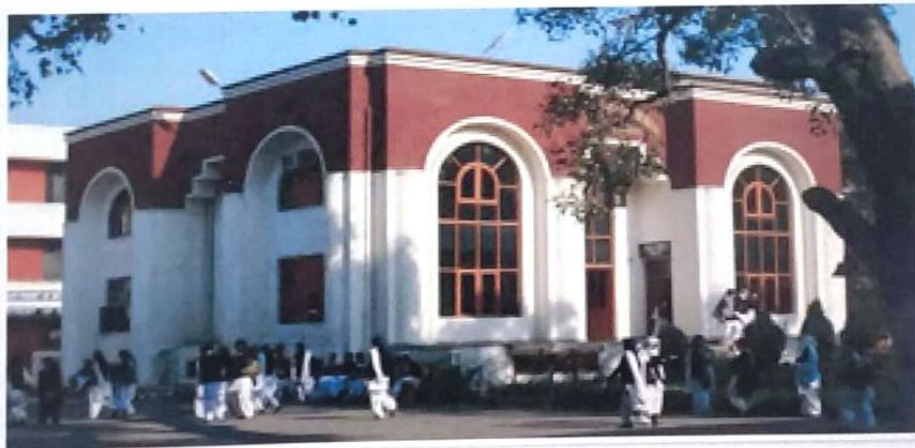




**CHOICE BASED CREDIT SYSTEM (CBCS)**  
**WITH**  
**LEARNING OUTCOMES BASED CURRICULAR FRAMEWORK (LOCF)**  
**FOR**  
**B. A/B.Sc. GEOGRAPHY**  
**UNDERGRADUATE PROGRAMME**  
**(EFFECTIVE FROM ACADEMIC YEAR 2021-2022)**



**DEPARTMENT OF GEOGRAPHY**  
**GOVERNMENT COLLEGE FOR WOMEN**  
**PARADE GROUND**  
**JAMMU- 180001**

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## ACKNOWLEDGEMENT

We take this opportunity to express our heartfelt gratitude to all the personalities to make the syllabus restructuring 2021 a success. I express profound gratitude to the honorable secretary, Higher Education Department, Govt. of J&K, worthy Principal *Dr S.P Saraswat*, external and internal members, university nominee, for their sincere cooperation and guidance during the restructuring process.

We hereby place on record our whole hearted gratitude to *Prof. Balbir Kumar* (Convener B.O.S) *Prof. Anuradha Sharma*, Head of Department (HOD) Geography, Jammu University, *Dr. Rakesh Jasrotia*, Assistant Professor, M.A.M College, Jammu (External member), *Dr. Nisha*, assistant Professor G.G.M Science College, Jammu for their timely help and suggestions.

We are also grateful to the non-teaching staff in making this meeting a success. The novel ideas proposed during BOS meeting have been incorporated in the syllabus. We also take the opportunity to express our gratitude to all the academicians, professionals, stakeholders who gave valuable suggestions in this regard.

**Dr. Shivani Walia**  
&  
**Dr. Mubashir Jamil**

Department of Geography

GCW Parade, Jammu.

## INTRODUCTION


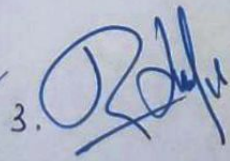
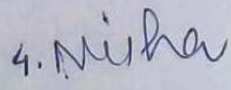
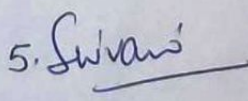
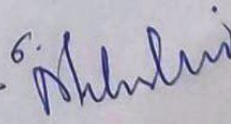
The Choice Based Credit System (CBCS) offers a uniform structure to the undergraduate curriculum. The B.A./B.sc programme in Geography offers a choice of varied papers covering theoretical, practical and applied aspects of the discipline. It is designed to cover both traditional and contemporary framework of study, thus giving a wide scope to the learners to apply their knowledge and skills in real scenarios. Teaching-learning methods have also evolved from purely lecture mode to demonstrative techniques of knowledge enabling process.

The main objective is to develop an aptitude towards erudition that is rich in its content as well as it delivers the requirement of the present day society and industry. The curriculum has been carefully designed to include conceptual, practical, experiential and skill building component.

Govt. College for Women, Parade Ground Jammu, An autonomous College has introduced the choice based credit system (CBCS) from the academic year 2016-17. But as per the UGC and the feedback from the stakeholders, the syllabus needs some modifications and addition to meet the requirements legally and technically. The syllabus is then modified and one of the draft is proposed by the board of studies of Geography is hereby submitted for approval to the Academic Council and Governing body.

## AIMS AND OBJECTIVES

A curriculum course content and assessment of scholastic achievement play complimentary role in shaping the education. The committee is of the view that members should report and encourage the broad instructional goals such as giving knowledge of the discipline of Geography, theory and techniques, concepts and general principles. They should also support the ability to ask physical questions and to obtain the answers to physical questions by the use of

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quantitative and qualitative reasoning and by the experimental investigations. The important student friendly attributes including designing, creativity, curiosity and deep understanding levels of Geography to other disciplines and to social issues should also be given encouragement. With these things in mind, we aim to provide a firm foundation in every aspect of Geography and to explain the broad spectrum of modern trends in Geography.

The Programme also aims to develop the following abilities:-

1. To help the pupils to acquire knowledge of their physical and social environment and thus to broaden their outlook.
2. To develop in them an understanding of basic concepts, principles and theories relating to geographical phenomena.
3. To develop the skills of reading maps and globes, to develop drawing and measuring skills, and to develop the skill of using and manipulating geographical instruments.
4. To develop scientific attitude and to develop the ability to draw valid conclusions and independent thinking.
5. To acquaint the pupils with the living conditions of people in different parts of the globe.
6. To develop in pupils an understanding of how environment and climatic factors have influenced our life.
7. To develop their ability to draw conclusions and to generalize.
8. Providing best facilities in the department to attract outstanding students from all background.

### OBJECTIVES

Following are the main objectives of the Programme:-

1. To provide deep knowledge of scientific and technological aspects of Geography.
2. Update students with recent and technological developments.

1. *[Signature]* 2. *[Signature]* 3. *[Signature]* 4. *Neelha* 5. *Sivans* 6. *Mukulir*

3. Enrich students through programmes such as seminars, workshops, quizzes etc.
4. Train students to a level to compete for seats for advanced degrees such as M.A/ M.Sc. and other related disciplines.
5. The students also learn hand on skills to prepare building disaster plans, community disaster preparedness and also awareness creation.
6. They will also develop an understanding of global issues from economic, social, environmental and political perspectives, which has relevance in further studies all across the globe.
7. They also develop effective communication skills, team work, travel exposure and zeal of investigation and exploration. The learners can greatly contribute to the subject through teaching, research and field oriented studies.

### DURATION OF THE PROGRAM

The duration of the undergraduate program is six semester. There shall be two semester in the academic year. The odd semester (Sem- I, III and V) commence from 15th of July, every year and the even semester (Sem- II, IV and VI) commences in the month of January, every year. Between both the types of semester, there is a break of one and a half month called 'summer vacation' which commences from 1<sup>st</sup> of June to the 15th of July, every academic year. The students may be permitted to complete the program on valid reason, within a period of six continuous semesters from the date of commencement of first semester of the program.

1. Prithi 2. Shane 3. Rahul 4. Nisha 5. Sivas 6. Mulhar

**EVALUATION OF VARIOUS COMPONENTS IN THE CURRICULUM AND MARKS DISTRIBUTION FOR INTERNAL AND EXTERNAL EVALUATION**

The final end semester examination shall be conducted by the college at the end of each semester. Internal evaluation is to be done by the internal assessment test taken one month before the start of final end semester examination and evaluation of attendance.

For all papers, internal and practical examination is to be taken before and after the start of final end semester examination. Thus the overall marks distribution for external and internal theory examination as well as practical examination is shown below.

**1. For all theory papers**

a. Marks of external examination= 80

b. Marks of internal evaluation= 20

**External Pattern:** The question paper shall be of 80 marks. There will be 3 sections in the question paper. Section **A** contains 5 short answer type questions each of 3 marks one from each unit. Section **B** contains 5 medium type answer question each of 7 marks one from each unit. Section **C** contains 5 long answer type question each of 15 marks one from each unit. Candidate has to attempt all questions from section **A&B** and 2 questions from section **C**.

Component of internal evaluation of theory	Marks
Attendance	05
Assessment Test/ Assignment Test	15
Total	20

**2. For all Practical Papers**

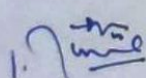
a. Marks of external examination= 25

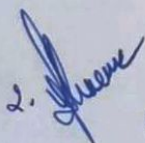
b. Marks of internal evaluation= 25

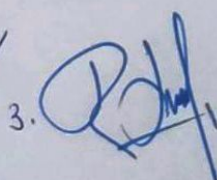
**Internal Practical Examination:**

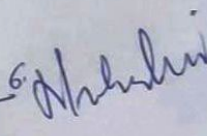
All the three components of internal assessments are mandatory

Components of internal evaluation of Practical	Marks
Attendance	05
Test	09
Lab Involvement	11
Total	25

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The practical file related to the number of examination performed must be duly signed by the teacher in charge and authenticated by the HOD Geography for appearing in the external practical examination. Certified record should be produce.

#### External Practical Examination:

For all the practical papers, there will be an external evaluation. The external examination will be appointed by the Principal of the college in consent of HOD in charge. There will be an internal examiner who will be appointed by the head of the department. The examination will be of 03 hour duration and the various components for the evaluation of external examination are given below.

Components of external evaluation of Practical examination	Marks
Test	18
Practical Record File/Viva-Voice	4+3=7
Total	25

#### 3. Assignments

Assignments are to be done for all the semesters. At least one assignment should be done in each semester for all the theory courses.

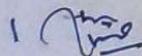
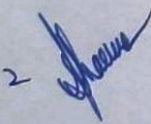
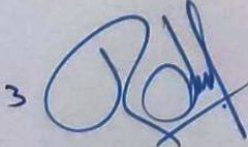
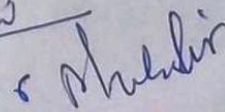
#### 4. Internal Assessment

One internal test paper is to be taken in each semester for each theory courses. The evaluation of all the components is to be published and acknowledged by the candidates. All the documents of internal assessments are to be kept in the custody of the convener of the internal assessment examination and shall be made available for verification as and when required. The responsibility of evaluating the internal assessment is vested on the teacher in charge.

#### 5. Attendance Evaluation

For all the courses- Theory and Practical

Percentage of Attendance	Marks
>90%	05
85%-90%	04
80%-85%	03
75%-80%	02
<75%	Ineligible

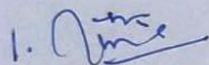
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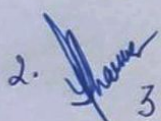


## CONSOLIDATED SCHEME FOR SEMESTER-III and IV

B.A/B.Sc. Geography Programme

Sem.	Course Code	Course Title	Course Category	Credits	Total Credits
III	UGGTC-301	1. Climatology and	Core	04	06
	UGGTC-302	Oceanography 2. Quantitative Techniques in Geography	Core	02	
IV	UGGTC-401	1. Geography of India	Core	04	06
	UGGTC-402	2. Cartography-III	Core	02	

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2. 

3. 

4. Nisha

5. Swras

6. Shubhvir

**DETAILED SYLLABUS OF SEMESTER-III AND SEMESTER-IV FOR  
THE SESSION (2021-22, 2022-23, 2023-24)**

**Semester- III  
Course Code: UGGTC-301**

**Theory**

**External Examination: 80 marks**

**Duration- 3 Hours**

**Internal Examination: 20 marks**

**Title: Climatology and oceanography**

**Course Objectives:**

1. Various dimensions of climatology like structure and composition.
2. Detailed analysis of global atmospheric pressure and wind system.
3. Understanding of the concept of oceanic topography.

**Learning Outcomes:**

1. Detailed exposure of climatology and oceanic relief features.
2. In-depth knowledge of upper atmospheric conditions and cyclonic features.
3. Understanding the characteristics of climatic regions

**Course Content**

**Unit- 1**

- 1.1 Climatology: Concept and definition; Elements of Weather and Climate..
- 1.2 Composition and Structure of Atmosphere.
- 1.3 Insolation; factors affecting insolation and Global Heat Budget.
- 1.4 Temperature: Vertical and Horizontal distribution of Temperature.

**Unit- II**

- 2.1 Atmospheric Pressure: Vertical and Horizontal distribution of Pressure.
- 2.2 Winds: Causes and Types of Winds.
- 2.3 Humidity and Precipitation. Concept and Types
- 2.4 Clouds: Formation and Types of Clouds.

1. Time 2. Sharma 3. Rohit 4. Nisha 5. Sivani 6. Mukulini

**Unit- III**

- 3.1 Air Masses: Concept, Factors and Classification of Air Masses.
- 3.2 Fronts: Origin and Types of Fronts.
- 3.3 Cyclones: Causes and Distribution of Tropical and Temperate Cyclone
- 3.4 Climatic classification: Basis and types of Koppen's Climatic classification.

**Unit- IV**

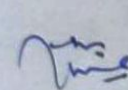
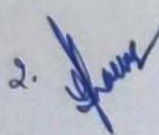
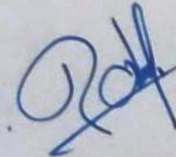
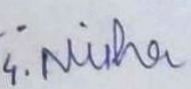
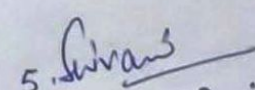
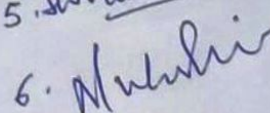
- 4.1 Configuration of Ocean Floor: Continental Shelf, Continental Slope, Deep Sea Plain and Ocean Deep.
- 4.2 Oceanic Temperature: Vertical and Horizontal distribution of Temperature.
- 4.3 Oceanic Salinity: Factors and Distribution of Salinity.
- 4.4 Oceanic Currents: Causes and Types of Atlantic and Indian Ocean Currents.

**Unit- V**

- 5.1 Tides: Origin and Types of Tides.
- 5.2 Coral Reefs: Origin and Types of Coral Reefs.
- 5.3 Ocean Deposits: Sources, Types and Classification of Ocean Deposits.
- 5.4 Major Marine resources.

**Books Recommended**

1. Gabbler R.E, Petersen J.F. and Trapasso, L.M, 2007: Essential of Physical Geography (8th Edition), Thomposon, Brooks /Cole, USA.
2. Garrett N. 2000: Advanced Geography, Oxford University Press.
3. Strahler A.N. and Strahler A.H, 2008: Modern Physical Geography, John Wiley and Sons, New York.
4. Singh Savindra: Physical Geography, Prayog Pustak Bhawan Allahabad 2016
5. Singh. Savindra: Climatology, Prayag Pustak Bhawan Allahabad.
6. Sharma R.C & Vatal M, Oceanography for Geographers. (2011)
7. D.S LAL, Climatology, Prayag Pustak Bhawan Allahabad.
8. Sidharta K, Oceanography, 1999, Kalyana Publication, New Delhi

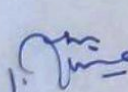
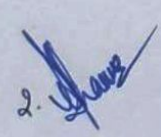
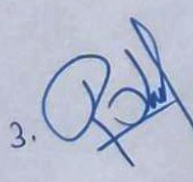
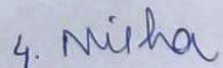
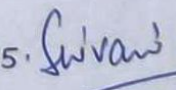
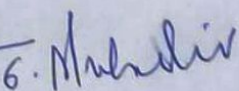
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**Semester- III****Course Code: UGGTC-302****Total marks: 50****Practical****External Examination: 25 marks****Duration- 3 Hours****Internal Examination: 25 marks****Title: Quantitative techniques in Geography****Course Objectives:**

1. The concept of quantitative information in general and Geographical data in particular. The sampling methods' application for data collection purposes.
2. The ways to handle the collected data through classification, tabulation and stigmatization. The data presentation using graphical and diagrammatic ways.
3. To calculate different averages on data and to identify the variations in data.
4. To compute relations and impacts among the data series.
5. The concept of probability particularly normal curve

**Learning Outcomes:**

1. To differentiate between qualitative and quantitative information.
2. To know the nature of various data , different sources and methods of data collection
3. To apply sampling methods for data collection.
4. To classify, summarize and produce various types of data tabulations.
5. To present data through graphical and diagrammatic formats.
6. To apply different forms of averages, their relevance on descriptive data and geographical descriptive data as well.
7. To analyze the variations in spatial and non-spatial data.

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## Course Content

### Unit-I

- 1:1 Quantitative techniques: Introduction and Significance.
- 1:2 Statistical Data: Definition, types, sources and their methods of collection.
- 1.3 Tabulation of geographic data.

### Unit-II

- 2:1 Central Tendency and Measures of Dispersions: Definition and its application in geography
- 2.2 Measure of central tendency and Dispersions (Methods) and their merits and demerits.
- 2.3 Quantitative Analysis: Mean, Median, Mode, Mean Deviation, Quartile Deviation and Standard Deviation.

### Unit-III

- 3:1 Correlation: Definition and its role in geography
- 3.2 Measure of Correlation (Methods) and their merits and demerits.
- 3.3 Quantitative Analyses: Karl Pearson Product Moment Method and Spearman Rank Correlation Method.

### Books Recommended

1. Alvi Zamir, Statistical Geography, Rawat Publications, Jaipur and New Delhi.
2. Ishtiaque M, A Textbook of Practical Geography, Heritage Publishers, Ansari Road, Daryaganj, New Delhi.
3. Mahmood Aslam, Statistical Methods in Geographical Studies, Rajesh Publications, New Delhi, 2002

1. Tune 2. Sharma 3. Prakash 4. Nisha 5. Sivani  
6. Maheshini

**Semester- IV****Course Code: UGGTC-401****Theory****External Examination: 80 marks****Duration- 3 Hours****Internal Examination: 20 marks****Title: Geography of India****Course Objectives:**

1. Various dimensions of the geographical features of India and their spatial distribution.
2. Detailed analysis of economic resources of India
3. Understanding of regional divisions of India.

**Learning Outcome:**

1. Detailed exposure to the human and physical features of India.
2. In-depth knowledge of different resource base of India.
3. Understanding socio-cultural base of India

**Course Content****Unit- 1**

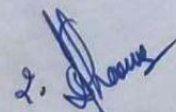
- 1.1 India In the context of Asia
- 1.2 Physiographic divisions of India
- 1.3 Drainage system of India.
- 1.4 The mechanism of Indian monsoon: Jet streams, western disturbances.

**Unit- II**

- 2.1 India soils: types, characteristics and distribution
- 2.2 India vegetation: types, characteristics and distribution.
- 2.3 Mineral resources of India- iron ore, mica and manganese.
- 2.4 Power resources of India-coal and petroleum.

**Unit- III**

- 3.1 Indian agriculture; characteristics, types and problems.
- 3.2 Green revolution and its impact on Indian agriculture.

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4. *Nisha*

5. *Sivani*

6. *Mukulini*

3.3 Major cereal crops: wheat and rice- distribution and production.

3.4 Major cash crops: Cotton, sugarcane, tea and coffee- distribution and production.

#### Unit- IV

4.1 Spatial distribution of population, density and growth and factors responsible for uneven distribution.

4.2 Recent population policy of India.

4.3 Migration causes and consequences.

4.4 Urbanisation in India; trends and disparities.

#### Unit- V

5.1 Regionalization of India: Its basis; physiographic and economic regionalisation.

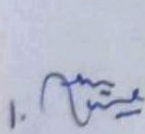
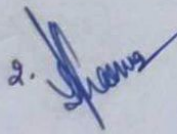
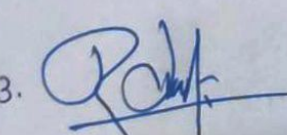
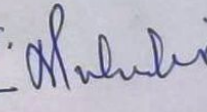
5.2 Factors of localization of Iron and steel and cotton industries.

5.3 Industrial Regions of India.

5.4 New Industrial policy of India.

#### Books Recommended

1. Deshpande, C.D: India- A Regional Interpretation, Northern Book Centre, New Delhi, 1992.
2. Ginsburg N: The Pattern of Asia, Prentice Hall, Englewood cliffs.
3. Govt. of India: National Atlas of India, NATMO Publication, Calcutta.
4. Govt. of India: The Gazetteer of India, Vol. I & III Publication Division, New Delhi.
5. Negi, Balbir Singh: Geography of India, Kedarnath Ramnath, Meerut, Delhi, 1993.
6. Singh, Gopal: India (Latest Edition), Atma Ram & Sons, Delhi.
7. Singh, Jagdish: India: A Comprehensive Systematic Geography, Radha Publications, New Delhi, 2003.
8. Singh, R.L: A Regional Geography, National Geographical Society of India, Varanasi, 1995.
9. Spate, O.H.K. and Learmonth, A.T.A: India and Pakistan- Land, People and Economy, Methuen & Co., London, 1967.

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**Semester- IV**  
**Course Code: UGGTC-402**

**Total marks: 50**

**Practical**

**External Examination: 25 marks**

**Duration- 3 Hours**

**Internal Examination: 25 marks**

**Title: Cartography III**

**Course Objectives:**

1. Create thematic maps through thoughtful application of Cartographic conventions;
2. Enhance understanding of the concepts regarding thematic mapping techniques
3. Better understand preparation and interpretation of thematic maps

**Learning Outcome:**

This is a practical, hands-on course; when you have completed it, you will be able to:

1. Explain how maps work, conceptually and technically and will be able to understand science and art of cartography
2. Recognize the benefits and limitations of Diagrammatic Data Presentation.
3. Understand and perform interpretation of thematic maps.

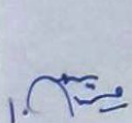
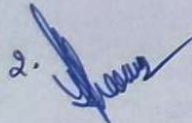

**Course Content**

**Unit-I**

- 1.1 Cartographic symbols- types and application.
- 1.2 Cartographic diagrams; Pie diagram, proportional and concentric circles.
- 1.3 Representation of population data by cartographic diagram.

**Unit-II**

- 2.1 Representation of agricultural data by cartographic diagram.
- 2.2 Cartographic methods and their application; isopleths, choropleth, Dot, chorochromatic.
- 2.3 Representation of population data (dist. Density and growth) by dot and choropleth method.

1.  2.  3.  4. Nisha 5. Swara 6. Malvika

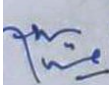
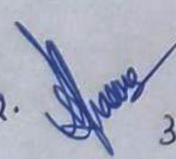
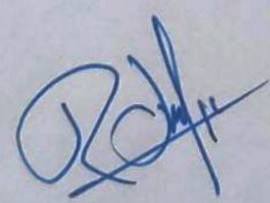
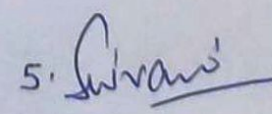
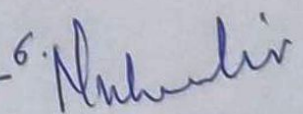


**Unit-III**

- 3.1 Representation of distribution maps with the help of chorochromatic and choroschematic techniques.
- 3.2 Representation of Climatic data with the help of isopleths method.
- 3.3 Physical survey and its report.

**Books Recommended**

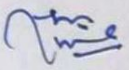
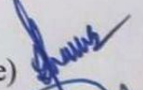

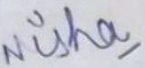
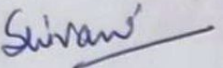
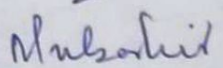
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2. Campbell, J.B. 1996(2nd edition). Introduction to Remote Sensing. Taylor and Francis, London.
3. Curran, P. 1985. Principles of Remote Sensing. Longman, London.
4. Sabins, J.F.F. 1997. Remote Sensing: Principles and Interpretation. W.H. Freeman & Co., New York.
5. Khullar DR (2017): Essentials of practical Geography, New Academic publishing co., Jalandhar.
6. Mishra R.P. and Rameh A, Fundamentals of Cartography Mcmillan Co. NewDelhi, 1986.
7. Pal, S.K., Geography for Geoscientists -Techniques and Concept Publishing, New Delhi, 1998.
8. Robinson, A.H. et.al : Elements of Cartography, John Wiley& sons, U.A.A,1995.
9. Sarkar A., Practical Geography: S Systematic Approach, Oriental Logman, Calcutta, 1997.
10. Singh R.L. and Dutt R.K., Element of Practical Geography, Kalyani Publishers, New Delhi, 1979.

1.  2.  3.  4. Miha 5.  6. 

## MINUTES OF THE MEETING

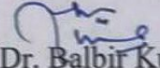
A meeting of the Board of Studies was held in the conference room of the college on 13-11-2021. The agenda of the meeting was revision of syllabi of B.A/B.Sc semester-III and Semester-IV for the Academic session 2021-22, 22-23 and 23-24 respectively.

The board of studies deliberated at length the course of syllabi under CBCS scheme for III<sup>rd</sup> and IV<sup>th</sup> semester. Following board members were present in the meeting

1. Dr. Balbir Kumar (Convener) 
2. Prof Anurada Dubey (University nominee) 
3. Dr. Rakesh Jasrotia (external member) 
4. Dr. Nisha (External member) 
5. Dr. Shivani Walia (member) 
6. Dr. Mubashir Jamil (member) 

The suggestions and modifications to the syllabus were incorporated and thus all the board members agreed to the above mentioned proposal.

The meeting was concluded with a vote of thanks

  
Dr. Balbir Kumar (Convener)