GONDIA EDUCATION SOCIETY'S



MANOHARBHAI PATEL COLLEGE OF ARTS, COMMERCE & SCIENCE



SADAK ARJUNI, GONDIA-441807

(AFFILIATED TO R.T.M.NAGPUR UNIVERSITY)



QnM-1.1.1: The Institution ensures effective curriculum delivery through a well planned and documented process





MANOHARBHAI PATEL COLLEGE OF ARTS, COMMERCE & SCIENCE

SADAK ARJUNI, Dist. Gondia.(Maharashtra) 441807

Affiliated to Rashtrasant Tukdoji Maharaj Nagpur University, Nagpur

E-mail:mbpatelsadakarjuni@gmail.com Phone (07199) 233224

336 Ref.No. MBPC/ /20222023

Date: 2810212023

Declaration

The information, reports, true copies of the supporting documents, numerical data, etc. furnished in this file is verified by IQAC and found correct.

Hence this certificate.

Mr. A. M. Patil
IQAC Coordinator
Manoharbhai Patel College
Sadak Arjuni



Dr. A. S. Dwivedi Chairman IQAC and Principal Manoharbhai Patel College Sadak Arjuni



Department of Chemistry

Manoharbhai Patel College of Arts commerce & Science College

Tal. Sadak Arjuni Dist Gondia

To,

Hon., Principal

MB Patel College of Arts commerce & Science College Sadak Arjuni

Tal Sadak Arjuni Dist Gondia

Sub: Proposal for Bridge Course in Chemistry

Respected Sir,

With reference to above subject, the Departments of Chemistry wish to organize a Bridge Course in Chemistry from academic year 2019-2020. The Course duration is of 16 clock hours spread over 08 weeks (2 period per week) course is specially designed for the UG students will participate in the course. A detailed proposal is enclosed herewith this letter we request you to kindly sanction the permission and financial support to conduct course.

Yours Faithfully

Mr. Chandrakant V. Bisen

Department of Chemistry



Course Proposal:

Name of Courses	Bridge Courses in Chemistry
Courses Coordinator	Mr.Chandrakant V. Bisen
Duration	08 Week (total 16 o clock hours ,2 hours per week)
Eligiblity	Students do this courses simultaneously with graduation
Fees	Not Required Free

Objectives of the Course:

Give students the confidence and skills to successfully transition to college and new curriculum.

Methodology

A Curriculum is framed separately in each of the subjects, for Bridge Course. During the first week after the commencement of the classes, the bridge course curriculum is delivered to the students in various disciplines. A post bridge course test is conducted after the completion of bridge course syllabus to assess the ability of student's suggestions is given to students for improvisation.

DEPARTMENT OF CHEMISTRY



Bridge Courses

"The essence of education lies in drawing out the very best that is in you."

A bridge course for newly admitted students is conducted every year before the commencement of the first semester classes. The main objective of the course is to bridge the gap between subjects studied at Pre-university level and subjects they would be studying in Graduation. The syllabus for the course is framed in such a way that they get basic knowledge on the subjects which they would be learning through graduation.

Objectives:

Give students the confidence and skills to successfully transition to college and new curriculum.

Methodology:

A Curriculum is framed separately in each of the subjects, for Bridge Course. During the first week after the commencement of the classes, the bridge course curriculum is delivered to the students in various disciplines. A post bridge course test is conducted after the completion of bridge course syllabus to assess the ability of student's suggestions is given to students for improvisation.

List of Students in Bridges Courses Year 2019-2020

Sr.No.	Name of Students	Class
1	Achal Nimorcy Chachane	F.Y.B.Sc
2	Pamiri Morreshwar Rajgire	F.Y.B.Sc
3	Hisroj Dipak Vaidhya	F.Y.B.Sc
4	Marisha Swresh Israle	F.Y.B.Sc
5	Megha Ishru Panchabhai	F.Y.B.Sc
6	Priyanka Vasant Borkar	F.Y.B.Sc
7	Shubham Hivorcy Crajbhiye	F.Y.B.Sc
8	Sindhutai Tejoram Meshoram	F.Y.B.Sc
9	Torupti, Duryodhan Crcyabe	F.Y.B.Sc
10		F.Y.B.Sc

Syllabus for the students in Bridge Courses

Department of Chemistry

Year 2019-2020

1] Some Basic concepts of Chemistry

- General Introduction: Importance and scope of Chemistry
- Atomic structure : Atom, atomic and molecular mass, mole concept
- · Percentage Composition, empirical and molecular formula
- Chemical reaction, stoichiometry and calculations based on stoichiometry.

2] Organic Chemistry

- Some Basic Principles and Techniques
- · General introduction, classification of organic compound
- IUPA nomenclature of organic compounds
- Covalent bond, Inductive effect, electrometric effect, resonance and hyperconjugation
- Homolytic and Heterolytic bond fission of covalent bond
- Free radical, Carbocation, Carboanion, electrophiles, nuecleophile types of organic reactions.

3] Basic and Fundamental Biochemistry:

- Carbhoydrates: Definations, Types of Carbhohydrates with Example and Structure
- Protein :Defination Types of Protein with examples
- Nucleic Acids: Components Type of Nucleic acid with Structure of DNA and RNA.
- Lipids: Definations Types of Lipids with examples.
- Vitamins :Types of Vitamins, Source ,Deficiency Diseases
- Minerals examples and Function

4] Hydrocarbons

- Classification of Hydrocarbons
- Aliphatic Hydrocarbons: Alkanes- Nomenclature, isomerism, conformation (ethane only), physical properties, chemical reactions. Alkenes- Nomenclature, structure of double bond (ethene), geometrical isomerism, physical properties, methods of preparation, chemical reactions: addition of hydrogen, halogen, water, hydrogen halides (Markovnikov's addition and peroxide effect), ozonolysis, oxidation, mechanism of electrophilic addition. Alkynes Nomenclature, structure of triple bond (ethyne), physical properties, methods of preparation, chemical reactions: acidic character of alkynes, addition reaction of hydrogen, halogens, hydrogen halides and water. Nervous Tissue structure of neuron, function.
- Aromatic Hydrocarbons: Introduction, IUPAC nomenclature, benzene: resonance, aromaticity, chemical properties: mechanism of electrophilic substitution. Nitration, sulphonation, halogenation, Friedel Craft's alkylation and acylation, directive influence of functional group in monosubstituted benzene. Carcinogenicity and toxicity.

5] Physical Chemistry

- Thermodynamics: basic Definitions of laws of thermodynamics
- Electrochemistry: Concepts of Electolytic and Electrochemical cells
- States of Matter: Solid, Liquid, Gaseous state.

Principal
Manoharbhai Patel Arts, Commerce

& Science College, Sadak Arjuni, Dist. Gondia, Pin Code - 441807

03500



Time Table for Bridges Courses Students

Year 2019-2020

Department of Chemistry

Theory Time Table

Sr.No	Time (Morning)	Mon	Tue	Wed	Thu	Fri	Sat
		BSC I					
1	8.00 to 8.50						
2	8.50 to 9.40				CVB		
3	9.40 to 10.30						
4	10.30 to 11.20			RNH			

CVB: Mr. Chandrakant V. Bisen

RNH: Mr. Ramdas N. Huse

Manoharbhai Patel College of Arts, Commerce and Science

Th-Sadak Arjuni, Dist-Gondia

Class: B.Sc. Sem-I Sub:-Chemistry Paper:-I+II Time:-30min Marks:-20

Note: - 1) All Question are Compulsory 2) All Questions are MCQ (Each Question carries 2 mark) 1. Neutron was discovered by -(a) J.J Thomson (b) Chadwick (c) Rutherford (d) Priestley 2. The nucleus of the atom consists of -(a) Protons and neutrons (b) Protons and electrons (c) Neutrons and electrons (d) Protons, neutrons and electrons 3. The radius of an atomic nucleus is of the order of-(a) 10^{-10} cm (b) 10^{-13} cm (c) 10^{-15} cm (d) 10^{-8} cm 4. The force of attraction between the particles of _____ matter is maximum. (a) Solid (b) Liquid (c) Gaseous (c) Non Of the above 5. The formal charge on carbanion is (d) + 2(a) + 1 (b) - 1 (b) 06. Which of the following is an extensive thermodynamics property (a) Specific heat capacity (b) Internal energy (d) Temperature (c) Pressure is a crystalline's basic repetitive structural unit. a) 3 b) 6 c) 14 d) 24 8. The study of reaction kinetics is called (a) Monomer b) Molecule c) Unit Cell d) Atom 9. Which Carbocation is most stable b) Secondary c) Tertiary d) Noon (a) Primary 10. Which bond is more stronger (a)Single (b) Double (c) Triple (d) None

MANOHARBHAI PATEL COLLEGE OF ARTS COMMERCE AND SCIENCE SADAK ARJUNI

MBPC

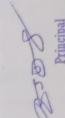
Tal Sadak Arjuni, Dist Gondia

Department of Chemistry

Attendance Register

Bridges Courses 2019-2020

Sr.		Date	100	1/2 3/0	3/05/0	6	9,12,13,2923/1,	5	2¢x	23/1	1	5	732	3	29	2	64	TA
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3	Hirry Dipah Vardlya		9	6	9	2	2		D . H	C	0	9	0	_		2	1	In
5	4 Marrisha Surresh I roole		0	d	0	9	0	0	2	2	9	9	4	2	0	9	13	In
N	5 Megha-Ishru Parehabha		0	6	9	0	0	2	2	9	9	0	9	2	0	-	2	
9	6 posigenta vasant Basha	J	9	82	2	2	4	S	4	0		4			-	6	1	10
-	Shubbarn Hivson Graybhiye		8	0	0	0	0	2	2	0	0	9	0	0	-	0	P	10
80	8 Sindhutay Tejoran Michoran		0	0	0	2	4	4	9	2	B	4	90	40	de de		0	In
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			8	2	2	8	4	2	2	2	D	PP	9	000	4	AP		9



Manoharbhai Patel Arts, Commerce & Science College, Sadak Arjuni,

Manoharbhai Patel College of Arts, Commerce and Science College, Sadak Arjuni

Department of Chemistry Bridge Course Report: 2019-2020

Every year at the beginning of the new academic year, we organize bridge courses on behalf of our department for the students from another faculty. This year also we started this course from dated 01/08/2019. Its detailed report is as follows. We have started this course in the department for those who have entered the first year of the B.Sc. and have not had chemistry as a subject before. For this, we selected students in class XII who did not belong to the Faculty of Science and whose was not the subject. We have prepared this course for a total of 16 hours from 01 of August to 02 of October 2019. A total of 09 students had participated in this course this year. In it we mainly teach the basics of Chemistry. That every Chemistry student should know. Accordingly, we explained to the students what is meant by Chemistry, its nature, scope, importance, and need for Chemistry. We took a 20 mark examination of all these students on 03 October 2019 and based on that we tested the basic knowledge of the students and through this course we proved to the students how important Chemistry is as the main subject. All the 09 students completed this course with good marks. Through this course, we paved the way for those who were not previously subject and brought them into the mainstream by guiding them through this bridging course on how to gain momentum in the study of chemistry. This is the main purpose of this course. In this way we successfully implemented this course in the year 2019-2020. For this, the course coordinator of the Chemistry Department, Asst. Prof. C. V. Bisen worked hard. In order to make the course successful helps and time to time provided guidance and interaction with the new students. Through this course, the mental strength or other faculty students was raised and the joy and excitement of participating in the Chemistry family was created in them. They got basic knowledge of chemistry through this course. In this way the course was completed. For your information, we are presenting the report of Bridge Course. Thank you.

Yours Faithfully

MBPC

Asst. Prof. C. V. Bisen

Bridge Course Co-cordinator



Feedback on Bridge Courses 2019-2020

Analysis Report of Students

Department of Chemistry

Sr. No	Index	Strongly Agree	Agree	Partially Agree	Disagre	Strongly Disagree
1	Current syllabus is good for skill development and employability	86%	T0 %	tox	00%	00 %
2	It increases social awareness moral values	80%	201.	60%	00 %	00%
3	It enhance thirst for learning and helps in overall personality development	90 x.	107.	000	00 %	
4	It fulfills the demands of higher education	85%	5%	£0%,	00 %	00 x
5	It promote environmental awareness and cultural harmony	90%.	10 ×	00	007.	00%
6	Its objectives are clearly achieved	95%	05%	00/	00 %.	00 >
6	It promotes research ability	90	05%	05%	00 %	00 V
7	It represent social scenario	807.	20 %	90×	00 %	00 -





M. B. PATEL ARTS, COMMERCE & SCIENCE COLLEGE, SADAK ARJUNI

CERTIFICATE

This is certify that

F.Y.B.Sc has participated in bridge course organized by the Department of Chemistry student of

during academic year

Coordinator

Head of the department

Dist. Gondia, Pin Code - 441807



Department of Botany

Manoharbhai Patel College of Arts, Commerce & Science College, Sadak Arjuni

Dist. Gondia

Date: 02/07/2019

To,

Hon. Principal

Manoharbhai Patel College of Arts, Commerce & Science College, Sadak Arjuni

Dist. Gondia

Sub: Proposal for Bridge Course in Botany

Respected Sir,

With reference to above subject, the departments of Botany wish to organize a Bridge Course in Botany from academic year 2019-20. The Course duration is of 16 clock hours spread over 08 weeks (2 period per week) course is specially designed for the UG students will participate in the course. A detailed proposal is enclosed herewith this letter we request you to kindly sanction the permission and financial support to conduct course.

Yours Faithfully,

Prof. S. M. Akarsotany Head, Department of Betany

Sadak Arjuni

Principal Mancharbhai Patel Arts, Commerce

& Science College, Sadak Arjuni, Dist. Gondia, Pin Code - 441807



Course Proposal

Name of Courses	Value Added Course in
	"Rearing of Silk worm"
Courses Coordinator	Prof. Sunil M. AKARE
Duration	15 Weeks
	(total 30 clock hours, 2 hours per week)
Eligiblity	Students can do this course simultaneously with under graduation
Fees	Free
Target Group	B.Sc. Botany Students

Objectives of the Course:

The value added course aim to provide learner centric graded skill oriented training with primary objective of improving the employability skill of Botany students. The main objective of the program are-

- 1. To provide them with additional knowledge along with their curriculum.
- 2. To knowledge among about Personal industry.
- 3. To provide research ability of student.
- 4. To provide an opportunity to students to develop inter-disciplinary skills.
- 5. To increase interest towards life science.

Principal



Bridge Course:

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List of Students in Bridges Courses Year 2019 -2020

Sr. No.	Name of Students	Class
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2	Damini Moreshwar Rajgire	F.Y.B.Sc.
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5	Megha Ishru Panchabhai	F.Y.B.Sc.
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7	Shubham Hivraj Gajbhiye	F.Y.B.Sc.
8	Sindhutai Tejram Meshram	F.Y.B.Sc.
9	Trupti Duryodhan Gajabe	F.Y.B.Sc.
10	Vishakha Pralhad Pandhare	F.Y.B.Sc.



Manoharbhai Patel College of Arts, Commerce & Science College, Sadak Arjuni, Dist. Gondia

Department of BOTANY

Syllabus for Bridge Course

1. Living world:

- Basic principles of life
- Herbarium
- Botanical gardens
- Museum
- Biodiversity parks
- Taxonomic Key

2. Systematics of living organisms:

- Systematics
- Classification
- Three domains of life
- Chemotaxonomy
- Numerical taxonomy
- Cardiogram
- Phylogeny
- DNA Barcoding
- Nomenclature
- Mycoplasma

3. Kingdom plantae:

- Kingdom plantae
- Salient features of major plant group under cryptogams
 - A] Division: Thallophyta
 - B] Bryophyta
 - C] Pteridophyta
- Salient features of major plant group under cryptogams



- A] Gymnospermae
- B] Angiosperm
- Plant life cycle and alternation of generation
- 4. Cell structure and organization
 - Cell
 - Kinds of cell
 - Components of eukaryotic cell
- 5. Plant tissues and anatomy
 - Meristematic tissue
 - Classification of meristem
 - Permanent tissue
 - Cork cambium and secondary growth
 - A] Anatomy of dicot root
 - B] Anatomy of monocot root
 - C] Anatomy of dicot stem
 - D] Anatomy of monocot stem
 - E] Anatomy of dicot leaf
 - F] Anatomy of monocot leaf
- 6. Morphology of flowering plants:
 - Angiosperms
 - Angiosperms classification
 - Morphology: Root, stem, leaf, flower and fruit
 - Study of some important families
- 7. Photosynthesis:
 - Chloroplast
 - Nature of light
 - Mechanism of photosynthesis
 - Light reaction
 - Dark reaction
 - Photorespiration
 - C3, C4 and CAM cycle



- Factors affecting photosynthesis

8. Respiration:

- Mitochondria
- Structure of ATP
- Types of respiration (aerobic and anaerobic)
- Respiratory substrates and Respiration quotient
- Glycolysis
- Kreb's cycle
- Oxidative phosphorylation (ETS)
- Fermentation (alcohol and lactic acid)
- Photorespiration



Department of BOTANY

Time Table for Bridges Courses Students

Academic Year 2019-2020

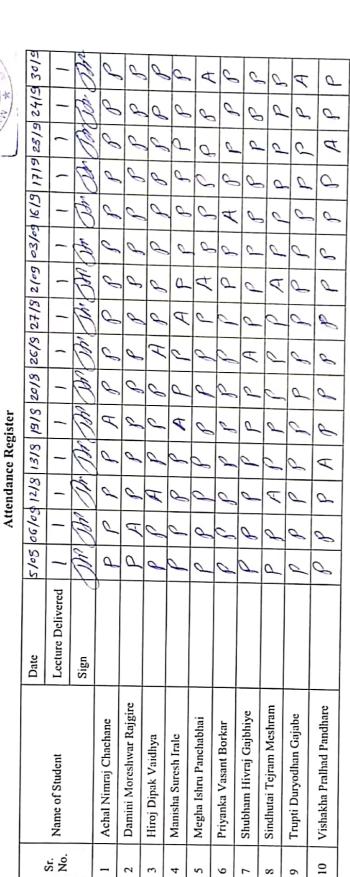
Time-Table

Sr. No	Time (Morning)	Mon	Tue	Wed	Thu	Frí	Sat
		BSC I					
1	8.00 to 8.50	SMA	SMA				
2	8.50 to 9.40			9	_		

SMA: Prof. S. M. Akare

Manoharbhai Patel College of Arts, Commerce & Science College, Sadak Arjuni, Dist. Gondia Gondia Education Society's

Commerce & Science Co Bridge Course 2019-20





Department of BOTANY

List of Students in Bridges Courses

Year 2019-2020

Sr. No.	Name of Students	Class
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2	Damini Moreshwar Rajgire	F.Y.B.Sc.
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9	Trupti Duryodhan Gajabe	F.Y.B.Sc.
10	Vishakha Pralhad Pandhare	F.Y.B.Sc.



Manoharbhai Patel College of Arts, Commerce & Science College, Sadak Arjuni, Dist. Gondia

Department of Botany

Bridge Course Test

Question Paper

Multiple Choice Questions

Time: 30 min	Marks: 20
Choose correct option	
Qu.1. What is the major difference between plant cell and an animal cell?	
a) Cell wall	
b) Cell membrane	
c) Eukaryotic nature of cells	
d) Genetic material	
Qu.2. Artificial classification of plant kingdom is based on	
a) Morphological characteristics	
b) Embryotic structure	
c) Ultra structure	
d) Filamentous structure	
Qu.3. Phylogenetic classification considers	
a) Morphological characteristics	
b) Embryotic structure	
c) Evolutionary relationships	
d) Ultra structure	
Qu.4. The word "Thallophyta" means	
a) plants that don't have well-differentiable structure	
b) plants that have large leaves	
c) plants that grow in colonies	
	200



d) plants that are filamentous
Qu.5. Which of the following acts as the energy currency of the cell?
a) Enzymes
b) ATP
c) Proteins
d) DNA
Qu.6. What is meant by cellular respiration?
a) Breakdown of water
b) Breakdown of air to consume energy
c) Breakdown of food materials to release energy
d) Breakdown of soil to release energy
Qu.7. Where does the photosynthesis take place in eukaryotes?
a) Mitochondria
b) Cytoplasm
c) Chloroplasts
d) Vacuoles
Qu.8. Viruses contain sheath made of
a) Nucleic acids
b) Chitin
c) Saccharides
d) Proteins
Qu.9. Which of the following is not related to the light reaction?
a) Also called Photochemical phase
b) Light absorption
c) Electron transport
d) Water splitting
Qu.10 discovered the two-pigment system theory of light reaction?



	a) Emerson	-
	b) Hill	
	c) Arnon	
	d) Mathew	
Qu.11	. Lichens are	
	a) symbiotic existence of blue-green algae and fungi	
	b) symbiotic existence of rhizobium bacteria in the roots of leguminous plants	
	c) co-existence of coral reef with zooxanthellae	
	d) existence of mycorrhiza along with leguminous plants	
Qu.12	. Which among the following is not a mode of asexual reproduction?	
	a) Budding	
	b) Fragmentation	
	c) Zoospores	
	d) Zygospores	,
Qu.13	. Coenocytic means	
	a) sharing of common cytoplasm	
	b) removal of plasma membrane	
	c) sharing of common nucleus	
	d) sharing of common hyphael wall	
Qu.14.	. Binomial nomenclature of Potato is	
	a) Solanum tuberosum	
	b) Ipomoea batatas	
	c) Phaseolus vulgaris	
	d) Daucus carota subsp. Sativus	
Qu.15.	Which of the following are first evolved plants with vascular tissues?	
	a) Cryptograms	
	b) Bryophytes	/
	The state of the s	



c) Thallophytes	4
d) Pteridophytes	
Qu.16. Leaf like structure in Pteridophytes that bear spores are called as	-
a) Sporophyte	
b) Pteridophylls	
c) Sporangia	
d) Sporophylls	
Qu.17. Megasporangium in Gymnosperms is also called as	
a) Macrosporangiate	
b) Nucellus	
c) Microsporangium	
d) Male strobili	
Qu.18. Vascular bundles are surrounded by	
a) Endodermis	
b) Bundle sheath cells	
c) Epidermis	
d) Hypodermis	
Qu.19. The central portion of the stem is called	
a) Vascular bundles	
b) Cortex	
c) Pith	
d) Ground tissue	
Qu.20. Water loss in its liquid phase from special openings of veins near the tip of gratermed as	ass blades is
a) guttation	
b) exudation	
c) girdling	
d) transpiration	
	0



Manoharbhai Patel College of Arts, Commerce & Science College, Sadak Arjuni, Dist. Gondia

Department of Botany

Bridge Course Test Answer key

Q.No.	Answer	Q.No.	Answer	Q.No.	Answer	Q.No.	Answer
1	a	6	С	11	a	16	d
2	a	7	С	12	d	17	b
3	С	8	d	13	a	18	b
4	a	9	С	14	a	19	С
5	b	10	a	15	d	20	a



Manoharbhai Patel College of Arts Commerce and Science, Sadak Arjuni, Dist. Gondia

Department of BOTANY

Students Feedback analysis on Bridge Course: 2019-20

Sr. No.	Index	Strongly agree	Agree	Partially agree	Disagree	Strongly disagree
1	Current syllabus is good for skill development and employability	90%	05%	05 %	00 %	00 %
2	It increases social awareness, moral values and ethics	80%	15 %	05%	00%	00%
3	It inculcates thirst for learning and helps in overall personality development	85%	05%	10%		00%
4	It fulfils the demands of higher education	90%	10%.	00%	00%	00%
5	It promotes environmental awareness and cultural harmony	80 %	10%	10%	00%	
6	Its objectives are clearly achieved	90%	00%	10%	00%.	00%
7	It has relevance with present social scenario	85 %	05%	10%	00%	00%
8	It promotes research ability	go 7.	10%	10%	00%	00%.

Principal



Manoharbhai Patel College of Arts, Commerce and Science College, Sadak Arjuni, Dist. Gondia

Department of BOTANY

Bridge Course Report

2019-2020

Every year at the beginning of the new academic year, we organize bridge courses on behalf of our department for the students from another faculty. This year also we started this course from dated 01/08/2019. Its detailed report is as follows. We have started this course in the department for those who have entered the first year of the B.Sc. and have not had chemistry as a subject before. For this, we selected students in class XII who did not belong to the Faculty of Science and whose English was not the subject. We have prepared this course for a total of 16 hours from 1st of August to 2nd of October 2019. A total of 10 students had participated in this course this year. In it we mainly teach the basics of English. That every BOTANY student should know. Accordingly, we explained to the students what is meant by BOTANY, its nature, scope, importance, and need for BOTANY. We took a 20 mark examination of all these students on 3rd October 2019 and based on that we tested the basic knowledge of the students and through this course we proved to the students how important BOTANY is as the main subject. All the 20 students completed this course with good marks. Through this course, we paved the way for those who were not previously subject to English and brought them into the mainstream by guiding them through this bridging course on how to gain momentum in the study of chemistry. This is the main purpose of this course. In this way we successfully implemented this course in the year 2019-20. For this, the course coordinator of the BOTANY Department, Asst. Prof. S. M. AKARE worked hard. In order to make the course successful helps and time to time provided guidance and interaction with the new students. Through this course, the mental strength or other faculty students was raised and the joy and excitement of participating in the BOTANY family was created in them. He got basic knowledge of chemistry through this course. In this way the course was completed. For your information, we are presenting the report of Bridge Course. Thank you.

Yours Faithfully

Department of Botany
M. B. Patel College,
Salak Ariuni

Principal



M. B. PATEL ARTS, COMMERCE & SCIENCE COLLEGE, SADAK ARJUNI Gondia Education Society's

CERTIFICATE

F.Y.B.Sc has participated in bridge course organized by the Department of Botany student of

during academic year

Coordinator

Head of the department

Principal



Department of Chemistry

Manoharbhai Patel College of Arts commerce & Science College

Tal. Sadak Arjuni Dist Gondia

To,

Hon., Principal

MB Patel College of Arts commerce & Science College Sadak Arjuni

Tal Sadak Arjuni Dist Gondia

Sub: Proposal for Bridge Course in Chemistry

Respected Sir,

With reference to above subject, the Departments of Chemistry wish to organize a Bridge Course in Chemistry from academic year 2019-2020. The Course duration is of 16 clock hours spread over 08 weeks (2 period per week) course is specially designed for the UG students will participate in the course. A detailed proposal is enclosed herewith this letter we request you to kindly sanction the permission and financial support to conduct course.

Yours Faithfully

Mr. Chandrakant V. Bisen

Department of Chemistry



Course Proposal:

Name of Courses	Bridge Courses in Chemistry
Courses Coordinator	Mr.Chandrakant V. Bisen
Duration	08 Week (total 16 o clock hours ,2 hours per week)
Eligiblity	Students do this courses simultaneously with graduation
Fees	Not Required Free

Objectives of the Course:

Give students the confidence and skills to successfully transition to college and new curriculum.

Methodology

A Curriculum is framed separately in each of the subjects, for Bridge Course. During the first week after the commencement of the classes, the bridge course curriculum is delivered to the students in various disciplines. A post bridge course test is conducted after the completion of bridge course syllabus to assess the ability of student's suggestions is given to students for improvisation.

DEPARTMENT OF CHEMISTRY



Bridge Courses

"The essence of education lies in drawing out the very best that is in you."

A bridge course for newly admitted students is conducted every year before the commencement of the first semester classes. The main objective of the course is to bridge the gap between subjects studied at Pre-university level and subjects they would be studying in Graduation. The syllabus for the course is framed in such a way that they get basic knowledge on the subjects which they would be learning through graduation.

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List of Students in Bridges Courses Year 2019-2020

Sr.No.	Name of Students	Class
1	Achal Nimorcy Chachane	F.Y.B.Sc
2	Pamiri Morreshwar Rajgire	F.Y.B.Sc
3	Hisroj Dipak Vaidhya	F.Y.B.Sc
4	Marisha Swresh Israle	F.Y.B.Sc
5	Megha Ishru Panchabhai	F.Y.B.Sc
6	Priyanka Vasant Borkar	F.Y.B.Sc
7	Shubham Hivorcy Crajbhiye	F.Y.B.Sc
8	Sindhutai Tejoram Meshoram	F.Y.B.Sc
9	Toupti, Duryodhan Crajabe	F.Y.B.Sc
10		F.Y.B.Sc

Syllabus for the students in Bridge Courses

Department of Chemistry

Year 2019-2020

1] Some Basic concepts of Chemistry

- General Introduction: Importance and scope of Chemistry
- Atomic structure : Atom, atomic and molecular mass, mole concept
- · Percentage Composition, empirical and molecular formula
- Chemical reaction, stoichiometry and calculations based on stoichiometry.

2] Organic Chemistry

- Some Basic Principles and Techniques
- · General introduction, classification of organic compound
- IUPA nomenclature of organic compounds
- Covalent bond, Inductive effect, electrometric effect, resonance and hyperconjugation
- Homolytic and Heterolytic bond fission of covalent bond
- Free radical, Carbocation, Carboanion, electrophiles, nuecleophile types of organic reactions.

3] Basic and Fundamental Biochemistry:

- Carbhoydrates: Definations, Types of Carbhohydrates with Example and Structure
- Protein :Defination Types of Protein with examples
- Nucleic Acids: Components Type of Nucleic acid with Structure of DNA and RNA.
- Lipids: Definations Types of Lipids with examples.
- Vitamins :Types of Vitamins, Source ,Deficiency Diseases
- Minerals examples and Function

4] Hydrocarbons

- Classification of Hydrocarbons
- Aliphatic Hydrocarbons: Alkanes- Nomenclature, isomerism, conformation (ethane only), physical properties, chemical reactions. Alkenes- Nomenclature, structure of double bond (ethene), geometrical isomerism, physical properties, methods of preparation, chemical reactions: addition of hydrogen, halogen, water, hydrogen halides (Markovnikov's addition and peroxide effect), ozonolysis, oxidation, mechanism of electrophilic addition. Alkynes Nomenclature, structure of triple bond (ethyne), physical properties, methods of preparation, chemical reactions: acidic character of alkynes, addition reaction of hydrogen, halogens, hydrogen halides and water. Nervous Tissue structure of neuron, function.
- Aromatic Hydrocarbons: Introduction, IUPAC nomenclature, benzene: resonance, aromaticity, chemical properties: mechanism of electrophilic substitution. Nitration, sulphonation, halogenation, Friedel Craft's alkylation and acylation, directive influence of functional group in monosubstituted benzene. Carcinogenicity and toxicity.

5] Physical Chemistry

- Thermodynamics: basic Definitions of laws of thermodynamics
- Electrochemistry: Concepts of Electolytic and Electrochemical cells
- States of Matter: Solid, Liquid, Gaseous state.

Principal Manoharbhai Patel Arts, Commerce & Science College, Sadak Arjuni,

Dist. Gondia, Pin Code - 441807

03500



Time Table for Bridges Courses Students

Year 2019-2020

Department of Chemistry

Theory Time Table

Sr.No	Time (Morning)	Mon	Tue	Wed	Thu	Fri	Sat
		BSC I					
1	8.00 to 8.50						
2	8.50 to 9.40				CVB		
3	9.40 to 10.30						
4	10.30 to 11.20			RNH			

CVB: Mr. Chandrakant V. Bisen

RNH: Mr. Ramdas N. Huse

Gondia Education Societies

Manoharbhai Patel College of Arts, Commerce and Science

Th-Sadak Arjuni, Dist-Gondia

Class: B.Sc. Sem-I Sub:-Chemistry Paper:-I+II Time:-30min Marks:-20

Note: - 1) All Question are Compulsory 2) All Questions are MCQ (Each Question carries 2 mark) 1. Neutron was discovered by -(a) J.J Thomson (b) Chadwick (c) Rutherford (d) Priestley 2. The nucleus of the atom consists of -(a) Protons and neutrons (b) Protons and electrons (c) Neutrons and electrons (d) Protons, neutrons and electrons 3. The radius of an atomic nucleus is of the order of-(a) 10^{-10} cm (b) 10^{-13} cm (c) 10^{-15} cm (d) 10^{-8} cm 4. The force of attraction between the particles of _____ matter is maximum. (a) Solid (b) Liquid (c) Gaseous (c) Non Of the above 5. The formal charge on carbanion is (d) + 2(a) + 1 (b) - 1 (b) 06. Which of the following is an extensive thermodynamics property (a) Specific heat capacity (b) Internal energy (d) Temperature (c) Pressure is a crystalline's basic repetitive structural unit. a) 3 b) 6 c) 14 d) 24 8. The study of reaction kinetics is called (a) Monomer b) Molecule c) Unit Cell d) Atom 9. Which Carbocation is most stable b) Secondary c) Tertiary d) Noon (a) Primary 10. Which bond is more stronger (a)Single (b) Double (c) Triple (d) None

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MANOHARBHAI PATEL COLLEGE OF ARTS COMMERCE AND SCIENCE SADAK ARJUNI

MBPC

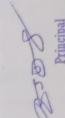
Tal Sadak Arjuni, Dist Gondia

Department of Chemistry

Attendance Register

Bridges Courses 2019-2020

Sr.		Date	7	1/2 3/0	3/05/0	6	9,12,13,2923/1,	52	200	23/	1	2	787	3	7	2	18	A
No.	No. Name Of Student	Lecture Delivered	0 -1	0 -1	9 7	7	4	2 7	3 2	20-1	7	5 +		2) -1	0	0	7-1	5
		Signature	Œ	3	8	8	3	8	8	0	0	1000	0	8	8	0	6	163
1	Ached Nimbrey Chackerne		2	2	4	2	0	a	4	19	0	0	0	2	2	1 4	19	1
N	2 Damin' Morreshundajging		4	0	0	2	4	0	2	A	0	9	9	0	4	0	7	Io
3	Hirry Dipah Vardlya		4	6	9	2	2	4	D . H	9	0	9	0	9		2	1	To
5	4 Marrisha Surregy Triale		0	d	0	9	0	0	2	2	9	9	DA	A A	0	9	13	To
N	5 Megha-Ishru Parehabha		0	6	9	9	0	2	2	9	a	2	9	2	2	-	2	T
9	6 posigenta vasant Baska	7	0	82	2	2	4	S	9	0		1			-	0	7	10
-	Shubbarn Hivaray Graybhiye		8	0	0	0	0	2	2	8	0	9	0	2	4	0	A	To
80	8 Sindhutay Tejoran Michoran		0	0	0	2	4	4	9	2	B	4	40	60	de de	0	P +	To
0)	9 Tough Duryodhen Gride		2	0	A	5	2	2	2	de	9 d	8	4	4	00	0	7	
			8	2	2	8	4	2	2	9	D	PP	9	000	4	AP		9



Manoharbhai Patel Arts, Commerce & Science College, Sadak Arjuni,

Gondia Education Society's

Manoharbhai Patel College of Arts, Commerce and Science College, Sadak Arjuni

Department of Chemistry Bridge Course Report: 2019-2020

Every year at the beginning of the new academic year, we organize bridge courses on behalf of our department for the students from another faculty. This year also we started this course from dated 01/08/2019. Its detailed report is as follows. We have started this course in the department for those who have entered the first year of the B.Sc. and have not had chemistry as a subject before. For this, we selected students in class XII who did not belong to the Faculty of Science and whose was not the subject. We have prepared this course for a total of 16 hours from 01 of August to 02 of October 2019. A total of 09 students had participated in this course this year. In it we mainly teach the basics of Chemistry. That every Chemistry student should know. Accordingly, we explained to the students what is meant by Chemistry, its nature, scope, importance, and need for Chemistry. We took a 20 mark examination of all these students on 03 October 2019 and based on that we tested the basic knowledge of the students and through this course we proved to the students how important Chemistry is as the main subject. All the 09 students completed this course with good marks. Through this course, we paved the way for those who were not previously subject and brought them into the mainstream by guiding them through this bridging course on how to gain momentum in the study of chemistry. This is the main purpose of this course. In this way we successfully implemented this course in the year 2019-2020. For this, the course coordinator of the Chemistry Department, Asst. Prof. C. V. Bisen worked hard. In order to make the course successful helps and time to time provided guidance and interaction with the new students. Through this course, the mental strength or other faculty students was raised and the joy and excitement of participating in the Chemistry family was created in them. They got basic knowledge of chemistry through this course. In this way the course was completed. For your information, we are presenting the report of Bridge Course. Thank you.

Yours Faithfully

MBPC

Asst. Prof. C. V. Bisen

Bridge Course Co-cordinator

Principal

Manoharbhai Patel Arts, Commerce

& Science College, Sadak Arjuni,
Dist. Gondia, Pin Code - 441807



Feedback on Bridge Courses 2019-2020

Analysis Report of Students

Department of Chemistry

Sr. No	Index	Strongly Agree	Agree	Partially Agree	Disagre	Strongly Disagree
1	Current syllabus is good for skill development and employability	86%	T0 %	tox	00%	00 %
2	It increases social awareness moral values	80%	201.	60%	00 %	00%
3	It enhance thirst for learning and helps in overall personality development	90 x.	10 7.	000	00 %	
4	It fulfills the demands of higher education	85%	5%	£0%,	00 %	00 x
5	It promote environmental awareness and cultural harmony	90%.	10 ×	00	007.	00%
6	Its objectives are clearly achieved	95%	05%	00/	00 %.	00 >
6	It promotes research ability	90	05%	05%	00 %	Q0 /
7	It represent social scenario	807.	20 %	90×	00 %	00 -

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Dist. Gondia, Pin Code - 441807





Gondia Education Society's

M. B. PATEL ARTS, COMMERCE & SCIENCE COLLEGE, SADAK ARJUNI

CERTIFICATE

This is certify that

F.Y.B.Sc has participated in bridge course organized by the Department of Chemistry student of

during academic year

Coordinator

Head of the department

Dist. Condia, Pin Code - 441807



Department of ZOOLOGY

MB Patel College of Arts commerce & Science college

Tal. Sadak Arjuni Dist Gondia

To

Hon., Principal

MB Patel College of Arts commerce & Science College Sadak Arjuni

Tal Sadak Arjuni Dist Gondia

Sub: Proposal for Bridge Course in ZOOLOGY

Respected Sir,

With reference to above subject, the Departments of Zoology wish to organize a Bridge Course in zoology from academic year 2019-2020 The Course duration is of 16 clock hours spread over 08 weeks (2 period per week) course is specially designed for the UG students will participate in the course. A detailed proposal is enclosed herewith this letter we request you to kindly sanction the permission and financial support to conduct course.

Yours Faithfully

Department of Zoology

Principal

Manoharbhai Patel Arts, Commerce & Science College, Sadak Arjuni,

Dist. Condia, Pin Code - 441807



Course Proposal:

Name of Courses	Bridge Courses in Zoology
Courses Coordinator	Mr.Nilesh D Gorghate
Duration	08 Week (total 16 o clock hours ,2 hours per week)
Eligiblity	Students do this courses simultaneously with graduation
Fees	Not Required Free

Objectives of the Course:

Give students the confidence and skills to successfully transition to college and new curriculum.

Methodology

A Curriculum is framed separately in each of the subjects, for Bridge Course. During the first week after the commencement of the classes, the bridge course curriculum is delivered to the students in various disciplines. A post bridge course test is conducted after the completion of bridge course syllabus to assess the ability of student's suggestions is given to students for improvisation.

Principal

Manoharbhai Patel Arts, Commerce & Science College, Sadak Arjuni Dist.Condia, Pin Code-441807

DEPARTMENT OF Zoology

Bridge Courses



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List of Students in Bridges Courses Year 2019 -2020

Sr.No.	Name of Students	Class
1	A. N. Chachane	F.Y.B.Sc
2	D.M.Raighe	F.Y.B.Sc
3		F.Y.B.Sc
4		F.Y.B.Sc
5		F.Y.B.Sc
6		F.Y.B.Sc
7		F.Y.B.Sc

- CATS

Syllabus for the students in Bridge Courses

Department of Zoology

Year 2019-2020

1] Cell structure and Organization

- Defination ,Discovery ,Concept of Cell
- Type of Cell: Prokaryotic and Eukaryotic Cell
- Structure of Prokaryotic Cell and Cell Organelle
- Structure of Eukaryotic Cell and Cell Organelle
- Cell Division : Mitosis and Meiosis

2] Systematics of Living Organism

- Taxonomy :Definition Concept
- Type of Taxonomy
- Taxonomic Rank
- Five Kingdoms
- Study of Animal Kingdom :Class of Animal Kingdom

3] Basic and Fundamental Biochemistry:

- · Carbhoydrates: Definations, Types of Carbhohydrates with Example and Structure
- Protein :Defination Types of Protein with examples
- Nucleic Acids: Components Type of Nucleic acid with Structure of DNA and RNA.
- Lipids: Definations Types of Lipids with examples.
- Vitamins : Types of Vitamins, Source , Deficiency Diseases
- · Minerals examples and Function

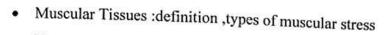
4] Animal Tissue

- · Defination ,Concept ,Types of Animal Tissue
- Simple Epithelial tissue, Definition, types of Protein with examples.
- Connective Tissue :definition ,Types of Connective Tissues

Principal

Manoharbhai Patel Arts, Commerce





Nervous Tissue structure of neuron, function.

5] Anatomy and Physiology

- Digestive System
- Respiratory System
- Excretory System
- Nervous System
- Circulatory System
- Reproductive System

6] Endocrinology Defination of gland and types of gland

- Pituitary Gland
- Thyroid Gland
- Adrenal Gland
- Gonads Hormone of Testis and Ovary

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<u>Time Table for Bridges Courses Students</u>

Year 2019-2020

Department of Zoology

Theory Time Table

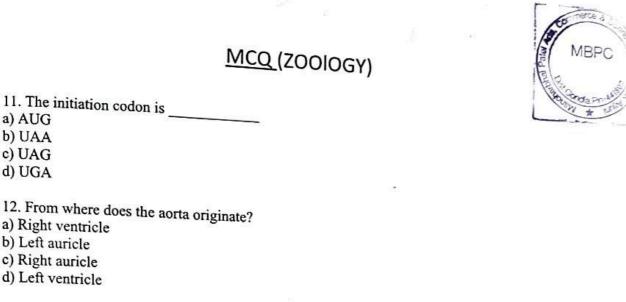
Sr.No	Time (Morning)	Mon	Tue	Wed	Thu	Fri	Sat
		BSCI	BSCI	BSCI	BSCI	BSCI	BSCI
1	8.00 to 8.50	NDG	NDG	NDG	NDG	NDG	NDG
2	8.50 to 9.40	VKS	VKS	VKS	NDG	NDG	
3	9.40 to 10.30	VKS	NDG	NDG	VKS	NDG	VKS
4	10.30 to	NDG	VKS	VKS	VKS	NDG	VKS
	11.20		CONTRACTOR OF		7465	NUG	VKS

NDG: Mr.Nilesh D Gorghate

VKS: Dr.VK Sangode

Principal

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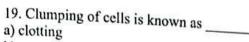
- 13.. The Yolky side of Egg is called
- a. Animal Pole
- b. Vegetal Pole
- c. Both of theses
- d. None of the above
- 14.Blastocoel cavity found in
- a. Morula
- b. Gastrula
- c. Blastula
- d. None of the above
- 15.. Biological Clock is controlled bygland.
- a. Adrenal
- b. Pitutary
- c. Hypothalmic
- d. None of the above
- 16.. Stem Cell can be found in
- a. Bone marrow
- b. Muscles
- c. Blood
- d. Both A and C
- 17.. Normal life span of human RBCs is
- a) 115-120 Days
- b) 100-105 days
- c) 60-80 days
- d) 40-60 days
- 18. Which of the following plasma protein is involved in coagulation of blood?
- a) Albumin

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Manoharbhai Patel Arts, Commerce





- c) Fibrinogen
- d) Amylase



- b) mutation
- c) agglutination
- d) glutathione
- 20. The universal blood donors for the ABO system are type:
- b) B
- c) O
- d) A

Answer:

Answer	O . No.	Answer	
Α	16	Δ	
Α	17		
В	18	C	
С	19	C	
С	20	C	
	A A	A 16 A 17 B 18 C 19	A 16 A A A B 18 C

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& Science College, Sadak Arjuni,
Dist. Condia, Pin Code - 441807

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MB PATELCollege of Arts, Commerce and Science College, Sadak Arjuni

Department of Zoology

Bridge Course Report

2019-2020

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Yours Faithfully

MRPC

Principal
Manoharbhai Patel Arts, Commerce





M. B. PATEL ARTS, COMMERCE & SCIENCE COLLEGE, SADAK ARJUNI Gondia Education Society's

CERTIFICATE

This is certify that

F.Y.B.Sc has participated in bridge course organized by the Department of Zoology during academic year

Coordinator

Head of the department

Principal Principal

& Science College, Sadak