) **Geometry of IF_7, is.....s**

(a) Octahedral (b) trigonal bipyramidal (c) pentagonal bipyramidal (d) square planar

5) **Which of the following elements has the highest metallic content?**

(a) P (b) As (c) (c) Sb (d) Bi

6) **Element found from sea water is**

(a) magnesium (b) Sodium (c) Iodine (d) None of these

7) **Catenation property is maximum in**

(a) Phosphorus (b) carbon (c) Sulphur (d) zinc

8) **Which of following is most electronegative elements in periodic table**

(a) Oxygen, (b) Nitrogen, (c) fluorine, (d) Hydrogen

2. Answer any two of the following question. **12marks**

1) Write of note on Valence bond Theory .
2) Explain Born- Hyber CycleTheory.
3) How will you account $BeCl_2$.

Q3. Describe any three of the following. (I to IV) **12marks**

1) What are conditions of Hybridization?
2) Write postulate of valence shell electron pair repulsion (VSEPR) Theory.
3) Explain Formation of ionic bond.
4) Determine the Shape of H2O molecules using the VSEPR Theory..

Q4. Write an account on any three of the following. (I to IV) **12marks**

1) Write structure, shape and geometry of xenon tetra fluoride (XeF_4).
2) Discuss periodic trends of Gr. 13 Elements Boron Family.
3) What is Solubility? Explain Solubility Product?
4) Explain Concept of Allotropy with example.

Bachler of Science Examination April 2023

Day & Date	Semester	Subject Name	Time	Code	Marks
Saturday 29/4/2023	II	Fundamentals of microbiology	11.00 a.m. to 01.00 p.m.	207101	50

Instructions- Attempt all questions.

Q.1 **Answer the following question.** **14 marks**

1] The protein coat of viruses that .....
A)virus b) peplemoers c)capsid d)capsomere

2] Which of the following has non flagellated gamates__

a)Spirogyra b) Chlyamydomonas c) Volvax d) Fucus

3] This group is used to represent pathological fungi

(a) Penicillium(b)Truffles, mushrooms and morels (c) Smuts, rusts and molds (d) All of these

4]The degradation of complex molecule in soil by fungi for utilization by bacteria is an example of which type of association

(a) ns^{1-2} (b) ns^1 (c) ns^2 (d) ns^4

5]Cells where nitrogen fixation takes place in nostoc are known as

(a)Homogonia (b) Akinetes (c) Heterocytes(d) Nodules

6]..... is associated with tooth surface and appears to be the major etiological agent of tooth decay

(a)Staph.mutans (b)lactobacilli (c) dipthroids (d)Candida albicans .

7]Sweat gland secrets .....an enzyme that destroy bacterial cell wall

A)Sebum b)Lysozyme c) mucus d) lymphocytes

Q2. Answer any two of the following question. **12marks**

1) Write note on cultivation of viruses
2) Write note on predation
3) Write note on general characteristics of viruses

Q3. Describe any three of the following. (I to IV) **12marks**

1) Write note on Nitrogen fixation by microorganism
2) Write note on Human microbe interaction
3) Write note biological & economic importance of Algae
4) Short note on capsid and envelope

Q4. Write an account on any three of the following. (I to IV) **12marks**

1) Explain any four characteristics of Algae
2) Define Mutualism with example
3) Explain structure of bacteriophage
4) Explain biological & economic importance of fungi

Bachler of Science Examination April /May 2023

Day & Date	Semester	Subject Name	Time	Code	Marks
Tuesday 02/05/2023	II	Applied Microbiology	02.30 p.m. to 04.30 p.m.	107102	50

Instructions- Attempt all questions.

Q.1 Fill in the blanks (compulsory) **14marks**

1) Which of the following is an role of Condenser lenses

(a) Focuses the Beam (b) Filtrate the Beam (c) Filtrate the Wavelength (d) None of the above

2) Which of the following is an Light source in Fluorescent Microscope

(a) Tungsten wire (b) Xenon Arc (c) Both d) None of the above

3) Which of the following is an Acidic PH?

(a) 7(b) 2 (e) 14 (d) none of the Above

4) Which of the following Ph is used for calibration

(a) 1 (b) 10 (c) 7 (d) Both b and c

5) Which of the following Cell is involved in Cell mediated immunity.

(a) T cell (b) B cell (c) both (d)None of the Above

6) What is the process of a cell eating?

(a) Pinocytosis (b) Phagocytosis (c) Absorbing Nutrient (d) None of these

7) The presence of bacteria in a bloodstream is called……..

(a) Bactericidal (b) Bacteriostatic (c) Septicemia (d) Bacteremia

Q2. Answer any two of the following question. **12marks**

1) Write of note on First line of defense Mechanism
2) Explain Ph. Meter and its Calibration
3) Explain Bacterial Pathogenesis.

Q3. Describe any three of the following. (I to IV) **12marks**

1) Write a note on Cell Mediated Immunity
2) Explain Second line of Defense Mechanism: Phagocytosis.
3) Explain Fluorescent Microscope with Diagram
4) Write a note on Contagious, Clinical, Subclinical and Vector Born Infection.

Q4. Write an account on any three of the following. (I to IV) **12marks**

1) Difference between Cell and Antibody Mediated Immunity
2) Write a note on Primary & Secondary Infection.
3) Write a note on Antibody Mediated Immunity
4) Draw the Diagram of Scanning Electron Microscope

Bachelor of Science Examination: May - 2023

Day & Date	Semester	Subject Name	Time	Code	Marks
Wednesday 10-05-2023	III (Repeater)	Applied Microbiology	02:30 PM To 05:00 PM	307102	75

Instruction: 1) Question No. 5 is compulsory
2)Attempt any three from the remaining.
3) All question carry equal marks.

Q.1 a) Explain the sources of microorganism in foods. **10**
b) Write about the factors affecting microbial growth in foods. **10**

Q.2 a) Describe the composition of milk. **10**
b) Explain the processing and analysis of milk. **10**

Q.3 a) Write about upstream fermentation process. **10**
b) Design a classical submerged aerobic fermenter. **10**

Q.4 a) Describe about the classification of food by ease of spoilage. **10**
b) Explain the microbial examination of food. **10**

Q.5 Write a short note on following: (Any Three) **15**
a) Reduction of pH
b) Low temperature
c) Food Irradiation
d) Uses of gases

Bachelor of Science Examination April/May-2023

Day & Date	Semester	Subject Name	Time	Code	Marks
Thursday 27/04/2023	II	Physical Chemistry	11.00 a.m. to 01.00 p.m.	202101	50

Instructions- Attempt all questions.

Q.1 Fill in the blanks (compulsory) **14marks**

1) The interfacial angle of the same type of crystal is always.....
a) 90^0 b) less than 900 c) Constant d) 180^0

2) Cholesteryl benzoate is an example of ..... Crystal
a)Smetic b) nematic c) Cholesteric d) solid

3) The scattering of light by the dispersed phase is called .....
a) Brownian movement b) Tyndall effect c) adsorption d) electrophoresis

4) Smoke is an example of
(a) solid dispersed in solid (b) solid dispersed in liquid
(c) solid dispersed in gas (d) gas dispersed in solid

5) A crystalline solid does not have one of the following properties. It is
a) anisotropy (b) sharp melting points
c) isotropy d)definite and regular geometry

6) The continuous rapid zig-zag movement executed by a colloidal particle in the dispersion medium is called
(a) Tyndall effect (b) Brownian movement (c) electrophoresis (d) peptization

7) Which one of the following substances has London dispersion force as its only intermolecular force? (No hydrogen bonding, no dipole-dipole forces.)
(a) CH_3OH (b) NH_3 c)H_2S (d) CH_4.

Q2. Answer any two of the following question. **12marks**

1) Derive Kinetic gas equation?
2) Explain in details Electrical Properties of colloids? & it's Application of colloids?
3) Derive Braggs equation ?

Q3. Describe any three of the following. (I to IV) **12marks**

1) Explain structure of nematic & Cholestric Phase?
2) Calculate the miller indices of crystal plane which cuts through the crystal axes at 2a, -3b -3c.
3) Differentiate between Lyophilic and Lyophobic colloids
4) What are intermolecular forces? State & explain following types of forces.
i) London –Dispersion forces
ii) Dipole – Induced dipole interactions.

Q4. Write an account on any three of the following. (I to IV) **12marks**

1) Differentiate between types of colloids based on physical state ?
2) Exlain optical & kinetic Properties of colloids.
3) Give postulates of kinetic theory of gases ?
4) Differentiate between Solids, Liquid and Gases.

Bachelor of Science Examination: May- 2023

Day & Date	Semester	Subject Name	Time	Code	Marks
Monday 15-05-2023	III (Repeater)	Physical Chemistry – I	02:30 PM To 05:00 PM	302102	75

Instructions: 1) All questions are compulsory.
2) All questions carry equal marks.

Q.1 Attempt Any Five of the followings. 15

a) Explain the difference between reversible process and irreversible process.
b) Explain Helmoltz Gibbs function?
c) Define the term
   i) Enthalpy
   ii) Internal energy
   iii) Heat Capacity
d) Derive the relationship between Heat Capacity at constant volume and pressure.
e) Define any three statement of second law of thermodynamics?
f) What are Isolated, isothermal, isobaric process?
g) Define the term Entropy & give its unit?
h) State & explain Le-Chatelier principle?

Q.2 Attempt Any Three of the followings. 15

a) Define the term molar heat capacity at constant volume and constant pressure.
b) State and explain Hess's Law Constant heat Summation & its application
c) Calculate work done when 5 mole of ideal gas compressed isothermally & reversibly from 0.02 x105 pressure to 2.02 x 105 at 325 K.
d) State 1st Law of thermodynamics & derive the equation for first Law.
e) Explain the following terms:-
   i) Intensive Property with example
   ii) Extensive property with example

Q.3 Attempt Any Three of the followings. 15

a) Explain entropy changes in process of
   i) Fusion of solid
   ii) Evaporation of liquid.
b) Derive on expression for carnot theorem.
c) Derive an expression for Gibb's Helmholt'z function.
d) Derive an expression for relationship between ΔH and ΔE.
e) Why entropy as criteria of spontaneity

Q.4 Attempt Any Three 15

a) Derive an expression for change in enthalpy.
b) Derive the equation for the free energy change for isothermal and isobaric process?

c) Discuss the concept of maximum workdone. Derive the mathematical equation for Wmax.

d) Gives Physical significance of entropy, explain entropy as a State Function and Entropy change in physical change

e) Explain Carnot Cycle and its efficiency in brief.

Q.5 Attempt Any Three **15**

a) Derive the Clapeyron equation.

b) Derive Clausius- Clapeyron Equation and give its Application.

c) What are thermodynamic process? Explain different types of thermodynamic process.

d) What is chemical Equilibrium, explain Equilibrium constant and Free energy

e) Derive an expression for Van't Hoff isotherm?

Bachelor of Science (B.Sc.) Examination, April 2022

Day & Date	Semester	Subject Name	Time	Code	Marks
18/04/2022	II	Basic Embryology and Biotechnology	11.00 am to 01.00 pm	205102	50

Instructions- Attempted any Five Questions

Q.1 A. **Multiple Choice Question (MCQ)** 10 Marks

1) The amount of yolk and its distribution are changed in the egg. This is affected.....

(a) Fertilization

(b) Cleavage pattern

(c) Zygote formation

(d) Number of blastomeric

2) Which is a genetically modified crop?

a) Bt-cotton b) Bt- brinjal c) Golden rice d) All of the above

3) The Golden Rice variety is rich in.....

a) Vitamin C b) B-carotene and ferritin c) Biotin d)Lysine

4) The first week of Human Development is characterized by formation of the .....

a) Inner Cell Mass b) Trophoblast c) Blastocyst d) All of the above

5) The early stage of cleavage are characterized by .....

a) Formation of holo ball of cells b) Formation of Zonapensuda

c) Increases in the no of cells in the zygote d) None of the above

Q.2 A. Explain Food Biotechnology 05 Marks

B. Explain Safe handling of instruments and Lab Safety 05 Marks

Q.3 A. Explain Types of Fertilization 05 Marks

B. Write a note on Macrolecithal 05 Marks

Q.4 A. Explain Sterilization technique 05 Marks

B. Write a Note on Environmental biotechnology 05 Marks

Q.5	A.	Explain Enzyme technology	05 Marks
	B.	Short Note on Types of Eggs	05 Marks
Q. 6	A.	Explain Electrophoresis technique	05 Marks
	B.	Short Note on Types of gastrula	05 Marks
Q. 7	A.	Explain Types of blastula	05 Marks
	B.	Short Note on Chromatography	05 Marks

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Bachelor of Science (B.Sc.) Examination April 2022

Day & Date	Semester	Subject Name	Time	Code	Marks
16/04/2022	II	Genetics Biochemistry and Evolution	11.00 am to 01.00 pm	205101	50

Instructions- Attempted any Five Questions

Q.1 **A Multiple Choice Question (MCQ)** **10 Marks A.**

1. If More than two allies for a particular phenotype called it as .....

a) Epistasis b) Multiple Allelism c) Monohybrid d) Dihybrid

2. Theory of abiogenesis was proposed by .....

a) F. Reddy b) Spiallanzani d) Pasture d) Vol Helmont

3. Following is the example of clotting protein.

a) Prothrombin b) Albumin c) Collagen d) Elastin

4. Following is the example of simple protein.

a) Prothrombin b) Albumin c) Collagen d) Elastin

5. The Ratio of dihybrid cross is.....

a) 9:3:3:1 b) 1:2:1 c) 12:3:1 d) 15:1

Q.2 A. Write a short note on Monosaccharide's. 05 Marks

B) Enlist seven traits in Pea selected by Mendel. 05 Marks

Q.3 A. Give graphic representation of Monohybrid Cross with suitable example. 05 Marks

B) Describe Cholesterol and its function 05 Marks

Q.4 A. Describe theories which explain Origin of Life. 05 Marks

B) Write a note on Industrial Mellanisum. 05 Marks

Q.5 what is Dihybrid Cross? Explain with suitable example and checker board method. 05 Marks

Q. 6 A. Describe different types of Lipids. 05 Marks

B. Give Classification of Lipid. 05 Marks

Q. 7 A) What are Carbohydrates? Give the classification of Carbohydrates? 05 Marks

B) Write a note on theory of Biogenesis and explain it with their experimental Proofs. 05 Marks

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Bachelor of Science Examination April 2022

Day & Date	Semester	Subject Name	Time	Code	Marks
Thursday 21/4/2022	II	Fundamentals of Microbiology	11.00 am to 01.00pm	207101	50

Instructions- Attempt any five questions.

Q.1 Fill in the blanks 10 Marks

A) The protein coat of viruses that enclose the genetic material is called _____.

(a) Virion
(b) Capsid
(c) Peplomers
(d) Capsomers

B) Which of the following has non-flagellated isogamous gametes?

(a) *Spirogyra*
(b) *Chlamydomonas*
(c) *Volvox*
(d) *Fucus*

C) This group is used to represent pathological fungi

(a) Penicillium
(b) Truffles, mushrooms and morels
(c) Smuts, rusts and moulds
(d) All of the above

D) The degradation of complex molecules in soil by fungi for utilization by bacteria is an example of which type of association?

(a) Neutralism
(b) Mutualism
(c) Commensalism
(d) Antagonism

E) Cells where nitrogen fixation takes place in ***Nostoc*** are known as _____.

(a) Hormogonia
(b) Heterocysts
(c) Akinetes
(d) Nodules

Q.2 Explain types Microbial interaction and its examples. 10 Marks

Q.3	A. Write note on cultivation of virus.	5 Marks
	B. Short note on Parasitism.	5 Marks
Q.4	A. Write note on human microbes interaction.	5 Marks
	B. Write note characteristics of algae.	5 Marks
Q.5	A. Explain any to types of algae.	5 Marks
	B. Write note phyllosphere.	5 Marks
Q.6	A .Short note on general properties of virus	5 Marks
	B. Write note on Nitrogen fixation by microorganism.	5 Marks
Q.7	A. Write note Biological & economic Importance of Yeast	5 Marks
	B. Short note Human and microbes interaction	5 Marks

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Bachelor of Science Examination April 2022

Day & Date	Semester	Subject Name	Time	Code	Marks
Friday 22/4/2022	II	Applied Microbiology	11.00 am to 01.00pm	207102	50

Instructions- Attempt any five questions.

Q.1 Define the following terms 10 Marks

A) Vector Born Infection B) Zoonotic Infection C) Clinical Infection

D) Primary Infection E) Secondary Infection

Q.2 Explain in detail first line of defense mechanism 10 Marks

Q.3 A. Write Short note on Contiguous and Subclinical infection 5 Marks

B. Short note on Antibody Mediated immunity. 5 Marks

Q.4 A. Explain in detail Phagocytosis 10 Marks

Q.5 A. Write note on bacterial pathogenesis. 5 Marks

B. Explain cell mediated Immunity. 5 Marks

Q.6 A. Write note on PH Meter 5 Marks

B. Explain Calibration of autoclave. 5 Marks

Q.7 A. Write note Transmission electron microscopes (TEM) 5 Marks

B. Short note on Scanning electron microscopes (SEM) 5 Marks

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Bachelor of Science (BSc) Microbiology Examination April 2022

Day & Date	Semester	Subject Name	Time	Code	Marks
19/04/2022	II	Physical Chemistry	11.00 am to 01.00pm	202101	50

Instructions- Attempt any five questions.

Q.1 1) Range of particle size in colloidal solution is _____ 10 Marks (each of 2 marks)

a) $1\ A^0 - 10\ A^0$
b) $10\ A^0$-- $1000\ A^0$
c) $100\ A^0 - 1000\ A^0$
d) Greater than $1000\ A^0$

2) Brownian motion occurs in _____
a) True solution
b) Colloidal solution
c) Suspension
d) Both b & c

3) Ruby glass is the type of _____
a) Solid sol
b) Solid foam
c) Emulsion
d) Aerosol

4) In heterogeneous catalysis reactants and catalysts are in ------
a) Different phase
b) Same phase
c) Both a & b
d) None of these

5) VP = K , this defines _____
a) Charle' law
b) Avogadro's law
c) Grahham's
d) Boyle's law

Q.2 10 Marks (each of 5 marks)

A) Define Boyle's Law & write it's deduction

B) Give difference between order of reaction and molecularity of reaction

Q.3 10 Marks (each of 5 marks)

A) Explain methods to determine order of reaction

B) What are the Lyophobic and Lyophilic colloids?

Q.4

10 Marks (each of 5 marks)

A) Give postulates of kinetic theory of gases.

B) Derive kinetic gas equation.

Q.5

10 Marks (each of 5 marks)

A) Write a note on Avogadro' Law with its deduction.

B) Write note on Charles's Law with its deduction.

Q. 6

10 Marks (each of 5 marks)

A) Write a note on mechanical dispersion with diagram.

B) Write a note on electro-dispersion with diagram.

Q. 7

10 Marks (each of 2 marks)

a) Explain any two properties of lyophobic sols.

b) What is dialysis?

c) What is mean by catalysts?

d) Explain any four properties of catalysts.

e) Define Gas Law.

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Bachelor of Science I (BSc) Microbiology Examination April 2022

Day & Date	Semester	Subject Name	Time	Code	Marks
11/04/2022	II	Women Issue	11.00 am to 01.00pm	200101	50

Instructions- Attempt any **FIVE** questions.

Q.1 a) What are the health issues of women? 10 Marks (each of 2 marks)

b) Define violence and give example.

c) Define feminism.

d) What are the types of feminism?

e) What is social construction of gender?

Q.2 A) Write a note on health issues of women. 10 Marks (each of 5 marks)

B) Write a note on sexual harassment at work place.

Q.3 10 Marks (each of 5 marks)

A) Write a note on types of feminism.

B) Write a note on inequality in academic achievement.

Q.4 10 Marks (each of 5 marks)

A) Write short note on socialisation of girl child and patriarchy

B) Write short note on female foeticide and sex selection.

Q.5 10 Marks (each of 5 marks)

A) Write a note on propagation of stereotypes through advertisement film.

B) Explain education for empowerment and development of women.

Q. 6 10 Marks (each of 5 marks)

A) Write short note on concept of feminism.

B) Write a note on empowerment of women.

Q. 7 10 Marks (each of 5 marks)

A) Write short note on gender disparity.

B) Write a note on female mortality rate.

Bachelor of Science Examination April 2022

Day & Date	Semester	Subject Name	Time	Code	Marks
Wednesday 20/4/2022	II	Inorganic chemistry	11.00am to 01.00pm	202102	50

Instructions- **Attempt any five questions.**

Q.1 Fill in the blanks 10 Marks

A) Geometry of a molecule depends on_____.

(a) types of overlap

(c) types of hybridization

(b) Nature of overlap

(d) type of orbitals

B) Born-Haber Cycle is used to calculate _____

(a) *Lattice*

(c) *electron affinity*

(b) *heat of formation*

(d) *all of above*

C) Fajan's rule are applicable to account covalent character of _____.

(a) Covalent compounds

(c) Ionic compounds

(b) Metallic compounds

(d) All of the above

D)_____ is an ionic bond

(a) NaCl

(c) CCl_4

(b) HF

(d) Cl_2

E) The attractive force which keeps atoms together in a matter is known as _____ bond.

(a)electrovalent

(c) chemical