



MAHARSHI DAYANAND UNIVERSITY ROHTAK

(Established under Haryana Act No. XXV of 1975)

'A+' Grade University accredited by NAAC

REVISED NOTICE FOR INVITING SUGGESTIONS/COMMENTS ON THE DRAFT SYLLABI OF B.A, B.SC., B.COM. UNDER CBCS

The comments/suggestions from all the stakeholders on the draft Syllabi and Scheme of Examinations of B.A, B.Sc., B.Com. Programmes under CBCS were invited upto 15.09.2020.

All the stakeholders, i.e Deans of the Faculties, HODs, Faculties and Principals of Affiliated Colleges can now send their comments/suggestions upto 25.10.2020 on the draft Syllabi and Scheme of Examinations of B.A, B.Sc., B.Com. Programmes under CBCS (copy enclosed) through e-mail at dean.academic@mdurohtak.ac.in to the Dean, Academic Affairs, so that the same may be incorporated in the final draft.

Any further incorporation may not be possible beyond 25.10.2020.

Dean Academic Affairs

B.A. Pass Course under Choice Based Credit System
Department of Geography

Proposed Scheme of Examination

SEMESTER	COURSE OPTED	COURSE NAME	Credits	Marks	Internal Assessment	Total Marks
I	Ability Enhancement Compulsory Course-I	(English/ Hindi/ MIL Communication) / Environmental Science	4	80	20	100
	Core Course-I DSC 1A	English/ Hindi/ MIL	6 (5+1)	120	30	150
	Core Course-II (Theory) DSC 2A	Physical Geography.	4	80	20	100
	Core Course-II (Practical) DSC 2A	Maps and Scales.	2	50	00	050
	Core Course-III DSC 3A	-	6 (5+1)	120	30	150
II	Ability Enhancement Compulsory Course-II	Environmental Science/(English/ Hindi/ MIL Communication)	4	80	20	100
	Core course-IV DSC 1B	English/ Hindi/ MIL	6 (5+1)	120	30	150
	Core Course-V (Theory) DSC 2B	Human Geography.	4	80	20	100
	Core Course-V (Practical) DSC 2B	Map Projections.	2	50	00	050
	Core course-VI DSC 3B	-	6 (5+1)	120	30	150
III	Skill Enhancement Course -1 SEC-1	Geography and Statistical Techniques	4	80	20	100
	Core Course-VII DSC 1C	English/ Hindi/ MIL	6 (5+1)	120	30	150
	Core Course-VIII (Theory) DSC 2C	Cartographic Techniques.	4	80	20	100
	Core Course-VIII (Practical) DSC 2C	Topographical Sheets and Representation of Relief Features.	2	50	00	050
	Core Course-IX DSC 3C	-	6 (5+1)	120	30	150
IV	Skill Enhancement Course -2 SEC -2	Fundamental of Remote Sensing and GPS	4	80	20	100
	Core course-X DSC 1D	English/ Hindi/ MIL	6 (5+1)	120	30	150
	Core Course-XI (Theory) DSC 2D	Environmental Geography.	4	80	20	100
	Core Course-XI (Practical) DSC 2D	Distribution Maps and Diagrams.	2	50	00	050
	Core Course-XII DSC 3D	-	6 (5+1)	120	30	150

V	Skill Enhancement Course -3 (Theory) SEC-3	Field Techniques and Surveying Methods	4	80	20	100
	Generic Elective- 1 GE-1	GE – 1 ^s Geography	6 (5+1)	120	30	150
	Discipline Specific Elective – 1 (Theory) DSE-1	DSE -1* Geography	6 (5+1)	120	30	150
	Discipline Specific Elective – 2 DSE-2	-	6(5+1)	120	30	150
VI	Skill Enhancement Course -4 SEC-4	Introduction in Geographic Information System	4	80	20	100
	Generic Elective-2 GE-2	GE – 2 ^s Geography	6 (5+1)	120	30	150
	Discipline Specific Elective – 3 (Theory) DSE-3	DSE -3* Geography	6 (5+1)	120	30	150
	Discipline Specific Elective – 4 DSE-4	-	6(5+1)	120	30	150

A. CORE COURSES (Semester I to IV)

1. Physical Geography and Maps and Scales.
2. Human Geography and Map Projections.
3. Cartographic Techniques and Topographical Sheets and Representation of Relief Features.
4. Environmental Geography and Distribution Maps and Diagrams.

B. * DISCIPLINE SPECIFIC ELECTIVE COURSES

a) Discipline Specific Elective – 1 (Fifth Semester)
(Select any one of the three options)

1. Geography of India.
2. Geography of Asia.
3. World Regional Geography.

b) Discipline Specific Elective – 3 (Sixth Semester)
(Select any one of the three options).

1. Economic Geography.
2. Regional Development and Planning.
3. Agricultural Geography.

C. \$ GENERIC ELECTIVE COURSES

a) Generic Elective – 1 (Fifth Semester)
(Select any one of the two options)

1. Disaster Management.
2. Rural Geography.

b) Generic Elective – 2 (Sixth Semester)
(Select any one of the two options)

1. Climate Change Vulnerability and Mitigation.
2. Geography of Tourism.

D. SKILL ENHANCEMENT COURSES

(SEC 1 to SEC 4) [Semester III to VI]

1. Geography and Statistical Techniques.
2. Fundamental of Remote Sensing and GPS.
3. Field Techniques and Surveying Methods.
4. Introduction in Geographic Information System.

B. A. Pass Course, Semester-I (2020-21 onward)

DSC 2A: Physical Geography

Internal Assessment Marks: 20

External Assessment Marks: 80

Maximum Marks: 100

Time: 3 Hours.

Learning Objectives:

To understand the components of the earth system and have an understanding of surface features in local, regional and global framework.

Learning Outcomes:

After the completion of the course, the students will have the ability to associate and bring out the relationships of the features of one sphere with other spheres.

Note: There shall be nine questions in all. The candidate(s) have to attempt five questions including question no.9 which is compulsory. The question no 9 comprising eight short questions to be answered in 30 words each. In addition, the candidate(s) have to attempt four more questions selecting at least one from each unit. All questions carry equal marks.

UNIT-I

Introduction

Definition and Scope of Physical Geography; Geological Time Scale; Rocks-Types and Characteristics; Earth's Movements; Concept of Isostasy; Plate Tectonics.

UNIT-II

Lithosphere

Interior Structure of Earth; Earthquakes and Volcanoes; Weathering and Mass Wasting; Cycle of Erosion; Concepts of Davis and Penck; Processes and Landforms by Wind and Running Water.

UNIT-III

Atmosphere

Atmosphere-Composition and Structure; Insolation and Heat Budget; Atmospheric Pressure-Circulation of Global; Seasonal and Local Winds; Monsoon; Tropical Cyclones; Climatic Classification (Koppen).

UNIT-IV

Hydrosphere

Hydrological Cycle; Configuration of Oceanic Floors and Bottom Relief of Pacific, Atlantic and Indian Oceans; Oceanic Temperature and Salinity; Tides; Ocean Currents in Pacific, Atlantic and Indian Oceans.

Suggested Readings:

1. Barry, R. G. & Chorley, R.J. (1998). **Atmosphere, Weather and Climate**. London: Routledge.
2. Critchfield, H. (2002). **General Climatology**. New Delhi: Prentice-Hall of India.

3. Gabler, R. E. Petersen, J. F. & Trapasso, L. M. (2007). **Essentials of Physical Geography**. (8th Edition), New York: Thompson, Brooks/ Cole.
4. Husain, M. (2002). **Fundamental of Physical Geography**. Jaipur: Rawat Publications.
5. Sharma, R.C. & Vatal, M. (1995). **Oceanography for Geographers**. Chaitanya Publishing House.
6. Singh, Savinder. (1998). **Physical Geography**. Ahhahabad: Prayag Publication.
7. Singh, Savinder. (2018). **Bhautik Bhugol**. Allahabad: Prayag Pustak Bhawan.
8. Strahler, A. N. & Strahler, A. H. (2008). **Modern Physical Geography**. New York: John Wiley & Sons.
9. Trewartha, G. T. (1981). **An Introduction to Climate**. New Delhi: Mc-Graw Hill.

B. A. Pass Course, Semester-I (2020-21 onward)

**Practical: DSC 2A
Maps and Scales**

Maximum Marks: 50
Distribution of Marks.
Exercises = 30
Record File = 10
Viva-voce = 10
Time: 3 Hours.

Learning Objectives

To study maps and their types, methods of expressing scale measurement of distance and area on maps and enlargement and reduction of maps.

Learning Outcomes

The students will develop understanding of different types of maps, importance of scale and utility of maps in daily life.

Note: There will be SIX questions in all and candidate has to attempt THREE questions by selecting at least one from each section.

UNIT- I

1. Maps: Definition, History and Types; Importance of Maps.
2. Map Scales.
 - (i) Methods of Expressing a Scale = (Exercise: 02)
 - (ii) Conversion of Statement of Scale into R.F. and Vice Versa. (Exercise: 03)

UNIT- II

3. Types of Scales.
 - (i) Plain Scale (Km and Mile) = (Exercise: 02).
 - (ii) Comparative Scale = (Exercise: 02).
 - (iii) Diagonal Scale = (Exercise: 02)
4. Measurement of Distances and Areas on Maps.
5. Enlargement and Reduction of Maps.

Suggested Readings:

1. Monkhouse, F. J. and Wilkinson, H.R. (1972). **Maps and Diagrams**. London: Methuen and Co. Ltd.
2. Singh, L.R. and Singh, Raghunandan. (1973). **Map Work and Practical Geography**. Allahabad: Central Book Depot.
3. Singh, R. L. and Dutt, P.K. (1968). **Elements of Practical Geography**. Allahabad: Students Friends.
4. Singh, Gopal. (2004). **Map Work and Practical Geography**. 4th edition, Vikas Publication House.
5. Sharma, J. P. (1996). **Prayogik Bhugol**. Hapur: Rastogi and Company
6. Yadav, H. L. (2000). **Prayogik Bhugol Ke Aadhar**. New Delhi: Radha Publications.

B. A. Pass Course, Semester-II (2020-21 onward)

DSC 2B: Human Geography

Internal Assessment Marks: 20

External Assessment Marks: 80

Maximum Marks: 100

Time: 3 Hours.

Learning Objectives:

To study the spatial organization of human actions and relationships between society and environment; how humans in different parts of the world adapt and modify their natural geographic environment and human activities and interactions of human with environment across space.

Learning Outcomes:

The students would be able to understand how people organize and make use of earth's surface and its resources in different areas.

Note: There shall be nine questions in all. The candidate(s) have to attempt five questions including question no.1 which is compulsory comprising eight short questions to be answered in 25-30 words each. In addition, the candidate(s) have to attempt four more questions selecting at least one from each unit. All questions carry equal marks.

UNIT-I

Human Geography

Definition, Nature and Scope of Human Geography; Major Sub-fields of Human Geography; Principles of Human Geography; Development of Human Geography; Approaches to the study of Human Geography.

UNIT-II

Space and Society

Concept of Man-Environment Relation: A Historical Approach; Cultural Regions; Major Classification of Races-H.H. Rishley, A.C. Haddon and B.S. Guha; Spatial Distribution of Races in India (Based on B. S. Guha); Tribes of India: Major Regions of the Tribes, Major Characteristics of Nagas, Santhal, Gond and Bhils Tribes; Human Adaptation to the Environment: (i) Cold Region–Eskimo (ii) Hot Region-Bushman (iii) Mountains–Gujjars.

UNIT- III

Population:

Population Growth, Distribution and Density of World Population; Fertility and Mortality Patterns; Population Theories: Malthus, Ricardo and Marx.

UNIT-IV

Settlements and Human development:

Settlements: Types and Patterns of Rural Settlements; Urban Settlements: Origin, Classification and Functions of Towns; Population Pressure: Concept of Sustainable Development; Spatial Patterns of Human Development in India.

Suggested Readings:

1. Chandna, R. C. (2017). **Population Geography**. New Delhi: Kalyani Publishers.
2. *Desai, S. B., Dubey, A., Joshi, B. L., Sen, M., Sharif, A., & Venneman, R. (2010). **Human Development in India: Challenges for a Society in Transition**, New Delhi: Oxford University Press.*
3. De Blij, H. J. (1996). **Human Geography, Culture, Society and Space**, New York: John Wiley.
4. Ghosh, S. (2015). **Introduction to Settlement Geography**. Kolkata: Orient Black Swan Private Ltd.
5. Gregory, D. Johnston, R. Pratt, G. et al. (2009). **The Dictionary of Human Geography**. New Jersey: Wiley Blackwell Publication.
6. Hassan, M. I. (2020). **Population Geography: A Systematic Exposition**. London: Routledge.
7. Hussain, M. (2012). **Manav Bhugol**. Jaipur: Rawat Publications.
8. Kaushik, S. D. (2010). **Manav Bhugol**. Meerut: Rastogi Publication.
9. Maurya, S. D. (2012). **Manav Bhugol**, Allahabad: Sharda Pustak Bhawan.

B. A. Pass Course, Semester-II (2020-21 onward)

Practical: DSC 2B

Maps Projections

Maximum Marks: 50
Distribution of Marks
Exercises= 30
Record File= 10
Viva-Voce= 10
Time: 3 Hours.

Learning Objectives

To understand the processes of transferring the web of latitudes and longitudes from globe to a plane surface and preparing map accordingly. Students will learn the characteristics of various map projections depending on the nature and extent of distortion (in the case of distance, direction, scale or shape).

Learning Outcomes

After the completion of the course, the students will be able to determine which map projection is most suitable for their purpose.

Note: There will be **SIX** questions in all and candidate has to attempt **THREE** questions at least one from each section.

Unit –I

1. Introduction to Map Projection: Meaning, Classification and importance; Characteristics of latitudes and longitudes lines.
2. **Cylindrical projections:**
(I) Cylindrical projections: Characteristics, applications and drawing; (Ex; 3)
 - (i) Simple cylindrical projection
 - (ii) Cylindrical equal area projection.
 - (iii) True shape or orthomorphic or Mercator's Projection.

Unit –II

- (II) Conical Projections: Characteristics, applications and drawing; (Ex; 05)**
 - (i) Simple conical projections with one standard parallel.
 - (ii) Simple conical projection with two standard parallel.
 - (iii) Bonne's Projection.
 - (iv) Polyconic projection.
 - (v) International Map Projection.

Unit -III

- (III) Zenithal Projections: Characteristics, applications and drawing; (Ex; 5+2=7)**
 - (vi) Polar Zenithal Equidistant Projection.
 - (vii) Polar Zenithal Equal Area Projection.
 - (viii) Polar Zenithal Gnomonic Projection.
 - (ix) Polar Zenithal Stereographic Projection.
 - (x) Polar Zenithal Orthographic Projection.
- (I) Sinusoidal Projections, and**
- (II) Mollweide Projections.**

Suggested Readings:

1. Goyal, K.K. (1981). **Practical Geography**. Rohtak: Manthan Publication.
2. Inderpal & Mathur, H.S. (1987). **Manchitra Avm Prekshape**. Jaipur: Rajasthan Hindi Granth Acadmi.
3. Sarkar, A.K. (1997). **Practical Geography-A Systematic Approach**. Calcutta: Orient Longman.
4. Singh, L.R. and Singh, Raghunandan. (1973). **Map Work and Practical Geography**. Allahabad: Central Book Depot.
5. Singh, R. L. (1972). **Elements of Practical Geography**. New Delhi: Kalyani Publication.
6. Sharma, J. P. (1996). **Prayogik Bhugol**. Hapur: Rastogi and Company.
7. Yadav, H. L. (2000). **Prayogik Bhugol Ke Aadhar**. New Delhi: Radha Publications.

Maharshi Dayanand University, Rohtak
B.A. (PASS COURSE) Defence Studies
(As per Choice Based Credit System w.e.f. the academic year 2020-21)
Programme Specific Outcomes

Learning Objectives:-

- To develop a knowledge-base on the various issues, publish the same and allow for interactions on issues of common interests through various forums, among the concerned fraternity and thus create and awareness about India's security issues and needs among all sections of people in India.
- To study the regional and global forces involved in stirring up social and ethnic between different sections of the society and the role of such forces in provoking secessionist movements in the country.
- To study the various aspects and dimensions of the security challenges faced by India and identify the key issues concerning threats to the security, sovereignty and territorial integrity of India.
- Instil the graduates skills, knowledge and abilities to understand national security issues analytically which to help the students to pick up adequate comprehension on matters security. Infuse each graduate with a desire to be a lifelong learner and plan to pursue professional courses related to Defence Studies to be a domain specialist.
- Gain an understanding of professional ethics and to apply in the field of national security rather than replicate curriculum content knowledge.

Learning Outcomes

- Students would gain deep understanding of the Indian military history, various military thoughts of learned thinkers, impact of science and technology on warfare and also discuss basic concept and theories of nuclear warfare and deterrence.
- Impart students with knowledge of various aspects of military psychology related to military leadership, man-management and warfare.
- Students will have core knowledge of nature, evolution, features, principles, strategies and tactics of warfare.
- Students will be able to understand the concept of national security, national defence and various theories of international relations and gain knowledge regarding various regional and international strategic issues.
- To analyze the civil military relations of India with reference to higher military organization and national Security Council. Comprehensive Study of Defence budget of India, Pakistan & China.

Scheme of Examination

BA (Pass-Course) Defence Studies has three types of courses i.e. Core Courses (72 Credits), Discipline Specific Elective Courses, Interdisciplinary Courses (36 Credits) and Ability Enhancement Courses have been divided into two parts. In the first part (AECC), it includes ability enhancement compulsory courses like Environmental Science, English, Communication Skill/MIL (08 Credits) and in the second part Skill Enhancement Courses (16 Credits). Total credits of the programme are 132 credits including course credits and tutorial credits.

Credit distribution of BA Defence Studies Programme under CBCS

Course Core	Courses Credit	Discipline/ Specific Elective & Generic Elective (Interdisciplinary Course Credit) DSE+GE	Ability Enhancement Compulsory Course Credits (AECC)	Skill Enhancement Course Credits (SEC)	Total Credits
Theory	48	26	08	16	98
Practical/Tutorial	24	10	-	-	34
Total Credits	72	36	08	16	132

Abbreviations: DSC: Discipline Specific Course, DSE: Discipline Specific Elective, AECC: Ability Enhancement Compulsory Course, SEC: Skill Enhancement Course, GE: Generic Elective, MIL: Modern Indian Language, L: Lectures; T: Tutorials; P: Practical; IA: Internal Assessment

B. A Pass Course under Choice Based Credit System
Department of Defence & Strategic Studies

Proposed Scheme of Examination

SEMESTER	COURSE OPTED	COURSE NAME	CREDITS	Marks	Internal Assessment	Total Marks
I	Ability Enhancement Compulsory Course-I	(English/ Hindi/ MIL Communication)/ Environmental Science	4	80	20	100
	Core Course-I DSC 1A	English/ Hindi/ MIL	6 (5+1)	120	30	150
	Core Course-II (Theory) DSC 2A	Conceptual Aspects of War	4	80	20	150
	Core Course-II (Practical) DSC 2A	Map Reading-I	2	50	-	50
	Core Course-III DSC 3A	DSC 3A	6	120	30	150
II	Ability Enhancement Compulsory Course-II	Environmental Science (English/ Hindi/ MIL Communication)	4	80	20	100
	Core course-IV DSC 1B	English/ Hindi/ MIL	6 (5+1)	120	30	150
	Core course-V (Theory) DSC 2B	Military History of India	4	80	20	150
	Core course-V (Practical) DSC 2B	Map Reading-II	2	50	-	50
	Core Course-VI DSC 3B	DSC 3B	6	120	30	150
III	Skill Enhancement Course -1 SEC-1	Defence Journalism	4	80	20	100
	Core Course-VII DSC 1C	English/ Hindi/ MIL	6 (5+1)	120	30	150
	Core Course-VIII (Theory) DSC 2C	National Security of India	4	80	20	150
	Core Course-VIII (Practical) DSC 2C	Basic Map Reading-I	2	50	-	50
	Core Course-IX DSC 3C	DSC-3C	6	120	30	100
IV	Skill Enhancement Course -2 SEC-2	Strategic Leadership	4	80	20	100

	Core course-X DSC 1D	English/ Hindi/ MIL	6 (5+1)	120	30	150
	Core Course-XI (Theory) DSC 2D	Military Psychology	4	80	20	100
	Core Course-XI (Practical) DSC 2D	Basic Map Reading-II	2	50	-	50
	Core Course-XII DSC 3D	DSC 3D	6	120	30	150
V	Skill Enhancement Course -3 SEC-3	Strategic Thought	4	80	20	100
	Generic Elective -1 GE-1	International Relations Or India's Foreign Policy	6 (5+1)	120	30	150
	Discipline Specific Elective -1 (Theory) DSE-1	International Terrorism OR Defence Economics OR Disaster Management & National Security	4	80	20	100
	Discipline Specific Elective -1 (Practical) DSE-1	Basic Military Tactics-I	2	50	-	50
	Discipline Specific Elective -2 DSE-2	DSE-2	6	80	20	150
VI	Skill Enhancement Course -4 SEC-4	Military Geography	4	80	20	100
	Generic Elective -2 GE-2	International Law OR Indian Defence Mechanisms	6 (5+1)	120	30	150
	Discipline Specific Elective -3 (Theory) DSE-3	Area Studies of South Asia OR Insurgency and Counter Insurgency OR Science, Technology and National Security	4	80	20	100
	Discipline Specific Elective -3 (Practical) DSE-3	Basic Military Tactics-II	2	50	-	50
	Discipline Specific Elective – 4	DSE-4	4	80	20	150

A. CORE COURSES

1. Conceptual Aspects of War
2. Military History of India
3. National Security of India
4. Military Psychology

B. DISCIPLINE SPECIFIC ELECTIVE COURSES

a) Discipline specific elective – 1 (Fifth Semester) (Select any one of the three options)

1. International Terrorism
2. Defence Economics
3. Disaster Management & National Security

b) Discipline Specific Elective – 4 (Sixth Semester) (Select any one of the three options)

1. Area Studies of South Asia
2. Insurgency and Counter Insurgency
3. Science, Technology and National Security

C. GENERIC ELECTIVE COURSES

a) Generic Elective-1 (Fifth Semester) (Select any one of the two options)

1. International Relations
2. India's Foreign Policy

b) Generic Elective-2 (Sixth Semester) (Select any one of the two options)

1. International Law
2. Indian Defence Mechanisms

D. SKILL ENHANCEMENT COURSES

(SEC-1 to SEC-4)

1. Defence Journalism (Third Semester)
2. Strategic Leadership (Fourth Semester)
3. Strategic Thought (Fifth Semester)
4. Military Geography (Sixth Semester)

B.A. PASS COURSE IN DEFENCE STUDIES (CBCS SCHEME)

SYLLABUS FOR

B.A. 1st Year- Semester -I

Max. Marks – 150
Theory Marks - 80
Practical Marks – 50
Int. Assessment – 20

Paper: Conceptual Aspects of War

Paper Code: - DSC-1A

Learning Objectives

- To understand the concept, nature and scope of war.
- To study the various causes and principles of warfare.
- To make students able to learn about features of modern warfare.
- To develop a deep understanding about strategy and tactics.

Learning Outcomes:-

- Students will be able to understand the various aspects of war.
- Students would gain basic understanding all types of war.
- Students will have core knowledge advantages and disadvantages of war.
- Develop understanding of the strategy, tactics and warfare.
- Increase the awareness about modern warfare.
- Develop understanding about beginning of nuclear era and main effects of nuclear energy and its impact on India's Security.

Note: - The Paper setter shall set nine questions in all, taking two questions from each unit and one compulsory question ((Q. No. 9) containing eight short answer type questions of two marks each covering the entire syllabus. The candidate shall attempt five questions in all selecting one question from each unit and the compulsory question. All questions shall carry equal marks.

Unit-I

1. Concept and Definition of War.
2. Nature and Scope of War.
3. Principles of War.
4. Evolution of War.

Unit-II

1. Causes of War: Political, Economic, Social, Psychological and Military.
2. Features of Modern War.
3. Nature of Future Wars and its advantages and disadvantages.
4. Cycle of War: Definition, Elements of Cycle of War and Stages of the Cycle of War.

Unit-III

1. Types of war: Total War, Limited War and Guerilla War.
2. Specialized War (Mountain War, Desert War and Jungle War).
3. Nuclear warfare, Chemical warfare, Biological warfare.
4. Cold-War: Definition and its various tools: Economic, Psychological and Diplomatic.

Unit-IV

1. Strategy: Various Definitions and its Types:-
 - a) Strategy of Annihilation, Strategy of Exhaustion and Strategy of Indirect Approach.
2. Tactics: Various Definitions and its Types:-
 - a) Infiltration.
 - b) Web Defence.
 - c) Blitzkrieg.
3. Deference between Strategy and Tactics.
4. Deference between Strategy and Grand Strategy.

Reference Books:-

1. Howard, Micheal, "Theory and Practice of War", Indiana University Press, USA, 1984.
2. Howard, Micheal, "The Causes of War", Harvard University Press, USA, 1984.
3. Bernard Black, L., "War and its Causes", Rowman & Littlefield Publishers, USA, 2019.
4. Wright, Quincy, "A Study of War, University of Chicago Press, Chicago, USA. 1965.
5. Brodie, Bernard, "Strategy in the Missile age", Rand Publishing, USA, 2007.
6. Rees David, "Korea the Limited War", Natraj Publishers, Dehradun, 1978.
7. Carl von Clausewitz (ed), "Principles of War", Army Publishers, Delhi-6, 1968.
8. Lt. Gen. K.K. Nanda, "Indo-Pak War-1971" (Hindi), Parbhat Publications, Asaf Ali Road, New Delhi.
9. A.K. Singh, "Bhartiya Yudhkala-Vedik kal se 1947 tak", Prakash Book Depot, Bareilly, 2012.
10. K.S. Sidhu, "Role of Navy in India's Defence." Harnam Publication, New Delhi, 1983.
11. Singh, Lallan Ji., "Aadhunik Rajya ka Raksha Tantra", Prakash Book Depot, Bareilly, 2009.

12. Singh, Lallan Ji., “ Paschtya Senya Itihas Evam Yudh Kalan”, Prakash Book Depot, Bareilly, 2002.
13. Dr. Virendra Baghel, Bhartiya Raksha Pranali, Kadambari Prakashan, 2015.
14. Dr. Ramsurat Pandey, “National Security and International Relation”, Prakash Book Depot, Bareilly, 2017
15. Mishra S K, “National Defence and Security”, Modern Publishers, 2018

B.A. 1 -Ist SEMESTER
Map Reading-I (Practical)

Max. Marks: 50

Time: 3 Hours

Practical Test: 30 Marks

Practical Record: 10 Marks

Viva-Voce: 10 Marks

1. The Map: - Its Definition, Essentials, Classification, Management, Information of toposheet and its utility for military. Explanation of the term 'map'
2. Sheet Number system and index to sheet.
3. Conventional Signs:- Military & Geographical.
4. An Extempore Lecture of five minutes on any theory topic.

Recommended Books:

1. Tiwari N.P., "Practical Map Reading", Parkash Book Depot, Bareilly (UP) 2019.
2. Jaglan, Singh Kuldeep, Sahravat Anil," Raksha Aadyan Ka Prichya", Kapila Publication Jalandhar-Delhi, 2018.
3. Capt. Lal Hazari, "Samrik Manchitra Pathan", 1st and 2nd Addition, Shamrik Prakashan Kendra Publication, Aligarh (UP) 1985.
4. Maliwal B.N., "Prakriyatmak Sainya Vigyan", 1st and 2nd Addition, Distributing Company Publishing Rajpur Road, Dehradun, 2003.
5. Gale and Polden, "Military Map Reading", Friends Publication, New Delhi, 2006.
6. Mishra, Kumar Surendra, Srivastva, Kumar Dinesh, "Sanya Vigyan Mokhiki", Himansu Publication, Meerut, 1983-1984.
7. Singh, Brig. Jasbir, "Practical Map Reading", Budwal Publishing House, Chandigarh, 2003.
8. Varma, Capt. M.P., Sharma, Kumar Yogesh, "Tactical Exercises", Bharat Parkashan Mandir, Aligarh, 1990.
9. Singh, A.K., "World Military History", Pradeep Publication Jalandhar, 1991.
10. Capt. Lal, Hazari, "Intermediate Practical Military Science," Samrik Parkashan Kendra, Aligarh, 1979.
11. Mishra, S.K., "Modern Prayogatam Raksha Aadhan," Modern Publication, New Delhi, 2011.
12. Singh, Balwant, "An Easy Approach to Map Reading," Prakash Book Depot, Bareilly, 1966.
13. Verma M.P., "Sainik Manchitra Vigyan", Aligarh (UP) 2006.

B.A. Ist Year- Semester –II

Max. Marks – 150
Theory Marks - 80
Practical Marks – 50
Int. Assessment – 20

Paper: - Military History of India

Paper Code: - DSC-1B

Learning Objectives:-

- To understand the various aspects of Military Systems of Vedic Periods, Ramayana Periods and Mahabharata Periods and its Impact on evolution of civilization.
- Provide a deeper understanding about the important features of the Kautilya's Philosophy of Warfare and Military System under Mauryas's and Gupta's Periods
- To provide Knowledge about the Hindu Military System, Rajput Military System, Mughal Military System, Sikh Military System and Maratha Military System.
- To study the Military System of East India Company and Reorganization of Indian Army under the British Crown.

Course Outcomes: -

- The military organization of various armies since ancient time and strategies and tactics adopted in the decisive battles fought in India.
- Become familiar in evolution of art of warfare in India
- Learn and understand the Strategy, tactics, application of principles of war and causes of defeat and victory of various Indian, Mughal, Maratha and Sikh, Rajput Generals.
- Students will be able to understand various aspects of India's first independence war and its impact on East India Company and British Government.

Note: - The Paper setter shall set nine questions in all, taking two questions from each unit and one compulsory question ((Q. No. 9) containing eight short answer type questions of two marks each covering the entire syllabus. The candidate shall attempt five questions in all selecting one question from each unit and the compulsory question. All questions shall carry equal marks.

Unit-I

1. Military system in Vedic Period
2. Military system of Ramayana and Mahabharata Period.
3. Kautilya's Philosophy of War.
4. Maurya Military System as described by Greek historians.

Unit-II

1. Hindu Military System during the age of Gupta.
2. Hindu Military System during the age of Harsh.
3. Rajput Military System.
4. Army Organisation during Sultantate Period.

Unit-III

1. Mughal Military System – Mansabdari System, Battle of Khanwa.
2. Maratha Military System under Shivaji; weakness of Maratha Military System after Shivaji with special reference to Third Battle of Panipat 1761 A.D.
3. Sikh Military System under Dal Khalsa and Ranjeet Singh and Battle of Sobraon 1846 A.D.

Unit-IV

1. Armed forces under East India Company.
2. Indian War of Independence 1857 A.D
3. Armed forces under the Crown.
4. Presidency Armies and Indiansation of Armed Forces(Lord Kitchener’s reforms)

Reference Books:

1. Chankarvarty, P.G., “Art of War in Ancient India”
2. Majumdar, B.K., “Military System in Ancient India”
3. Majumdar, B.N., “Study of Indian Military History”
4. Basham, A.L., “The Wonder that was in India”
5. Kar, H.C., “Military of India”
6. Dass, S.T. “India Military: History and Development”
7. David Alfred, “Indian Air Force”
8. Fuller, F.C., General ship of Alexander the Great”
9. Cohen, S.P., “Indian Army”
10. Irvin, William, “Army of Indian Mughals”
11. Majumdar, M.N., “Military System of the Mughals”
12. Malleon, G.B., “Decisive Battles of India
13. Shastri, Shayama, “Kautilya’s Arthshastra”
14. Rajendra Nath, “Military Leadership in India”
15. Singh Gulcharan, “Battles of Panipat”

16. Subramanyam, T.G., "Famous Battles of India"
17. Sharma, Gautam, "Indian Army through the Ages"
18. Shastri, Nil Kanth, K.A., "Age of Nandas and Mauryas"
19. Sen, S.N., "The Military System of the Marathas"
20. Sardesai, S.S., "New History of Maratha"
21. Subramanyam, T.G., "Famous Battles in India History"
22. Singh, S.D. Ancient India warfare with Special reference to the Vedic Period.
23. Jackson, Major Donovan, "Indian Army".
24. Misra, S.K., Misra, Maya Mishra, "Bharatiya Sanya Sangathan".
25. Lt. Col. Sharma, Gautam, "Indian Army Through The Ages".
26. Das, S.T., "Indian Military".
27. Singh, Lallan Ji., "Antrirastriya Sambandho Par Yudh ka Parphav."

B.A. 1 -IInd SEMESTER
Map Reading-II (Practical)

Max. Marks: 50

Time: 3 Hours

Practical Test: 30 Marks

Practical Record: 10 Marks

Viva-Voce: 10 Marks

1. Scale: - Its Definition, Methods of Expressing Scale and detailed study of simple scale.
2. Grid System: - Grid Lines, Grid References and types of Grid References.
3. Directions and Finding out north:- Directions, North Directions and Methods of Finding out North.
4. An Extempore Lecture of five minutes on any theory topic.

Recommended Books:

1. Tiwari N.P., "Practical Map Reading", Parkash Book Depot, Bareilly (UP) 2019.
2. Jaglan, Singh Kuldeep, Sahravat Anil," Raksha Aadyan Ka Prichya", Kapila Publication Jalandhar-Delhi, 2018.
3. Capt. Lal Hazari, "Samrik Manchitra Pathan", 1st and 2nd Addition, Shamrik Prakashan Kendra Publication, Aligarh (UP) 1985.
4. Maliwal B.N., "Prakriyatmak Sainya Vigyan", 1st and 2nd Addition, Distributing Company Publishing Rajpur Road, Dehradoon, 2003.
5. Gale and Polden, "Military Map Reading", Friends Publication, New Delhi, 2006.
6. Mishra, Kumar Surendra, Srivastva, Kumar Dinesh, "Sanya Vigyan Mokhiki", Himansu Publication, Meerut, 1983-1984.
7. Singh, Brig. Jasbir, "Practical Map Reading", Budwal Publishing House, Chandigarh, 2003.
8. Varma, Capt. M.P., Sharma, Kumar Yogesh, "Tactical Exercises", Bharat Parkashan Mandir, Aligarh, 1990.
9. Singh, A.K., "World Military History", Pradeep Publication Jalandhar, 1991.
10. Capt. Lal, Hazari, "Intermediate Practical Military Science," Samrik Parkashan Kendra, Aligarh, 1979.
11. Mishra, S.K., "Modern Prayogatam Raksha Aadhan," Modern Publication, New Delhi, 2011.
12. Singh, Balwant, "An Easy Approach to Map Reading," Prakash Book Depot, Bareilly, 1966.
13. Verma M.P.," Sainik Manchitra Vigyan", Aligarh (UP) 2006.

**Department of History and Archaeology
Maharshi Dayanand University, Rohtak**

(As per Choice Based Credit System in B.A. (Pass Course) with History w.e.f. 2020-21)

Programme Specific Outcomes

Learning Objectives

- To develop a strong foundation in the fundamental concepts of History.
- To prepare the students to conserve and manage the rich history and cultural heritage of India.
- To make students able to employ the scientific knowledge and methods to the benefits for society, economy and polity.
- To make students competent to function successfully for historical studies both in the classrooms and field studies.
- To develop a critical understanding of the significance of historical developments professionalization of the discipline and their relevance to a students specialist area of study.

Learning Outcomes

- Students will have core knowledge of the Indian history as well as World history.
- Students will able to demonstrate a working knowledge of the fundamental concepts of the Archaeology, Ancient, Medieval and Modern History.
- Students will be able to understand the process of development and progress of mankind with reference to society, economy and polity.
- Students will gain basic understanding of various aspects of contemporary issues.

B.A Pass Course under Choice Based Credit System
Department of History & Archaeology

Proposed Scheme of Examination

Semester	COURSE OPTED	COURSE NAME	Credits	Marks	Int. Assess.	Total Marks
I	Ability Enhancement Compulsory Course-I	(English/ Hindi/MIL Communication)/ Environmental Science	4	80	20	100
	Core Course-I DSC 1A	English/ Hindi/ MIL	6 (5+1)	120	30	150
	Core Course-II DSC 2A	History of India (from earliest times to C. 1200 AD)	6 (5+1)	120	30	150
	Core Course-III DSC 3A	DSC 3A	6 (5+1)	120	30	150
II	Ability Enhancement Compulsory Course-II	Environmental Science /(English/ Hindi/ MIL Communication)	4	80	20	100
	Core course-IV DSC 1B	English/ Hindi/ MIL	6 (5+1)	120	30	150
	Core course-V DSC 2B	History of India (from C. 1200 AD to 1707 AD)	6 (5+1)	120	30	150
	Core Course-VI DSC 3B	DSC 3B	6 (5+1)	120	30	150
III	Skill Enhancement Course -1 SEC-1	An Introduction to History	4	80	20	100
	Core Course-VII DSC 1C	English/ Hindi/ MIL	6 (5+1)	120	30	150
	Core Course-VIII DSC 2C	History of India (C. 1707 AD to 1947 AD)	6 (5+1)	120	30	150
	Core Course-IX DSC 3C	DSC 3C	6 (5+1)	120	30	150
IV	Skill Enhancement Course -2 SEC -2	History and Tourism	4	80	20	100
	Core course-X DSC 1D	English/ Hindi/ MIL	6 (5+1)	120	30	150
	Core Course-XI DSC 2D	Contemporary History of India (1950 AD to 2000 AD)	6 (5+1)	120	30	150
	Core Course-XII DSC 3D	DSC 3D	6 (5+1)	120	30	150
V	Skill Enhancement Course -3 SEC-3	An Introduction to Archaeology	4	80	20	100
	Generic Elective -1 GE-1	History of Haryana (Earliest times to 1526 AD) OR Contemporary World (1945 AD to 1990 AD)	6 (5+1)	120	30	150

	Discipline Specific Elective -1 DSE-1	Ancient World OR Medieval World OR Modern World	6 (5+1)	120	30	150
	Discipline Specific Elective – 2	DSE-2	6 (5+1)	120	30	150
VI	Skill Enhancement Course -4 SEC-4	Archives and Museums	4	80	20	100
	Generic Elective – 2 GE-2	History of Haryana (1526 AD to 1947 AD) OR History of Far East (1840 AD to 1950 AD)	6 (5+1)	120	30	150
	Discipline Specific Elective -3 DSE-3	Indian Political Thought OR Some Aspects of Indian Culture OR Indian Nationalism : Rise and Growth	6 (5+1)	120	30	150
	Discipline Specific Elective - 4	DSE-4	6 (5+1)	120	30	150

A. CORE COURSES

1. History of India (Earliest Times to 1200 AD)
2. History of India (1200 AD to 1707 AD)
3. History of India (1707 AD to 1947 AD)
4. Contemporary History of India (1950 AD to 2000 AD)

B. DISCIPLINE SPECIFIC ELECTIVE COURSES

a) Discipline Specific Elective-1 (Fifth Semester)

(Select any one of the three options)

1. Ancient world (5) + Tutorials (1)
2. Medieval World(5) + Tutorials (1)
3. Modern World (5) + Tutorials (1)

b) Discipline Specific Elective-3 (Sixth Semester)

(Select any one of the three options)

1. Indian Political Thought(5) + Tutorials (1)
2. Some aspects of Indian Culture (5) + Tutorials (1)
3. Indian Nationalism: Rise and Growth (5) + Tutorials (1)

C. GENERIC ELECTIVE COURSES

a) Generic Elective-1 (Fifth Semester)

(Select any one of the two options)

1. History of Haryana (Earliest Times to 1526 AD)
2. Contemporary World (1945 AD to 1990 AD)

b) Generic Elective-1 (Sixth Semester)

(Select any one of the two options)

1. History of Haryana (1526 AD to 1947 AD)
2. History of Far East (1840 AD to 1950 AD)

D. SKILL ENHANCEMENT COURSES

(SEC 1 to SEC 4)

1. An Introduction to History (Semester -III)
2. History and Tourism (Semester -IV)
3. An Introduction to Archaeology (Semester -V)
4. Archives and Museums (Semester -VI)

B.A. (Pass Course) with History (1st Semester)
(As per Choice Based Credit System w.e.f. the academic year 2020-21)

Paper : History of India (Earliest Times to C. 1200 AD)
Code: DSC-1A

Learning Objectives:

- To understand the reconstruction and interpreting of ancient India (Stone Age to Harappan Civilization).
- To understand the salient features of Vedic Age and second urbanization.
- To study the concept and development of religions i.e. Jainism and Buddhism.
- To understand the rise and downfall of foreign and indigenous powers.
- To understand the Arab & Turkish invasions and their impacts

Learning Outcomes:

- Students will have knowledge the development of human society and various cultures from stone age to iron age.
- Student will able to understand Harappan cultural structures, events and than shaping the World context.
- Student will able to evaluate and analyze different sources (particularly archaeological) in overseas.
- Student will gain basic knowledge about concept of the decline of indigenous powers.
- Student will gain basic idea of the concept about the relation of Arab and Turkish.

Max. Marks	: 150
Theory	: 120
Int. Assessment	: 30
Time	: 3 Hrs.

Note: The paper setter shall set nine questions in all, taking two questions from each unit and one compulsory question (Q.No. 9) containing eight short answer type questions of two marks each covering the entire syllabus. The candidate shall attempt five questions in all selecting one question from each unit and the compulsory question. All questions shall carry equal marks.

Unit-I

1. **Reconstructing and Interpreting Ancient India**
 - a) Defining History, History and Past
 - b) Sources of Ancient India
2. **Pre-Historical Age**
 - a) Main features of Palaeolithic, Mesolithic and Neolithic Cultures of India
3. **Harappan Civilization**
 - a) Origin, Extent and Town Planning
 - b) Economy and Religion
 - c) Problem of Decay

Unit-II

4. **The Vedic Age (c.1500 B.C. to 600 B.C.)**
 - a) Social, Economic Activities
 - b) Political, Religious Activities
5. **Second Urbanization and the rise of Territorial States**
6. **New Religious Movements : Jainism & Buddhism**
7.
 - a) **Foreign Invasions:** Achaemenian and Masedonian, their Impacts.
 - b) **Mauryan Empire:** Formation and Consolidation
 - Ashoka's Dhamma
 - Social and Economic condition
 - Decline of Empire

Unit-III

8. **Post Mauryan Age**
a) The Kushanas
b) Satavahanas
c) Cholas
9. **Gupta Empire**
a) Formation and Consolidation
b) Contribution to Indian Culture
- Post Gupta period**
a) Pushpabbutis
b) Tripartite Struggle- Pratiharas, Palas, Rastrakutas
c) Arab & Turkish invasions and their Impacts

Unit-IV

Maps:

1. Important sites of Harappan Civilization
2. Extent of Ashoka's Empire and Pillar Edicts
3. Ports and Trade routes of Ancient India
4. Extent of Kushana's Empire
5. Extent of Harshavardhana Empire

Suggested Readings :

- Jha, D.N. *Prachin Bharat*, Hindi Madhyam Karyanvaya Nideshalaya, University of Delhi, 1995
- Jha , D.N.and K.M. Srimali (ed.) *Prachin Bharat ka Itihas*, Hindi Madhyam Karyanvaya Nideshalaya , University of Delhi, 2007
- Majumdar, R.C. *Prachin Bharat*, Motilal Banarsidass, Delhi, 1973
- Mukharjee, R.K. *Prachin Bharat*, Raj Kamal Prakashan, New Delhi, 1990
- Pandey, A.B. *Purva Madhyakalin Bharat*, Central Book Depot, Allahabad, 1999 (Rev. edn.)
- Raychaudhry, H.C. : *Political History of Ancient India*, University of Calcutta, 1972
- Sharma, R.S. *Aspects of Political Ideas and Institutions in Ancient India* Motilal Banarasidass, Delhi, 1996 (Rev. Edn.)
- Sharma, R.S. *Prarambhik Bharat ka Aarthik aur Samajik Itihas*, Hindi Madhyam Karyanvaya Nidishalaya, University of Delhi, 2000.
- Thapar, Romila *Adikalin Bharat ki Vyakhya*, Granth Shilpi, Delhi, 2008
- ” *Ancient Indian Social History*, Orient Longman, New Delhi, 2004
- ” *A History of India*, Vol. I, Penguin, 1966
- ” *Ashok aur Maurya Samrajya ka Patan*, Granth Shilpi, Delhi, 1997
- ” *Interpreting Ancient India*, Granth Shilpi, New Delhi, 1985
- ” *Vansh se Rajya Tak*, Granth Shilpi, New Delhi, 2004

B.A. (Pass Course) with History (2nd Semester)
(As per Choice Based Credit System w.e.f. the academic year 2020-21)

Paper : History of India (c.1200 AD to 1707 AD)

Code : DSC-1B

Learning Objectives:

- To understand the reconstruction and interpreting of medieval India.
- To understand the salient features of Delhi Sultanate and Mughal empire.
- To understand the development of administrative institutional i.e. Iqtadari and Mansabadari.
- To understand the economic development during medieval period.
- To understand the socio-religious life during medieval period

Learning Outcomes:

- Students will able to understand the establishment of Delhi Sultanate and challenges to Indian society,
- Students get basic knowledge about the sources of medieval period, construction of imperial authority, legitimacy and kingship.
- Students will gain basic knowledge about the Islamic theory of sovereignty.
- Students will understand the evolution of administrative institutions, central administration and provincial Administration and nature of Mughal empire.
- Student get the basic knowledge about the religious classes.

Max. Marks	: 150
Theory	: 120
Int. Assessment	: 30
Time	: 3 Hrs.

Note: The paper setter shall set nine questions in all, taking two questions from each unit and one compulsory question (Q.No. 9) containing eight short answer type questions of two marks each covering the entire syllabus. The candidate shall attempt five questions in all selecting one question from each unit and the compulsory question. All questions shall carry equal marks.

Unit-I

1. **Reconstructing and Interpreting Medieval India** : Definition, Sources
2. **Delhi Sultanate**: Establishment and Consolidation under Early Turks-Aibek, Iltutmish, Balban
3. **Expansion of Delhi Sultanate** under Khiljis and Tughlaqs, Disintegration of Delhi Sultanate

Unit-II

4. **India on the eve of Babur's invasion**: His major achievements
5. **Second Afghan Empire**: Shershah Suri and his major achievements
6. **Consolidation and Expansion of Mughal Empire** : Akbar, Jahangir, Shahjahan, Aurangzeb

Unit-III

7. **Administrative Institutional Developments**:
 - a) Iqtadari,
 - b) Mansabdari
8. **Economic Aspects during Medieval Period** :
 - a) Land Revenue System
 - b) Industries, Trade and Commerce
9. **Socio-Religious Life during Medieval Period** :
 - a) Bhakti Movement
 - b) Sufi Movement
 - c) Din-e-Ilahi
 - d) Art and Architecture

Unit-IV

Map:

1. Extent of Sultanate under Alauddin Khalji
2. Urban Centres during Sultanate period
3. Political Condition of India on the eve of Babur's invasion
4. India under Akbar(1605 AD)
5. India under Aurangzeb(1707 AD)

Suggested Readings :

- Chandra, Satish *Madhyakalin Bharat* (Sultanate to Mughals), Vol. I & II, Jawahar Publication, New Delhi, 2000, 2001
- Dodwell, H.H. (ed.) *The Cambridge History of India*, Vol. V, S. Chand & Co., New Delhi, 1986
- Habibulla, A.B.M. *Foundation of Muslim Rule in India*, Central Book Depot, Allahabad, 1976
- Pandey, A.B. *Uttar Madhyakalin Bharat*, Vol. III, Panchsheel Prakashan, Kanpur, 1976
- Sharma, G. D. *Madhyakalin Bharat ki Samajik, Arthik aur Rajnitik Sansthayen*, Rajasthan Hindi Granth Academy, Jaipur, 1990
- Srivastava, A.L. *Madhyakalin Bhartiya Sanskriti*, Shivalal & Agrawal Company Prakashan, Agra, 1975
- Verma, H.C. *Madhyakalin Bharat*, Vol. I & II, Hindi Madhyam, Karyanvaya Nideshalaya, University of Delhi , 2000

B.A. Pass Course under Choice Based Credit System
Department of Psychology

Proposed Scheme of Examination

SEMESTER	COURSE OPTED	COURSE NAME	Credits	Marks	Internal Assessment	Total Marks
I	Ability Enhancement Compulsory Course-I	(English/ Hindi/ MIL Communication) / Environmental Science	4	80	20	100
	Core Course-I DSC 1A	English/ Hindi/ MIL	6 (5+1)	120	30	150
	Core Course-II (Theory) DSC 2A	Introduction to Psychology	4	80	20	100
	Core Course-II (Practical) DSC 2A	Practical	2	50	00	50
	Core Course-III DSC 3A	DSC 3A	6 (5+1)	120	30	150
II	Ability Enhancement Compulsory Course-II	Environmental Science/ (English/ Hindi/ MIL Communication)	4	80	20	100
	Core course-IV DSC 1B	English/ Hindi/ MIL	6 (5+1)	120	30	150
	Core course-V (Theory) DSC 2B	Foundation of Social Psychology	4	80	20	100
	Core Course-V (Practical) DSC 2B	Practical	2	50	00	50
	Core Course-VI DSC 3B	DSC 3B	6 (5+1)	120	30	150
III	Skill Enhancement Course -1 SEC-1	Understanding of Self	4	80	20	100
	Core Course-VII DSC 1C	English/ Hindi/ MIL	6 (5+1)	120	30	150
	Core Course-VIII (Theory) DSC 2C	Cognitive Psychology	4	80	20	100
	Core Course-VIII (Practical) DSC 2C	Practical	2	50	00	50
	Core Course-IX DSC 3C	DSC 3C	6 (5+1)	50	00	050
IV	Skill Enhancement Course -2 SEC -2	Fundamentals of Health Psychology	4	80	20	100

	Core course-X DSC 1D	English/ Hindi/ MIL	6 (5+1)	120	30	150
	Core Course-XI (Theory) DSC 2D	Foundation of Developmental Psychology	4	80	20	100
	Core Course-XI DSC 2D (Practical)	Practical	2	50	00	50
	Core Course-XII DSC 3	DSC 3D	6 (5+1)	120	30	150
V	Skill Enhancement Course -3 SEC-3	Psychological Strengths and Well- Being	4	80	20	100
	Generic Elective -1 GE-1	Psychology for Living OR Psychology at work	6 (5+1)	120	30	150
	Discipline Specific Elective -1 (Theory) DSE-1	Fundamentals of Psychopathology OR Organizational Psychology OR Forensic Psychology	4	80	20	100
	Discipline Specific Elective –1 (Practical) DSE-1	Practical	2	50	00	50
	Discipline Specific Elective –2 DSE-2	DSE-2	6 (5+1)	120	30	150
VI	Skill Enhancement Course-4 SEC-4	School Psychology	4	80	20	100
	Generic Elective -2 GE-2	Personality and Skill Development OR Youth, Gender and Identity	6(5+1)	120	30	150
	Discipline Specific Elective -3 (Theory) DSE-3	Basics of Guidance and Counselling OR Positive Psychology OR Sports & Exercise Psychology	4	80	20	100
	Discipline Specific Elective -3 (Practical) DSE-3	Practical	2	50	00	50
	Discipline Specific Elective -4 DSE-4	DSE-4	6	120	30	150

A. CORE COURSES

1. Introduction to Psychology
2. Foundation of Social Psychology
3. Cognitive Psychology
4. **Foundation** of Developmental Psychology

B. DISCIPLINE SPECIFIC ELECTIVE COURSES

a) Discipline Specific Elective-1 (Fifth Semester)

(Select any one of the three options)

1. Fundamentals of Psychopathology
2. Organizational Psychology
3. Forensic Psychology

b) Discipline Specific Elective-3 (Sixth Semester)

(Select any one of the three options)

1. Basics of Guidance and Counselling
2. Positive Psychology
3. Sports and Exercise Psychology

C. GENERIC ELECTIVE COURSES

a) Generic Elective-1

(Select any one of the two options)

1. Psychology for Living
2. Psychology at work

b) Generic Elective-2

(Select any one of the two options)

1. Personality and Skill Development
2. Youth, Gender and Identity

D. SKILL ENHANCEMENT COURSES

(SEC 1 to SEC 4)

1. Understanding of Self
2. Fundamentals of Health Psychology
3. Psychological Strengths and Well - Being
4. School Psychology

B.A. Psychology (Pass Course)

Semester -I

DSC -2A

Introduction to Psychology

Programme Specific Outcomes

Learning Objectives:

- To familiarize the students with historical development of Psychology.
- To impart fundamental knowledge of classical theories and approaches in Psychology.
- To provide knowledge of theoretical perspective of Emotions, Intelligence, Personality and computation of data.

Learning Outcomes:

- Students would gain theoretical knowledge of historical developments in the field of Psychology.
- Students would gain knowledge about various concepts of learning , intelligence and personality
- Students would know about the importance of Emotions, Intelligence, Personality and computation of data.

Credits: 4 (Hrs/week: 4)

Total : 150 marks

Internal Assessment: 20marks

Examination: 80 marks, Time: 3 hours

Practical: 50 marks, Time: 3hours

Note:

1. Nine questions would be set in all. Candidates would be required to attempt five questions.
2. There would be two questions (16 marks each) from each of the four units. Candidates would attempt one question from each unit.
3. Question No. 1 would be compulsory. It shall be based on the entire syllabus and would contain eight short answer questions of 2 marks each.

Unit-I

Psychology: Origin, Development & Areas of Psychology, Emergence of Psychology as a Science.

Methods of Psychology: Experimental and Observation method.

Unit –II

Attention: Nature, Characteristics & Types.

Learning: Nature, Factors affecting Learning, Trial & Error Learning, Laws of Learning.

Unit- III

Personality: Nature, Determinants of Personality, Trait and Type Approach.

Emotions: Nature, Bodily Changes, Primary Emotions (Concept).

Unit – IV

Intelligence: Nature, Factors affecting Intelligence, Theories: Spearman, Thurstone & Cattell.

Statistics: Nature, Types and Distribution of data, Graphical Presentation of Group Data.

Recommended Books:-

1. Atkinson, R.L., & Atkinson, R.L (1985). *Introduction to Psychology*. New York: HBJ Publishers.
2. Banamali, M., & Misra, S. (2016). *Statistics for Behavioural and Social Sciences*. New Delhi: Sage Pub.
3. Ciccarelli, S.K., & White, J.N. (2018). *Psychology*. New Delhi: Pearson Education.
4. Garrett, H.E. (1966). *Statistics in Psychology and Education*. New York: David McKay Company.
5. Singh, A.K. (2006). *Uchatar Samanya Manovigyan: Advanced General Psychology*. New Delhi: Motilal Banarsidass.
6. Singh, A.K. (2007) *Saral Vyavaharik Manovigyan* (Hindi, English). New Delhi: Motilal Banarsidass.

DSC -2A

PRACTICAL

Time: 3 hrs.

Credits – 2

Hrs/week-4

Practical -50 marks

Note:

1. Students have to conduct and report at least *six* (6) practicals.
 2. The examiner will allot one practical at the time of examination. Evaluation will be based on record file, performance and viva.
1. Personality Assessment (EPI / EPQ)
 2. Verbal Test of Intelligence
 3. Performance Test of Intelligence
 4. Study of Emotions
 5. Span of Attention
 6. Observation Test
 7. Maze Learning
 8. Transfer of Learning
 9. Distraction of Attention
 10. Graphical Presentation of Data

B.A. Psychology (Pass Course)

Semester –II

DSC – 2B

Fundamentals of Social Psychology Programme Specific Outcomes

Learning Objectives:

- To impart the knowledge about the process and agencies of socialization.
- To provide the theoretical knowledge regarding social influences.
- To familiarize the students with the concepts of collective behaviours, pro-social behaviour, aggression and primary knowledge about statistics.

Learning Outcomes:

- Students would acquire the knowledge about the process of socialization.
- Students would gain knowledge about social influences on behaviour.
- Students would be apprised with the pro-social behaviour, aggression ,collectivebehaviours and primary knowledge about statistics.

Credits: 4 (Hrs/ week: 4)

Total : 150 marks

*Internal Assessment: 20marks
Examination: 80 marks, Time: 3 hours
Practical: 50 marks, Time: 3hours*

Note:

1. Nine questions would be set in all. Candidates would be required to attempt five questions.
2. There would be two questions (16 marks each) from each of the four units. Candidates would attempt one question from each unit.
3. Question No. 1 would be compulsory. It shall be based on the entire syllabus and would contain eight short answer questions of 2 marks each.

Unit- I

Introduction : Nature and Subject-matter; Methods: Sociometry and Case study.
Socialization : Nature, Process & Agents of Socialization.

Unit - II

Social Influence: Primary and Secondary Social Groups, Conformity: Meaning; Peer Pressure.
Attitude : Nature, Characteristics and Attitude Change.

Unit- III

Aggression : Nature, Determinants & Prevention.

Pro-Social Behaviour: Nature, Determinants (Situational, Social and Cultural); Cognitive Model.

Unit-IV

Collective behaviour: Crowd, Audience & Mob; Characteristics of Crowd; Tajfel & Turner's Theory of Social Identity.

Statistics: Meaning, Applications and Measurement of Central Tendencies.

Recommended Books:-

1. Aronson, E., Wilson, T.D., Akert, R.M., & Sommers, S.R. (2018). *Social Psychology*. New Delhi: Pearson Education.
2. Baron, R.A., & Byrne, D. (2008). *Samajik Manovigyan* (Hindi Sanskaran). New Delhi: Pearson Education.
3. Baron, R.A., Branscombe, N.R., Byrne, D., & Bhardwaj, G. (2012). *Fundamentals of Social Psychology*. New Delhi: Pearson Education.
4. Garrett, H.E. (1966). *Statistics in Psychology and Education*. New York: David McKay Company.
5. Mohanty, B., & Misra, S. (2016). *Statistics for Behavioural and Social Sciences*. New Delhi: Sage.
6. Rai, B.C. (1989). *Social Psychology*. Delhi: Sultan Pub.

DSC – 2B

PRACTICAL

Time: 3 hrs.
Credits – 2
Hrs/week-4
Practical -50 marks

Note:

1. Students have to conduct and report at least *six* (6) practicals.
2. The examiner will allot one practical at the time of examination. Evaluation will be based on record file, performance and viva.

1. Sociometry
2. Social Facilitation / Loafing
3. Social Conformity
4. Measurement of Attitude
5. Aggression / Anger Expression

6. Altruism Scale
7. Peer Pressure Scale
8. Parent- Child Relationship
9. Case Study
10. Graphical Presentation of Demographic Variable based Mean Comparisons

Maharishi Dayanand University, Rohtak
Department of Sociology
BA (Program) with Sociology under CBCS
Scheme of Examination w.e.f. 2020-21

Programme specific learning outcomes of the three year (six semesters) BA (Program) with Sociology are as under:

Learning Objectives:

- To enable students to understand history of sociology and its relationship with the social sciences.
- To equip students with knowledge and develop skill to understand the society.
- To enable students to understand basic sociological concepts and notions of society.
- To gain understanding of nature and importance of social science research and its application in the study of social phenomena.
- To develop ability among students to initiate and conduct research.

Learning Outcomes:

- The course would provide understanding about the need, subject matter and importance of the discipline.
- The course would enhance knowledge about social relationship, social action and institutions.
- The course would provide understanding about different aspects of society and its dynamics.
- The course would strengthen the students to analyse contemporary issues.

BA Programme with Sociology has three types of courses i.e. Core Courses (72 Credits), Discipline Specific Elective Courses, Generic Elective Courses (36 Credits) and Ability Enhancement Courses have been divided into two parts. In the first part (AECC), it includes Ability Enhancement and Skill Enhancement Courses. Ability Enhancement Courses include courses like Environmental Science, English, Communication Skill/Modern Indian Languages (08 Credits). Skill Enhancement Courses are of 16 Credits. The total credits of the BA programme are 132 credits which include theory, tutorials and field work.

Abbreviations: DSC: Discipline Specific Course, DSE: Discipline Specific Elective, AECC: Ability Enhancement Compulsory Course, SEC: Skill Enhancement Course, GE: Generic Elective, MIL: Modern Indian Language, L: Lectures; T: Tutorials; FW: Field Work; IA: Internal Assessment

**B.A Pass Course under Choice Based Credit System
Department of Sociology**

Proposed Scheme of Examination

SEMESTER	COURSE OPTED	COURSE NAME	Credits	Marks	Internal Assessment	Total Marks
I	Ability Enhancement Compulsory Course-I	(English/ Hindi/ MIL Communication)/ Environmental Science	4	80	20	100
	Core Course-I DSC 1A	English/ Hindi/ MIL	6 (5+1)	120	30	150
	Core Course-II DSC 2A	Introduction to Sociology	6 (5+1)	120	30	150
	Core Course-III DSC 3A	DSC 3A	6 (5+1)	120	30	150
II	Ability Enhancement Compulsory Course-II	Environmental Science/ (English/ Hindi/ MIL Communication)	4	80	20	100
	Core course-IV DSC 1B	English/ Hindi/ MIL	6 (5+1)	120	30	150
	Core course-V DSC 2B	Indian Society	6 (5+1)	120	30	150
	Core Course-VI DSC 3B	DSC 3B	6 (5+1)	120	30	150
III	Skill Enhancement Course -1 SEC-1	Social Research	4	80	20	100
	Core Course-VII DSC 1C	English/ Hindi/ MIL	6 (5+1)	120	30	150
	Core Course-VIII DSC 2C	Sociological Thinkers	6 (5+1)	120	30	150
	Core Course-IX DSC 3C	DSC 3C	6 (5+1)	120	30	150
IV	Skill Enhancement Course -2 SEC -2	Gender Sensitization	4	80	20	100
	Core course-X DSC 1D	English/ Hindi/ MIL	6 (5+1)	120	30	150
	Core Course-XI DSC 2D	Methods in Social Research	6 (5+1)	80	20+50 Field Work*	150
	Core Course-XII DSC 3D	DSC 3D	6 (5+1)	120	30	150
V	Skill Enhancement Course -3 SEC-3	Media, Communication and society	4	80	20	100
	Generic Elective -1 GE-1	Rural Sociology OR Social Problems in India	6 (5+1)	120	30	150
	Discipline Specific Elective -1 DSE-1	Marriage, Family and Kinship OR Sociology of Environment OR Industrial Sociology	6 (5+1)	120	30	150

	Discipline Specific Elective – 2 DSE-2	DSE-2	6 (5+1)	120	30	150
VI	Skill Enhancement Course -4 SEC-4	Social change and development	4:0:0=4	80	20	100
	Generic Elective –2 GE-2	Sociology of Deviance OR Sociology of Education	6 (5+1)	120	30	150
	Discipline Specific Elective -3 DSE-3	Population and Society OR Political Sociology OR Sociology of Marginalized Communities	6 (5+1)	120	30	150
	Discipline Specific Elective – 4 DSE-4	DSE-4	6 (5+1)	120	30	150

A. CORE COURSES

1. Introduction to Sociology
2. Indian Society
3. Sociological Thinkers
4. Methods in Social Research

B. DISCIPLINE SPECIFIC ELECTIVE COURSES

a) Discipline Specific Elective-1 (Fifth Semester) (Select any one of the three options)

1. Marriage, Family and Kinship (5) + Tutorial(1)
2. Sociology of Environment (5) + Tutorial(1)
3. Industrial Sociology (5) + Tutorial(1)

b) Discipline Specific Elective-3 (Sixth Semester) (Select any one of the three options)

1. Population in Society (5) + Tutorials (1)
2. Political Sociology (5) + Tutorial(1)
3. Sociology of Marginalized Communities (5) + Tutorial(1)

C. GENERIC ELECTIVE COURSES

a) Generic Elective-1 (Fifth Semester) (Select any one of the two options)

1. Rural Sociology
2. Social Problems in India

b) Generic Elective-2 (Sixth Semester) (Select any one of the two options)

1. Sociology of Deviance
2. Sociology of Education

D. SKILL ENHANCEMENT COURSES (SEC 1 to SEC 4)

1. Social Research
2. Gender Sensitization
3. Media, Communication and society
4. Social change and development

1. The entire course will be of six semesters. Each student should earn a minimum of 132 credits over the entire course (Discipline Specific Course =72 credits; Discipline Specific Elective and Generic Elective Course=36 Credits; Ability Enhancement Compulsory Course=08 Credits; Skill Enhancement Course= 16 Credits. In the 1st Semester there would be three Core Papers and one Ability Enhancement Compulsory Course. In the 2nd Semester there would be three Core Papers and one Ability Enhancement Compulsory Course. In the 3rd semester there would be three Core Papers and one Skill Enhancement Course. In the 4th semester there would be three Core Papers and one Skill Enhancement Course. In the 5th Semester there would be two Discipline Specific Elective Course (DSE-1 & DSE-2), one Skill Enhancement Course and one Generic Elective Course. In the 6th Semester there would be two Discipline Specific Elective Course (DSC-3 & DSC-4), one Skill Enhancement Course and one Generic Elective Course. Each student will opt at least two Generic Elective Course (Minimum 12 Credits) from 5th and 6th Semester, students can opt Generic Elective Course (GE) other than Students of sociology (minimum 06 credits in each semester).
2. All the Core Papers and Ability Enhancement Compulsory Courses are mandatory for the students of BA Programme with Sociology.
3. Maximum marks for each Semester will be of 550 Marks. 150 marks for each Core Courses, Discipline Specific Elective Courses and 100 Marks for AECC and SEC Courses.
4. Field work will be of 50 marks for the Paper Methods in Social Research in 4th Semester. The theory portion will be of 80 marks and internal assessment is of 20 marks. The theory portion shall have 04 units with internal choice. In all there will be of 09 questions out of which student shall be asked to attempt five questions, selecting one from each unit and the 5th compulsory question of short answer type consisting 8 questions of 2 marks each i.e (8x2=16). Each theory question will be of 16 marks thus making it a total of 80 marks (16x5=80). The field-work report shall be evaluated by course in charge with one external examiner followed by viva-voce examination. Further bifurcation of 50 marks field work marks is 40 Marks of Field Work Report and 10 Marks for viva-voce examination.
5. The student from other discipline (can opt one Generic Elective Paper with 06 credits one each from 5th and 6th semester).
6. For the Skill Enhancement Courses, every student has to prepare one assignment based on the topics mentioned in the Exercise. It will be of 5 marks.

It is decided to adopt the new Scheme of Choice Based Credit System of examination whereby all AECC and SEC courses have four units comprising of 80 marks and the Internal Assessment component will be of 20 marks in all the Semesters. In the theory portion students will be asked to attempt four questions from the four units selecting at least one question from each unit and the 5th question shall be compulsory which will cover all units in the format of short answer type questions comprising of about 50 to 60 words. Thus, the total marks for all the five questions i.e. four from the units (16x4=64) and the 5th compulsory question of short answer numbering eight of 2 marks each i.e (8x2=16) thus making the total weightage to 80 marks.

The details of Internal Assessment of 20 marks have been prescribed by the University is given below:-

- | | | |
|--------------------|---|----------|
| (a) One Class Test | : | 10 Marks |
| (b) One Assignment | : | 5 Marks |

(c) Attendance	:	5 Marks
Less than 65%	:	0 Marks
Up to 70%	:	2 Marks
Up to 75%	:	3 Marks
Up to 80%	:	4 Marks
Above 80%	:	5 Marks

Semester I
Discipline Specific Course (DSC-1A)
Introduction to Sociology

Maximum Marks–150
Theory–120
Internal Assessment –30
Time–3hours
L:T:FW
Credit- 5:1:0=6

Learning Objectives

- Understanding the relationship of Sociology with other Social Sciences.
- To enable students to learn relevant concepts in Sociology.
- Understanding culture & socialization.
- To understand the social change.

Learning Outcomes

- It helps to clarify basic concepts in sociology.
- Students will understand the relationship with other Social Sciences.
- Students will enable to understand the trend of change in society.
- Students will gain knowledge about social control.

Note for paper setter:

The question paper will consist of four Units containing eight questions with internal choice from each unit i.e. two questions from each unit. The candidate will be required to answer five questions in all. Four questions will have to be attempted from four units and the fifth question which is compulsory shall be of short answer type question covering the entire syllabus. All the questions shall carry equal marks i.e. 24 each from the I to IV units and 5th compulsory question shall be divided into eight short answer question of 3 marks each i.e. 8x3=24 thus making it the total weightage to 120 marks.

Unit -I

Introduction to Sociology: Nature and Scope, **History** of Sociology, Relationship of Sociology with History, Psychology and Economics.

Unit- II

Basic concepts:Society, Community, Institution, Association, Group: Primary and Secondary; Social Structure, Status and Role.

Unit-III

Socialisation and Social Control: Culture and its types, Socialisation – Stages and Agencies; Social Control: Forms and Agencies.

Unit-IV

Social Change: Types of Change, Factors of Social Change; Forms of Social Change: Evolution, Progress, Development, Revolution.

Reference:

Bottomore, T.B. (1972), *Sociology: A Guide to Problems and literature*. Bombay: George Allen and Unwin (India).

Harlambos, M. (1998), *Sociology: Themes and Perspectives*. New Delhi: Oxford University Press.

Jayaram, N. (1988), *Introductory Sociology*. Madras: Macmillan India.

Johnson, Harry M. (1995), *Sociology: A Systematic Introduction*. New Delhi: Allied Publishers.

Kingsley, Davis. (1981)*Human Society*, New Delhi: Surjeet Publications.

Gisbert. P. (2016), *Fundamentals of Sociology*, New Delhi, Orient Black Swan,

Nagla, Bhupender Kumar & Sheobahal Singh (2019), *Introducing Sociology*, Jaipur, Rawat Publication

Yadav, Ram Ganesh (2014), *Samajshastra Parichay*, New Delhi, Oriental Black Swan

Sachdeva, Bhushan (2012), *Fundamentals of Sociology*, Delhi: Pearson.

Sachdeva, Bhushan (2012),*Samajshastra*, Delhi: Pearson.

Semester II
Discipline Specific Course (DSC-1B)
Indian Society

Maximum Marks–150
Theory–120
Internal Assessment –30
Time–3hours
L:T:FW
Credit- 5:1:0=6

Learning Objectives

- Understanding evolution and diversity of Indian society.
- Familiarizing students with structural inequalities prevalent in Indian society.
- To understand the Issues relevant to Indian family.
- Understanding contemporary issues.

Learning Outcomes

- It would enable students to have thorough understanding of Indian society.
- It would enhance knowledge about the inequalities in Indian society.
- It would equip the students about the important familial issues.
- It would help students to have understanding of contemporary social issues.

Note for paper setter:

The question paper will consist of four Units containing eight questions with internal choice from each unit i.e. two questions from each unit. The candidate will be required to answer five questions in all. Four questions will have to be attempted from four units and the fifth question which is compulsory shall be of short answer type question covering the entire syllabus. All the questions shall carry equal marks i.e. 24 each from the I to IV units and 5th compulsory question shall be divided into eight short answer question of 3 marks each i.e. $8 \times 3 = 24$ thus making it the total weightage to 120 marks.

UNIT – I

Dimensions of Indian Society: Evolution of Indian Society; Socio- Cultural Dimensions; Unity and Diversity in Indian Society; Multi-Ethnic; Multi-Religious; Cultural and Lingual

UNIT – II

Structural Issues: Inequality of Caste, Class and Gender; Backward Castes and Dalits.

UNIT – III

Familial Issues: Family Violence, Dowry, Increasing incidence of Divorce, Problems of the Aged.

UNIT – IV

Contemporary Issues: Poverty: Incidence and Poverty Alleviation Programmes, Unemployment, Development and Displacement

References:

Beteille, Andre (1974), *Social Inequality*, New Delhi: OUP

Dube, S.C.(1991), *Indian Society*, New Delhi : National Book Trust.

Desai Neera & Mathayee Krishnaraj (1997),*Women and Society in India*, Ajanta Bombay.

Desai, Neera and Usha Thakkar (2001), *Women in Indian Society*, National Book Trust, India.

Ahuja, Ram (1997), *Society in India: Concept, Theories and Recent Trends*, Jaipur: Rawat Publication.

Sharma K.L.(ed.) (1994), *Caste and Class*, Jaipur, Rawat Publication.

Sharma, K.L (2011), *Indian Social Structure and Change*, Rawat Publications.

Sharma, G.L (2015), *Samajik Mudde*, Rawat Publication

(B.A Pass Course under Choice Based Credit System

Department of Sanskrit

Proposed Scheme of Examination

SEMESTER	COURSE OPTED	COURSE NAME	Credits (C+T)	Marks	Internal Assessment	Total Marks
I	Ability Enhancement Compulsory Course-1	(English/Hindi/MIL Commnication)/ Environmental Science	4	80	20	100
	Core Course-I DSC 1A*	English/Hindi/MIL	6(5+1)	120	30	150
	Core Course-II DSC 2A	Sanskrit Poetry	6(5+1)	120	30	150
	Core Course -III	DSC 3A	6(5+1)	120	30	150
II	Ability Enhancement Compulsory Course-2	Environmental Science/ (English/Hindi/MIL Commnication	4	80	20	100
	Core Course-IV DSC 1B	English/Hindi/MIL	6(5+1)	120	30	150
	Core Course-V DSC 2B	Sanskrit prose	6(5+1)	120	30	150
	Core Course-VI	DSC 3B	6(5+1)	120	30	150
III	Skill Enhancement Course-1 SEC-1	Basic Elements of Jyotish	4	80	20	100
	Core Course-VII DSC 1C	English/Hindi/MIL	6(5+1)	120	30	150
	Core Course-VIII DSC 2C	Sanskrit Drama	6(5+1)	120	30	150
	Core Course-IX	DSC 3C	6(5+1)	120	30	150
IV	Skill Enhancement Course-2 SEC-2	Basic Elements of Ayurveda	4	80	20	100
	Core Course-X DSC 1D	English/Hindi/MIL	6(5+1)	120	30	150
	Core Course-XI DSC 2D	Sanskrit Grammar	6(5+1)	120	30	150
	Core Course-XII	DSC 3 D	6(5+1)	120	30	150
V	Skill Enhancement Course-3 SEC-3	Yogasutra of Patanjali	4	80	20	100
	Generic Elective-I	Political thoughts in Sanskrit Literature	6(5+1)	120	30	150
	Discipline Specific Elective-1	Philosophy, Religion & Culture in Sanskrit Tradition	6(5+1)	120	30	150
	Discipline Specific Elective-2	DSE-2	6(5+1)	120	30	150
VI	Skill Enhancement Course-4 SEC-4	Ancient Indian Theater	4	80	20	100
	Generic Elective-2	Ethical & Moral Issues in Sanskrit Literature	6(5+1)	120	30	150
	Discipline Specific Elective-3	Ancient Indian Perspective in Personality Development	6(5+1)	120	30	150
	Discipline Specific Elective-4	DSE-4	6(5+1)	120	30	150

A. CORE COURSES

1. Sanskrit Poetry
2. Sanskrit Prose
3. Sanskrit Drama
4. Sanskrit Grammar

B. MIL SANSKRIT

(Semester I/II)

1. Upanishad and Gita
2. Niti Literature

(Semester III/IV)

3. Grammar and Translation
4. Sanskrit Grammar

C. DISCIPLINE SPECIFIC ELECTIVE COURSE

1. Philosophy, Religion and culture in Sanskrit tradition
2. Indian perspective in personality development

D. GENERIC ELECTIVE COURSES

1. Political thought in Sanskrit literature
2. Ethical and Moral issues in Sanskrit literature

E. SKILL ENHANCEMENT COURSE

(SEC-1 to SEC-4 from Semester III to VI)

1. Basic Elements of Jyotisha
2. Basic Elements of Ayurveda
3. Yogasutra of Patanjali
4. Ancient Indian Theatre

Core Courses

BA (Programme)

Discipline specific Core (DSC) 4 Courses

Semester I	Semester II
DSC-I	DSC-2
Sanskrit Poetry	Sanskrit Prose
Semester III	Semester IV
DSC-3	DSC-4
Sanskrit Drama	Sanskrit Grammar

DSC-1

Sanskrit Poetry

[A] Prescribed Course:	Total 48 Credits
Section 'A' Raghuvansham	12credits
Section 'B' Shishupalavadham	12credits
Section 'C' Nitishatakam	12credits
Section 'D' History of Sanskrit Poetry	12credits

[B] Course Objectives:

This course aims to get the students acquainted with the Classical Sanskrit Poetry. It also intends to give an understanding of literature, through which students will be able to understand the basics of Sanskrit. The course also seeks to help the students negotiate the text independently with the help of proficiency of Sanskrit.

[C] Unit-wise Division:

Section 'A'

Raghuvansham

Unit: I Introduction (Author and Text) Canto-I (Verses 1-10) Meaning/translation. Explanation, Story of Raghu Clan, Characteristics of Raghu, Characteristics of Dilipa.	6 credits
Unit: II Canto-1 (Verses: 11-25) Meaning/translation. Explanation, Role of Dilipa for the welfare of the subjects. Appropriateness Of title, Background of given contents.	6 credits

Section 'B'

Shishupalavadham

Unit: I Introduction (Author and Text), Appropriateness of title, Background of given contents. Canto II, Verses 26-37, Grammar, Translation, Explanation, Poetic excellence, thematic analysis.	6 Credits
Unit: II Verses 42-56, Grammar, Translation, Explanation, Poetic excellence, Thematic Analysis. $ek?ks \text{ I } fUr =; ks \times q \text{ k}k\% \text{ मेघे } ek?ks \times ra \text{ o}; \%$ $rkon \sim Hkk \text{ Hkkj } o\text{Hkk}fR ; \text{ kol}ek?kL; \text{ uk}n; \%A$	6 credits

Section 'C'

Nitishatakam

Unit: I Verses (1-10) translation, explanation.	6 Credits
Unit: II Verses (11-20) translation, explanation, Social experiences of Bhartrihari, Types of Fool.	6 Credits

Section 'D'

History of Sanskrit Poetry

Unit: I Life and works of Ashvaghosha, Kalidasa, Bharavi, Magha, Shriharsha, Jayadeva and Bhartrihari.

6 credits

Unit:II Origin and Development of Different types of Mahakavya and Gitikavya with special reference to the above mentioned poets and their works.

6 credits

[D] Suggested Books/Readings

1. त्रिपाठी, कृष्णमणि (मल्लिनाथकृत सञ्जीवनीटीका) चौखम्बा सुरभारती प्रकाशन, वाराणसी
2. झा, तारिणीशभर्तृहरिकृतनीतिशतकम्, संस्कृतटीका, हिन्दी व अंग्रेजीव्याख्यानवादसहित, रामनारायणलालबेनीमाधव, इलाहाबाद, 1976
3. त्रिपाठी, बाबूराम (सम्पा.) भर्तृहरिकृत नीतिशतकम् , महालक्ष्मी प्रकाशन, आगरा, 1986
5. शिशुपालवधम्- माघ, चौखम्बा विद्याभवन, वाराणसी
6. Devadhar C.D. (Ed.), Raghuvamśam of Kālidāsa, MLBD. Delhi.
7. Nandargikar Gopal Raghunath (Ed.), Raghuvamśam of Kālidāsa, MLBD, Delhi.
8. Krishnamachariar, History of Classical Sanskrit Literature, MLBD, Delhi.
9. Kale M.R. (Ed.), Raghuvamśam of Kālidāsa, MLBD, Delhi.
- 10 . . Keith, A.B., History of Sanskrit Literature, MLBD, Delhi.

DSC-2

Sanskrit Prose

[A] Prescribed Course:

Total credit-48

Section 'A'	Shukanasopadesha	20 credits
Section 'B'	Shivarajavijayam, Nihshwasa-I	16 credits
Section 'C'	Survey of Sanskrit literature- prose	12 credits

[B] Course objectives”:

This course aims to acquaint the student with the classical Sanskrit prose literature. One of the most famous prose texts of modern era, namely Shivarajavijayam is also included here for the students to get acquainted with the beginnings of modern Sanskrit literature. The course also seeks to help students negotiate the text independently with the help of proficiency of Sanskrit.

[C] Unit-wise division:

Section 'A'

Shukanasopadesha

Unit-I Introduction-Author/text, 14 credits

भुकनासोपदे”क&I Ei w kz ¼, oa l efrØkeLrø-----i hrân; ks egr± fLFkRok
Lohkouekt xke½

Unit-II Society and political thought depicted in Shukanasopadesha, logical meaning and application of sayings 6 credits

Section-'B'

Shivarajavijayam, Nihshwasa-I

Unit-I Introduction-Author/Text, Text reading (Grammar, Translation and Explanation) poetry

excellence, plot, f”kojktfot± e-¼fu%”okl &1½&आj EHK l s rkor~l f{kl; dF; rka
dk n”II भारतवर्शस्येति’ पर्यन्त

8 credits

Unit:II The end of the text, text reading (Grammar, Translation, and Explanation), Poetic

excellence, plot, ¼तत्संश्रुत्य भारतवशkhz; n”kkl dLej .kl atkr”kksd% l ekfiri ; Ur½

8 Credits

Section 'C'

Survey of Sanskrit Literature: prose

Unit: I Origin and development of Sanskrit prose. Subandhu, Bana, 6 Credits
Dandin, Ambikadatta Vyasa.

Unit:II Panchatantra, Hitopadesa, Vetalapancavinshatika, Simhasanadvatrinsika 6 credits
AndPurushapariksha.

[D] Suggested Books/Readings:

1. भानुचन्द्रसिंह, भुकनासोपदे”क% l dNir VhdK rFkk fgUhh 0; k[; k o vuqkn l fgrA
- 2- i gykn dpekj ¼0; k-), भुकनासोपदे”k] egj pln y{eunkl] fnYyh] 1974A

- 3- I (eu, रामनाथ भार्मा (व्या-), भुक्नासोपदे”k] I kfgR; Hk. Mkj] fnYyh] 1968A
- 4- mi k/; k;] cyno, संस्कृत साहित्य का इतिहास, भारदा निकेतन, वाराणसी।
- 5- xks y, i hfri Hkk] I LÑr I kfgR; dk bfrgkl] jktLFkkuh xJFkkxkj] tks/ki gA
- 6 ऋशि, mek”kdj भार्मा संस्कृत साहित्य का इतिहास, चौखम्बा भारती अकादमी, वाराणसी।
- 7f=i kBh, jk/kkoYyHk, I LÑr I kfgR; dk vfhkuo bfrgkl] fo”ofo | ky; i xdk”ku] okj.k. kl hA

8Keith, A.B. History of Sanskrit Literature, also Hindi translation, MLBD, Delhi

(हिन्दी अनुवाद, मंगलदेव भास्त्री, मोतीलाल बनारसीदास, दिल्ली)A

9Krishnamachariar, History of Classical Sanskrit Literature, MLBD, Delhi.

10Shastri Gaurinath, A Concise history of Sanskrit literature, MLBD, Delhi.

11Winternitz, Maurice, Indian literature (Vol. I-III), also Hindi translation, MLBD, Delhi.

DSC-3

Sanskrit Drama

[A] Prescribed course:

Total Credit-48

Section 'A'	Pratimanatakam: Act I&III-Bhasa	14 credits
Section 'B'	Abhijanashakuntalam Act IV-Kalidasa	16 Credits
Section 'C'	Technical Terms from Sanskrit Dramaturgy	06 Credits
Section 'D'	History of Sanskrit Drama and an introduction to Principle, Sanskrit Dramas	12 Credits

[B] Course objectives:

This course aims to acquaint the students with two most famous dramas of Sanskrit literature, which not only reflect poetic excellence but also depict contemporary society and highlight human values.

[C] Unit-wise division:

Section 'A'

Pratimanatakam: Act I&III-Bhasa

Unit: I First Act Introduction, text reading (Grammar, translation and explanation), poetic excellence, plot. 7 credits

Unit: II Third Act Introduction, text reading (Grammar, translation and explanation), poetic excellence, plot. 7 credits

Section 'B'

Abhijanashakuntalam Act IV-Kalidasa

Unit: I Fourth Act

Text reading (grammar, translation, explanation), poetic excellence, plot, personification of nature. 8 credits

Unit: II General Introduction of Abhijanashakuntalam, Kavyesu natakam ramyam, upama, language of Kalidasa, dhvani in Kalidasa, purpose and design behind Abhijanashakuntalam. 8 credits

Section 'C'

Technical terms from Sanskrit Dramaturgy

Unit: I ukVd] uk; d] ukf; dk] i 10j Mx ukUnh] l #/kkj] usi F; , i Lrkवना, कंचुकी एवं विदूशक।

3 credits

Unit: II v³d] Loxr] i dk''k] vi okfjr] tukfUrd] vkdk''भाशित, विशकम्भक,

3 credits

i 10''kd, oa Hkj rokD; A

Section 'D'

Unit: I History of Sanskrit Drama

6 credits

Unit: II Some important dramatists and dramas: Bhasa, Kalidasa, Shudraka, Vishakhadatta, Harsha, Bhavabhuti and their works. 6 credits

[D] Suggested Books/readings:

- 1- i Ur] I pks/kplnz vfHkKku"kkd@rye} ekshyky cukj I hnkI] fnYyhA
- 2- भारती, I j dlnno vfHkKku"kkd@rye} j keukj k; .k cuhi zI kn] bykgkcknA
- 3- vkpk;] ukj k; .k ke vfHkKku"kkd@rye} fu.kz I kxj i d A
- 4- Devadhar C.D (Ed.), Abhijnanashakuntalam, MLBD, Delhi.
- 5- Kale M.R. (Ed.), Abhijnanashakuntalam, MLBD, Delhi.
- 6- Gajendra Gadakar (Ed.), Abhijnanashakuntalam.
7. Bose, Ramendramohan Abhijnanasakuntalam, Modern Book Agency, Calcutta.
- 8- mi k/; k;] Hkkxor"kj .k dkfynkl] dfo vkj dk0;] Hkkj rh; Kkui hB] dk"khA
- 9- f}onhgtkjhi zI kn] dkfynkl dh ykfyR; ; kstuk] jktdey i d k"ku] fnYyhA
- 10- feJ] पंकज कुमार भाकुन्तलविशयक रम्यत्व की अवधारणा, परिमल पब्लिके"ku] fnYyhA

DSC-4

Sanskrit Grammar

[A] Prescribed course:

Total 48 Credits

Section 'A'	Laghusiddhantakaumudi : Sanjna prakarana	08 credits
Section 'B'	Laghusiddhantakaumudi : Sandhi prakarana	20 credits
Section 'C'	Laghusiddhantakaumudi: Karak prakarana	20 credits

[B] Course objectives:

This course aims to get student to learn the basics of Sanskrit grammar through Laghusiddhantakaumudi based Samjna, Sandhi and Vibhakti rakarana. Situdents will be able to learn the application of panini's sutras.

[C] Unit-wise Division:

Section 'A'

Laghusiddhantakaumudi: Sanjna prakarana

Unit: I Sanjna Prakarana 8 credits

Section 'B'

Laghusiddhantakaumudi: Sandhi prakarana

Unit: I ac sandhi: yan, gana, dirgha, ayadi, vridhhi and purvarupa 8 credits

Unit: II hal sandhi: scutva, stutva, anunasikatva, chhatva and jastva 8 credits

Section 'C'

Karaka

Unit: I Karaka Prakarana

20 credits

[D] Suggested books/readings:

- 1- धरानन्द भास्त्री य?क?ल) क?रुदक?ण?ह] e?y , oa fgnh 0; k[; k] fnYyhA
- 2- भीमसेन भास्त्री, लघुसिद्धान्तकौमुदी भैमी व्याख्या (भाग-1), भैमी प्रका"ku] fnYyhA
- 3- चारुदेव भास्त्री, व्याकरण चन्द्रोदय (भाग-1,2 एवं 3), मोतीलाल बनारसीदास, fnYyhA
- 4- l R; i ky fl g ?l i k-½] y?k?l) क?रुदक?ण?ह% i ?dkf"kd k ukeh fglUnh 0; k[; k l fgrk] f"kokfyd i fcyds"ku] fnYyh] 2014A
- 5- V.S. Apte, The students' guide to Sanskrit composition, Chowkhamba Sanskrit series, Varansi (Hindi translation also available).
- 6- M.R. Kale, Higher Sanskrit grammar, MLBD, Delhi (Hindi translation also available).
- 7- Kanshiram, Laghusiddhantakaumidi (Vol. 1), MLBD, Delhi. 2009.
- 8- Online tools for Sanskrit grammar developed by computational linguistics group, Deaprtment of Sanskrit, University of Delhi: <http://du.ac.in>.

MODERN INDIAN LANGUAGES (MIL)*

(Any 2 Papers)

Semester: I/II

Core-MIL (Sanskrit)-1

Sanskrit as MIL AI-Upanisad and Gita

Core-MIL (Sanskrit)-1

Sanskrit as MIL BI-Niti literature

Semester: III/IV

Core-MIL (Sanskrit)-2

Sanskrit as MIL A2-Grammar and Translation

Core-MIL (Sanskrit)-2

Sanskrit as MIL B2-Sanskrit grammar

Core MIL-A1

Upanishad and Gita

[A] Prescribed Course:

Total 48 Credits

Section 'A'	Upanishad: Ishavasyopanishad	12 credits
Section 'B'	Gita	30 credits
Section 'C'	General introduction to Upanishadic philosophy	06 credits

[B] Course objectives:

Objective of this course is to get students to know about the principle thesis of the Upanishad and the Gita.

(C) Unit-wise division:

Section 'A'

Upanishad: Ishavasyopanishad

Unit: I	Text Introduction to Ishavasyopanishad	02 credits
Unit: II	Text Reading of Ishavasyopanishad	10 credits

Section 'B'

Gita: Chapter Two

Unit: I	Text Introduction and Text reading: Chapter Two Verse: 01-25	10 credits
Unit: II	Text reading: Chapter Two, Verse: 26-72	20 Credits

Section 'C'

General Introduction to Upanishadic Philosophy

Unit: I	General introduction to Upanishadic Philosophy: atman, Brahma, ishvara, karma, srshti.	06 credits
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[D] Suggested books/readings:

1. guṇku iḥ kn i kṛkj ¼l Ei kn d¼] bḥ"āvasyaopaniṣad, gītapreṣa gorakṣapur।
2. f"āvanāraṣyaṇa bhāṣṭrī (vyā), ī"āvasyaopaniṣad, parimla prakā"ku] fnYyh] 1996A
3. bhā"ik frokj h ¼0; k¼] bḥ"āvasyaopaniṣad, bhūmika eḅvā vyākṣyā, bhāratīya viddhā iḅdk"ku] fnYyh] 1997A
4. baladeḅv upādhyāy, saṅskṛta sahitya ka itihāsa, bhāradā nīketana, varāṇasī।
5. cynḅ mi k/; k;] ofnd l kfgR; vkj l ḅNfr] okj.k.kl hA
6. i hfri Hkk xks y] l ḅNr l kfgR; dk bfrgl] jktLFkkuh xḅFkkxkj] tks/ki gA
7. mek"ānkar bhārmā ṛṣi: saṅskṛta sahitya ka itihāsa, cōkṣmbā bhāratī akādāmī, okj.k.kl hA
8. jeṣ"ā bhāradwāj, navajāraṇa eḅvā svatantraṭā āndolan meḅv upaniṣadō kī bhūmika, fo | kfuf/k iḅdk"ku] fnYyhA
9. j k/kkoYyHk f=i kBh] l ḅNr l kfgR; dk vfhkuo bfrgl] fo"fo | ky; iḅdk"ku] okj.k.kl hA
10. Keith, A.B.: History of classical Sanskrit literature, MLBD, Delhi.
11. Krishnamachariar, History of Sanskrit literature, MLBD, Delhi.
12. Gaurinath Shastri, A concise History of Sanskrit literature, MLBD, Delhi.

13. Winternitz, Maurice, Indian literature (Vol. 1-III), also Hindi translation, MLBD, Delhi.

**Core MIL-B1
Niti Literature**

[A] Prescribed course:

Total 48 Credits

Section 'A'	Panchatantram	20 credits
Section 'B'	Nitishatakam	16 credits
Section 'C'	General introduction to Sanskrit Niti literature	12 credits

[B] Course objectives:

This course aims to get the students acquainted with the outline of Sanskrit Niti literature through texts panchatantram and Nitishatakam with the General introduction to Sanskrit niti literature.

(C) Unit-wise division:

Section 'A'

Panchatantram

(A study of these texts is expected for answering critical questions, translations and explanations).

Unit: I Text Introduction of the following: Ksapanakakatha, simha-karaka-10 credits
-murkhabrahmana katha

Unit: II Text introduction of the following: murkhapandita-Katha, 10credits vanara-
magaramaccha-katha and gangadattamanduka katha

Section 'B'

Nitishatakam

(A study of these texts is expected for answering critical questions, translations and explanations) 6 credits

Unit: I Introduction to nitishatakam

Text reading of nitishatakam from Verse: 01-10

Unit: II Text reading of nitishatakam from verses: 11-30 10 credits

Section 'C'

General Introduction to Sanskrit Niti literature

Unit: I Origin and development of niti literature 6 credits

Unit: II 6credits

[D] Suggested books/readings:

1. भयामाचरण पाण्डेय (व्या.), पंचतंत्रम् (विशुभु भार्मा), मोतीलाल बनारसीदास, दिल्ली, 1951A
2. A Collection of Ancienct Hindu Tales (ed.) Franklin Edgerton, Johannes Hertel, 1908.
3. M.R. Kale, Panchatantram (ed. And trans.), Motilal Banarasidass, Delhi. 1999.

Core MIL-A2

Grammar and Translation

[A] prescribed course:

Total 48 Credits

Section 'A'	Sanjna and Sandhi	18 credits
Section 'B'	Samasa	10 credits
Section 'C'	Vibhkyartha Prakarana	10 credits
Section 'D'	Composition	10 credits

[B] Course Objectives:

This course aims to get the students to know the basics of Sanskrit Grammar, including rules of Sanjna, Sandhi, Samasa and Vibhkyarath Prakarana based on Laghusiddhantakaumudi, a primer of paninian grammar. Besides, the students will be able to translate sentence and write short paras in Sanskrit.

(C) Unit-wise division:

Section 'A'

Sanjna and Sandhi

Unit: I	Sanjna prakarana, following Sandhis according to Laghusiddhantakaumudi- ac- yan, guna, ayadi,vriddhi, purvarupa	9 credits
Unit: II	hal and visarga Sandhis- scutva, stutva, anunasikatva, chhatva, satva, utva, lopa, rutva.	9 credits

Section 'B'

Samasa

Unit: I	Basic concepts of Samasa and types	10 credits
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Section 'C'

Vibhaktyarth Prakarana

Unit: I	Vibhaktyartha prakarana (laghusiddhantakaumudi)	10 credits
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Section 'D'

Composition

Unit: I	Short essays on traditional and modern subjects, Translation from and into Sanskrit.	10 credits
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[D] Suggested books/readings:

1. धरानन्द भास्त्री, लघुसि) KUrndkēph] eiy , oa fgnh 0; k[; k] ekrhyky cukj | hnkl] fnYyhA
2. भीमसेन भास्त्री, लघुसिद्धान्तकौमुदी] Hkēh 0; k[; k ¼Hkx&1½] Hkēh i zdk''ku] fnYyhA
3. पुरुदेव भास्त्री, व्याकरण चन्द्रोदय (भाग-1,2 एवं 3), मोतीलाल बनारसीदास, fnYyhA
4. I R; i ky fl g ¼l i k-½] y?kf|) KUrndkēph% i zdkf''kdk ukeh fgnh 0; k[; k l fgrk] f''kokfyd i fcyds''ku] fnYyh] 2014A
5. V.S. Apte, The students' guide to Sanskrit composition, Chowkhamba Sanskrit series Varanasi (Hindi translation also available).
6. M.R. Kale, Higher Sanskrit Grammar, MLBD, Delhi (Hindi translation also available).

7. Kanshiram, Laghusiddhantakaumudi (Vol. 1), MLBD, Delhi, 2009.
8. Online Tools for Sanskrit grammar developed by computational linguistics group, Department of Sanskrit, University of Delhi: [htt://Sanskrit.du.ac.in](http://Sanskrit.du.ac.in).

Core MIL-B2

Sanskrit Grammar

[A] prescribed course: Total 48 Credits

Section 'A'	Declensions, Conjugations and indeclinables	16 credits
Section 'B'	Sandhis, Compounds and Karaka-vibhakti rules	16 credits
Section 'C'	Krt suffixes	10 credits
Section 'D'	Composition	06 credits

[B] Course objectives:

To introduce basic Sanskrit to students who have not studied Sanskrit at all or have studied it only up to class VIII or less and wish to revive their knowledge of the language. This will also enable them to compose short sentences and paragraphs on the basis of their knowledge of grammar.

(C) Unit-wise division:

Section 'A'

Declensions and conjugations

Unit: I Masculine words- stems endings in vowels (4): 4 Credits
 Noun Ending 'a', 'i', 'u' and 'r' only, rama,
 muni, guru, pitr
Stems ending in consonants: atman, dandin, candramas

Unit:II Feminine words: stems endings in vowels (4):
 Noun Ending 'a', 'i' 'I' and 'r' only, rama, 4 Credits
 mati, kumari, and matr

Stems ending in consonants:

vac and sarit.

Unit:III Neuter Words- stem ending in vowels (4):

Noun Ending 'a', 'i', and 'u' only, phala, vari and madhu
 Stem ending in consonants: payas, jagat, pronouns 4 Credits
 Asmad, yusmad, tad, yad, idam, etad, kim
 (in all three genders)

Numerals

declension of numeral words form eka to dashan
 (in all three genders)

Conjugations:

Unit: IV *path, pac, bhū, kr, as, nrt, sru, jna,* 4 Credits
(in lat, lrt, lan, lot and vidhilin)

Section 'B'

Sandhi, compound and karaka-vibhakti rules

Unit: I	Rules of Sandhi: Ac sandhi (6) Yan, guna, dirgha, ayadi, vridhhi and purvarupa hal sandhi (5): <i>Scutva, stutva, anunasikatva, chhatva and jastva</i> Visarga sandhi (4): <i>Utva, lopa, satva, rutva</i>	6 Credits
Unit: II	Compounds: The concept of compound and its types Karaka-vibhakti rules Concept of karaka and vibhakti Types of karaka Karaka-vibhakti and Upapada-vibhakti	5 Credits 5 Credits

Section ‘C’
Krt suffixes

Unit: I	Krt Suffixes : <i>tavyat, aniyar, yat, nyat, kta, ktavatu, shatri, shanac, tumun, ktva and lyap</i>	10 Credits
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Section ‘D’
Composition

Unit:II	Short sentences, paragraph writing	06 Credits
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[D] Suggested books/readings:

1. Chakradhar Nautiyal Hans, Brhad Anuvada Kaumudi, Motilal Banarasidas, New Delhi.
2. Apte, V.S., The students guide to Sanskrit Composition, Chowkhamba Sanskrit Series, Varnansi, (Hindi translation also available).
3. Kale, M.R. Higher Sanskrit grammar, MLBD, Delhi. (Hindi translation also available).
4. M.R. Kale, Higher Sanskrit grammar, MLBD, Delhi (Hindi translation also available).
5. Sambhashana sandesha, Sanskrit Bharati, Bangalore.
6. Online Tools for Sanskrit grammar developed by Computational linguistics group, Department of Sanskrit, University of Delhi:<http://Sanskrit.du.ac.in>.

Discipline Specific Eleteive

(DSE)

BA (Programme)

Semester V/VI

DSE-I

Philosophy, Religion and culture in Sanskrit tradition.

DSE-II

Indian perspectives in personality development.

DSE-I
Philosophy, Religion and Culture in Sanskrit Tradition

[A] Prescribed course: Total 48 Credits

Section 'A'	Dharma	20 credits
Section 'B'	Samskara and Purushartha	14 credits
Section 'C'	Swadharna	14 credits

[B] Course objectives:

Objective of this course to introduce Philosophy, Religion and Culture in Sanskrit tradition to the students.

(C) Unit-wise division:

Section 'A'
Dharma

Unit: I	Nature of Ishwar in Indian philosophy: acc. To Nyaya, Yoga, Bhakta as a morally evolved person-Gita Chapter XII-verses 13-20)	7 Credits
Unit: II	Concept of dharma- ten fold dharma and its versions, definitions of satya, ahimsa, asteya, Aparigraha, pancha maha yajna: theory of three debts.	6 Credits
Unit: III	Various names of Ishwar according to Guna, Karma, svabhava (Satyarth Prakash-sammulasa-I)	7 Credits

Section 'B'
Samskara and Purusartha

Unit: I	Process of acculturation-importance of Samskara	7 Credits
Unit: II	Aim of human life-theory of purushartha	7 Credits

Section 'C'
Swadharna

Unit: I	Karmayoga, sthita prajna in the Gita (Chapter II- 47 to 72)	7 credits
Unit: II	Prakrti- three gunas and their impact on personality Gita Chapter-XIV, verses:5-20	7 credits

[D] Suggested books/readings:

1. Radhakrushana, Gita.
2. Gita with Hindi translation, Gita press, Gorakhpur
3. Rajbali Pandey, Hindu Samskar.
4. f''konÙk Kkuh] Hkkj rh; I dÑfrA
5. jktcyh i k.Ms] fgUnw I ddkjA
6. i h-oh- dk. kj /ke''kkL= dk bfrgkl] ¼[k. M&1¼A

DSE-2
Indian Perspectives in Personality Development

[A] Prescribed course: Total 48 Credits

Section 1	Historical perspective	04 credits
Section 2	Concept of a person	20 credits
Section 3	Personality Types	04 credits
Section 4	Measures for behavioral Improvement	20 Credits

[B] Course objectives:

Indian philosophical tradition advocates an integrated approach to human personality where material and psychological growth complement each other. This course seeks to introduce some theoretical concepts and practical techniques for development of the human person.

(C) Unit-wise division:

Section ‘A’

Physical personality

Unit: 1 Historical perspective: Rigveda, 1.164.37:
Chhandogyopanishad, VI. 2.3, VI. 8.6,
VIII. 1.4 Brhadaranyakopanishad, II.5.18-19 4Credits

Section ‘B’

Concept of a person

Unit:2 Concept of of a Person, Gita, Chapter: 1, Verses” 1-30
Jiva as Core and Eight-fold Nature as Cover
Kshetrajna as core and Ksetra as Cover Chapter-13, Verses-1-2,
Chapter-13, Verses: 5-6, Chapter-13, Verses-19-23. 20 Credits
Aksara as core and Ksara as cover, Chapter-15,
Verses: 7-11 and 6-19)

Section ‘C’

Personality Types

Unit:3 Personality Types
Gita, Chapter-14, Verses: 5-14, Chapter-17, Verses: 2-6, 04 Credits
Chapter-17, Verses: 11.21

Section ‘D’

Measures for behavioral Improvement

Measures for behavioral Improvement, Control of Senses 20 Credits
and Mind, Gita- chapter-2, verses (59-60, 64,68) Chapter-3,
verses 41-43, chapter-6, verses: 19-23, Right Faith (Gita,
Chapter, 9, verses: 3, 22, 23-28, 30-34)

Unit:4 Recognition of Svadharma-Inner Urge: (Gita, Chapter: 2, Verses: 31,41-44 Chapter-3, Verses: 4,5, 8, 9, 27-30, 33-34, 20 Credits Chapter: 4, Verses: 18-22, Chapter-5, Verses: 11-12, Chapter-7, Verses: 15-18, 20-23, 27-29).
Channelizing Innate Urges on Social Lines: (Gita, Chapter-18, verses: 41-62)

[D] Suggested books/readings:

1. Radhkrishana, the Bhagvadgita.
2. Gita with Hindi Translation, Gita press, Gorakhpur

Generic Elective (GE)

B.A (Programme)

Semester V/VI

GE-I

Political thought in Sanskrit literature

GE-II

Ethical and Moral issues in Sanskrit literature.

GE-I

Political Thought in Sanskrit Literature

[A] Prescribed course: Total 48 Credits

Section 'A' Basic Features of Ancient Indian political thought	20 credits
Section 'B' Ancient Indian political thought: Origin and development	14 credits
Section 'C' Cardinal theories and ancient Indian political thinkers	14 credits

[B] **Course objectives:**

Fundamental concepts of Indian political thought have been discussed in Dharma-Shastra literature as the scientific branches of knowledge in ancient India. The aim of this course is to make the students acquainted with various aspects of Indian political thought and institutions of polity as propounded in the ancient Sanskrit texts such as Vedic Samhitas, Mahabharata, Puranas, Kautilya's Arthashastra and other works known as Nitishastra.

(C) **Unit-wise division:**

Section 'A'

Basic features of Ancient Indian political thought

Name, Scope and sources of ancient Indian political thought:

Unit: I Name of the Science: 'Dandaniti', 'Dharmashastra', 10 Credits
'Nitishastra', Scope of Indian political thought: relation with Dharma, Artha and Niti: sources of ancient Indian political thought: Vedic literature, Purana, Ramayana, Mahabharata, Dharmashastra, Nitishastra Kautilya's Arthashastra and Rajasasana (inscriptions).

Unit: II Nature, Types and theories of the State: nature of the State 10 Credits
in Arthashastra (6.1) and Manusmrti (9.294) with special reference to Saptanga-theory: Svami, Amatya, Janapada, Pura, Kosa, Danda and Mitra.
Types of the State: Rajya, Svarajya, Bhojya, Vairajya, Maharajya, Samarajya (Aitreya Brahmana, 8.3, 13-14: 8.4.15-16).

Section 'B'

Ancient Indian Political Thought: Origin and Development

Indian Political thought from Vedic period to Buddhist period:

Unit:1 Election of King by the people' Visas in Vedic period: (Rigveda, 10.173:10.174, Atharvaveda, 3,4, 2;6. 87.1-2)
Parliamentary Institutions: 'Sabha', 'Samiti' and 'Vidatha' in Vedic period (Atharvaveda, 7.12.1; 12.1.6 : Rgveda, 10.85.26), 6 credits
King-maker Council: 'Rajakartarah and Ratnis' in Vedic period (Atharvaveda, 3.5.6-7 and Satapathabrahmana,

5.2.5.1); Coronation Ceremony of the King 'Samrata' (Satapathabrahmana, 51.1.8-13: 9.4.1.1-5) Republics in the Buddhist period (Diggnikaya, Mahaparinibhana Sutta, Anguttaranikaya, 1.213; 4.252, 256).

Unit: III Indian Political thought from Kautilya to Mahatma Gandhi:

Kautilya's concept of welfare state (Arthasashtra, 1.13); Essential Qualities of King (Arthasashtra, 6.1.16-18); Duties of King and State 'Rajadharma' (Mahabharata, Santiparva, 8 credits 120.1-515; Manusmrti, 7.1-15; Sukraniti, 1.1-15) Constituent Elements of Jain political thought (Somadeva's Nitivakyamrta, 9.1.18 and 19.1.10); Relevance of Gandhian political thoughts in modern period (Gandhi Gita of Prof. Indra, 5.1.25).

Section 'C'

Cardinal Theories and Ancient Indian political thinkers

Unit: I Cardinal theories of Indian political Science: 'Saptanga' theory of State: Svami, Amatya, Janapada, Pura, Kosa, Danda and Mitra (Arthashastra-6.1, Mahabharata-Santiparva-56.5, Shukraniti, 1.61-62).

'Mandala theory of inter-State relations: 'Shadgunya' 8 credits
Policy of War and peace diplomacy: Sandhi, Vighraha, Yana, Asana, Sansrya and Dvaidhibhava.
'Chaturvidha Upaya' for balancing the power of State: Sama, Dama, Danda, Bheda.
Three types of State power 'Sakti': Prabhu Sakti, Mantra Sakti, Utsaha Sakti.

Unit: II Prominent Indian political thinkers: Manu, Sukracharya, 6 credits
Kautilya, Kamandaka, Somadeva Suri and Mahatma Gandhi.

[D] Suggested books/readings:

1. R.P. Kangale (ed.) Arthashastra of Kautilya, Motilal Banarsidas, Delhi, 1965.
2. R.T.H. Griffith (Trans.), Artharvaveda Samhita, 1896-97, rept. (2 vols) 1968.
3. H.P. Shastri, Mahabharata (7 vols), London, 1952-59.
4. P. Olivelle (ed.&trans.), Manu's Code of Law: A critical edition and translation of the Manava-Dharmashastra, OUP, New Delhi, 2006
5. H.P. Shastri (trans), Ramayana of Valmiki (3 vols), London, 1952-59
6. H.H. Wilson (trans.), Rigveda samhita (6 vols), Bangalore printing & publishing Co. Bangalore, 1946.
7. Jeet Ram Bhatt (ed.), Satapatha Brahmana (3 vols), EBL, Delhi, 2009.
8. A.S. Altekar, State and Government in Ancient India, Motilal Banarsidass, Delhi, 2001.
9. S.K. Belvalkar, Mahabharata: Santi Parvam, 1954.

10. D.R. Bhandarkar, Some aspects of ancient Indian Hindu polity, Banaras Hindu University.
11. J.R. Gharpure, Teaching of Dharmashastra, Lucknow University, 1956.
12. U.N. Ghosal, A history of Indian political ideas, Bombay, 1959.
13. K.P. Jayaswal, Hindu polity, Bangalore, 1967.
14. N.S. Law, aspect of ancient Indian polity, Calcutta, 1960.
15. S.R. Maheshwari, local government in India, Orient longman, New Delhi.
16. Beni Prasad, theory of government in ancient India, Allahabad, 1968.
17. B.A. Saletore, ancient Indian political thought and institutions, Bombay, 1963.
18. R.S. Sharma, aspects of political ideas and institutions in ancient India, Delhi, 1966.
19. K.N. Sinha, Sovereignty in ancient Indian polity, London, 1938.
20. V.P. Verma, studies in Hindu political thought and its metaphysical foundations, Delhi, 1954.
21. mn; ohj भास्त्री (अनुवा-½] dkfVY; h; vFk'kkL=] egj pln y{eunkl] fnYyh] 1968A
22. रामनारायण दत्त भास्त्री पाण्डेय (अनु-½ egkHkkj r ¼1&6 Hkkx½ fgnh vupkn l fgr] xhrki d] xkj [ki g] A
23. भातपथब्राह्मण (1-5 भाग) माध्यन्दिनीय भाखा, सायणाचार्य एवं हरस्वामी Vhdkl fgr] fnYyhA
24. cã"kdj मिश्र, भुक्रनीति हिंदी अनुवाद, चौखम्भा संस्कृत सीरीज, वाराणसी, 1968A
25. tkudhukFk भार्मा (संपा-½] Jhe}kYehfdjkek; .ke- ¼1&2 Hkkx½ fgnh vupkn l fgr] xhrki d] xkj [ki g] A
26. भा"ग तिवारी, संस्कृत साहित्य में राष्ट्रवाद एवं भारतीय राज"kkL=] fo | kfuf/k i d k"ku] fnYyh] 2013A
27. ts d"; i] nh?kfuudk; ¼1&2 Hkkx½] fcgkj A
28. mfeÿk #Lrxh ¼l Eik-½] euqefr ¼Hkkx 1&13½] ts ih ifcyf"ka gkml] fnYyhA
29. vtü d"; i pkcs ¼vuq½ ih-oh- dk.kj /ke'kkL= dk bfrgkl ¼Hkkx 1&4½] fgnh l fefr y[kuÅ] 1966A
30. jkeukjk; .k ; knoInq ¼vuq½] ts Mÿy xkuj] राज्यविज्ञान और भासन, आगरा, 1972A

31. प्रेमकुमारी दीक्षित, प्राचीन भारत में अन्तरराष्ट्रीय सम्बन्ध, उत्तर प्रदेश विश्वविद्यालय, काशी, 1977A
32. इन्द्रकिशोर मुखर्जी, कर्नाटक का इतिहास, भाग 1, कर्नाटक विश्वविद्यालय, मैसूर, 1977A
33. ए.के. गुप्त, तमिल इतिहास, भाग 1, ए.के. गुप्त, दिल्ली, 1989A
34. विद्यालंकार, प्राचीन भारतीय भाषास्य व्यवस्था एवं राजशासन, भाग 1, ए.के. गुप्त, दिल्ली, 1968A
35. फौजदार, भाग 1, ए.के. गुप्त, दिल्ली, 1989A

GE-II
Etical and Moral Issues in Sanskrit Literarure

[A] prescribed course: Total 48 Credits

Section 'A'	Issues in the Mahabharata	22 credits
Section 'B'	Issues in the Ramayana	08 credits
Section 'C'	Issues of personal conduct	10 credits
Section 'D'	Issues in freedom	08 credits

[B] Course objectives:

This course aims to get the students familiar with the Ethical and moral values in Sanskrit literature.

(C) Unit-wise division:

Section 'A'

Issues in the Mahabharata

Unit: I	Half-truths and falsehoods-Yudhisthira's Declaration of Asvathama's death.	6 Credits
Unit: II	Choosing the lesser evil-Dusyanata's rejection of Shakuntala in the Abhijnana Sakuntalam, act.V.	6 Credits
Unit: III	Critique of war in the Mahabharata (stri parva, Chapter 13-15). War-as it should be and as it is-(Manusmrti Chapter VII 199-200, 87-93 and Krishna's stratagems in war)	6 Credits
Unit: IV	Yearning for revenge- Asvatthama's revenge on pandava progeny; Duryodhana's revenge on Draupdi	4 Credits

Section 'B'

Issues in the Ramayana

Unit: I	Conflict of duty-Rama the king versus Rama the Husband.	4 Credits
Unit:II	Obedience and Loyalty-Laksmana's challenge to Dasharatha and submission to Rama in Valmiki's Ramayana.	4 credits

Section 'C'

Issues of Personal conduct

Unit: I	Self respect-Nitishatkam, Verses 21-30.	10 Credits
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Section 'D'

Issues in Freedom

Unit: I	Poetic freedom and poetic license-restraints on creative	4 Credits
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expression in Indian poetics and dramaturgy, assessment of popular Indian cinema in the light of these principles.

Unit: II The person-svadharna and sthitaprajna in the Gita: Chapter II. **4 Credits**

[D] Suggested books/readings:

1. Mahabharata with Hindi translation-Gita press Gorakhpur.
2. Matilal Bimla Krishna-Moral dilemmas in the Mahabharata.
3. Sharma Kavita A.-Ethical dilemmas in the Mahabharata
<http://www.drkavitasharma.org/pdf/ethical%20dilemmas%20in%20Mahabharat.pdf>.
4. Das Gurucharan-2009. The difficulty of being good, penguin (hindi translation)
5. <http://www.wisdomtimes.com/blog/lessons-from-the-Mahabharata-dealing-with-moral-dilemmas/#> .
6. <http://jaiarjun.blogspot.in/2011/07/epic-fictions-rashomon-like-world-of.html>.
7. <http://blogs.bu.edu/core/2011/02/16/on-arjunas-moral-dilemma/>
8. <http://www.cse.iitk.ac.in/users/amit/books/matilal-2002-ethics-epics-collected-v2.html>
9. Gita-with Hindi translation, Gita press, Gorakhpur.
10. Koshambi D.D., Nitishatakam, Bhartiya Vidya Bhawan, Mumbai, 1946.
11. Shashtir Surendara Dev, Abhijnana Sakuntalam, Sahitya Bhandar, Meerut.
12. Vasudev Soma Dev, (translation) Clay Sansrit series, New York University press.
13. Ramayana of Valmiki, Ayodhyakanda, Sanskritdocuments.org.

Skill Enhancement Courses

**Ability Enhancement Elective Course
(AEEC)
Skill Based Papers
BA (Prog.)**

Semester: III/IV/V/VI

AEEC-1 Basic Elements of Jyotisha	AEEC-2 Basic Elements of Ayurveda
AEEC-3 Yogasutra of Patanjali	AEEC-4 Ancient Indian Theatre

AEEC-1 (Skill Enhancement Courses)
Basic Elements of Jyotisha

[A] Prescribed course: Total 48 Credits

Section 'A' Origin, Development and Branches of Jyotisha	16 credits
Section 'B' Jyotishachandrika: Sanjna-Prakaranam	16 credits
Section 'C' Jyotisha Chandrika: Sanjna-Prakaranam	16 credits

[B] Course objectives:

The objective of this course is to introduce basic elements of the Jyotisha to the students. The course covers Origin, development and Branches of Jyotisha and reading of the Jyotishachandrika.

(C) Unit-wise division:

Section 'A'

Origin, Development and Branches of Jyotisha

Unit: I	Origin and development of Jyotisha General introduction to following branches of Astrology:	8 Credits
Unit: II	Siddhanta, Samhita, Hora, Tajika, Prasna, Vastushastra and Muhurtashastra	8 Credits

Section 'B'

Jyotisha Chandrika: Sanjna-Prakaranam

Unit: I	Jyotishachandrika-Sanjna-Prakaranam, Verses: 1-29)	8 Credits
Unit: II	Jyotishachandrika-Sanjna-Prakaranam, Verses: 30-65)	8 Credits

Section 'C'

Jyotisha Chandrika: Sanjna-Prakaranam

Unit: I	Jyotishachandrika-Sanjna-Prakaranam: verses: 66-90.	8 Credits
Unit: II	Jyotishachandrika-Sanjna-Prakaranam, Verses: 91-115.	8 Credits

[D] Suggested books/readings:

1. Rewati Raman Sharma, Jyotisha Chandrika.
2. Aehutanand Jha (trans.), Brihadsamhita, Chaukhamba Vidyabhavan Varanasi.
3. Shankar Balkrishna Dixit and Shiv Nath Jharkhandi (trans.), Bharatiya Jyotisha, Hindi Samiti, Uttar Pradesh, Lucknow.
4. Nemichandra Shastri, Bharatiya Jyotisha, Bharatiya Gyanpeeth, Varanasi.
5. M. Ramakrishna Bhat (trans.), Brhatsamhita, Motilal Banarasisdas, Vol-1&2, Delhi.
6. Devi Prasad Tripathi, Jyotisha Chandrika, Delhi.
7. Devi Prasad Tripathi, Jyotisha Chandrika, Delhi.

AEEC-2 (Skill Enhancement courses)

Basic Elements of Ayurveda

[A] Prescribed course: **Total 48 Credits**

Section 'A' Introduction of Ayurveda 18 credits

Section 'B' Carakasamhita - (Sutra-sthanam) 15 credits

Section 'C' Taitiriyopanisad 15 credits

[B] Course objectives:

Ayurveda is a traditional Indian system of healthcare that has been traced back as early as 5,000 BCE. Through the classroom lectures and discussions, this course will introduce students to the theory of Ayurveda. The theory modules sessions that make up this course offer an introduction to Ayurveda that is well rounded, comprehensive and useful for students in their own day-to-day living. The major objective is to understand the basic principles and concepts of preventative medicine and health maintenance, diet and nutrition, usage of commonly used spices and herbs and outline of Ayurvedic therapeutic procedures in Ayurveda.

(C) Unit-wise division:

Section 'A'

Introduction of Ayurveda

Unit: I Introduction of Ayurveda, History of Indian Medicine in the pre-caraka period, the two schools of Ayurveda: Dhanvantari and punrvasu. 09 Credits

Unit: II Main Acharyas of Ayurveda-Caraka, Susruta, Vagbhata, Madhava, Sarngadhara and Bhavamisra 09 Credits

Section 'B'

Carakasamhita-(Sutra-sthanam)

Unit: I Carakasamhita-(Sutra-sthanam): Division of time And condition of nature and body in six seasons. Regimen of fall winter (hemanta), winter (Sisira) and Spring (Vasanta) seasons. Regimen of summer (grisma), Rain (varsha) and Autumn (sharada) seasons 15 Credits

Section 'C'

Taitiriyopanisad

Unit: I Taitiriyopanisad- Bhrguvalli, anuvak 1-3 15 Credits

[D] Suggested books/readings:

1. Brahmananda Tripathi (Ed.), Carakasamhita, Chaukhamba Surbharati Prakashana, Varansi, 2005.
2. Taitiriyopanisad-Bhrguvalli.
3. Atridev Vidyalankar, Ayurveda Ka Brhad itihasa.
4. Priyavrat Sharma, Caraka Chintana.

5. V.Narayanaswami, Origin and development of Ayurveda (A brief history), ancient science of life, Vol. 1, No. 1, July 1981, pages 1-7.

6.

AEEC-3 (Skill Enhancement Courses)

Yogasutra of Patanjali

[A] Prescribed course:

Total 48 Credits

Section 'A' Yogasurta of patanjali: Samadhi pada **22 credits**

Section 'B' Yogasurta of patanjali: Sadhana pada **21 credits**

Section 'C' Yogasurta of patanjali: Vibhuti pada **05 credits**

[B] Course objectives:

This Yoga Darsana course aims to get the students to know about the world's most important texts and the vision of our ancient Yoga's tradition. For this, selected sutras of patanjali's Yogasurta has been prescribed.

(C) Unit-wise division:

Section 'A'

Yogasutra of Patanjali-Samadhi pada

Unit: I Yogasutra of Patanjali: Samadhi pada (Sutras: 1-15) 12 Credits

Unit: II Yogasutra of Patanjali: Samadhi pada (Sutras: 16-29) 10 Credits

Section 'B'

Yogasutra of Patanjali: Sadhana Pada

Unit: I Yogasutra of Patanjali: Sadhana pada (Sutra: 29-45) 11 Credits

Unit: II Yogasutra of Patanjali: Sadhana pada (Sutra: 46-55) 10Credits

Section 'C'

Yogasutra of Patanjali: Vibhuti Pada

Unit: I Yogasutra of Patanjali: Vibhuti Pada (Sutras: 1-3) 04Credits

[D] Suggested books/readings:

1. Patanjala Yogadarsana, Gita Press, Gorakhpur.

2. Yogapradipa, Gita press, Gorakhpur.

AEEC-4 (Skill Enhancement Courses)

Ancient Indian Theatre

[A] Prescribed course: **Total 48 Credits**

Section 'A' Tradition and History of Indian Theatre	10 credits
Section 'B' Theatre: Types and Constructions	8 credits
Section 'C' Acting: Angika, Vacika, Sattvika and Aharya	12 credits
Section 'D' Drama: Subject-plot (<i>vastu</i>), Hero (<i>neta</i>) and Sentiment (<i>rasa</i>)	18 credits

[B] Course objectives:

Objective of this course is to introduce principles and practices of Indian Theatre to students.

(C) Unit-wise division:

Section 'A'

Tradition and History of Indian Theatre

Unit: I	Origin and development of stage in different ages: Pre-historic, Vedic age.	05 Credits
Unit: II	Epic-puranic age, court theatre, temple theatre, open theatre, modern theatre, folk theatre, commercial theatre, national and state level theatre.	05 Credits

Section 'B'

Theatre: Types and Constructions

Unit: I	Theatre: Types and Constructions	08 Credits
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Section 'C'

Acting: Angika, Vacika, Sattvika and Aharya

Unit: I	Acting: Angika, Vacika	06 Credits
Unit: II	Sattvika and Aharya	06 Credits

Section 'D'

Drama: Subject-Matter (*vastu*), Actor (*neta*) and *rasa*

Unit: I	Vastu (Subject-Matter)	06 Credits
Unit: II	Neta (Hero)	06 Credits
Unit: III	Rasa (Sentiment)	06 Credits

[D] Suggested books/readings:

1. jk/kkoYyHk f=i kBh ¼l Ei k- , oa l id. ½] l f{klrukV; "ास्त्र हिंदी भाशानुवादसहित, ok.kh i idk"ku] fnYyh 2008A
2. राधावल्लभ त्रिपाठी, भारतीय नाट्यः स्वरूप एवं परम्परा, संस्कृत परिशद्, सागर e/; i n" k 1981A
3. g tkjh i l kn f } onh ¼l a k-½] ukV; "kkL= dh Hkkj rh; i j a j k , oa n" k: i d] jktdey i idk"ku] fnYyh] 1963A
4. सीताराम झा, नाटक और रंगमंच, बिहारी राष्ट्रभाशा परिशद्, पटना 1982A
5. बाबूलाल भुक्ल भास्त्री (सम्पा-½] ukV; "kkL= ¼1&4 Hkkx½] p kS[kEHkk l ðÑr l ðFku] okj.k.kl h] 1984A
6. jk/kkoYyHk f=i kBh] Hkkj rh; ukV; "kkL=] fo"odk" k ¼1&4 Hkkx½] i frHkk i idk"ku] fnYyh] 1999A
7. jk/kkoYyHk f=i kBh] Hkkj rh; ukV; "kkL= dh i j a j k vk] fo"o j æep] i frHkk i idk"ku] fnYyhA
8. cztekgu p r p h] ukV; "kkL=e-fo | kfuf/k i idk"ku] fnYyh] 2003A
9. d"kojke e q yxkødj] l ðÑr ehel k] i fjey i idk"ku] fnYyhA
10. f"ko"रण भार्मा, आचार्य भरत, मध्य प्रदे" k fgl nh x l Fk vdkneh] Hkks kyA
11. रामलखन भुक्ल, संस्कृत नाट्य कला, मोतीलाल cukj l nhnkl] ubl fnYyhA
12. xkfoln plnz jk;] ukV; "kkL= e a j æ" kkykvk ds : i] dk"kh] 1958A
13. Hkku d" k adj egrk] Hkkj rh; ukV; "kkL= rFkk vk/kfud i kl f xdrk] okj.k.kl hA
14. okpLi fr egrk] Hkkj rh; ukV; i j Ei j k , oa vfHku; ni l k] bykgkckn] 1967A
15. y{eh ukj k; . k yky] j æep vk] ukVd dh Hkfedk] fnYyh] 1965A
16. y{eh ukj k; . k xx] Hkkj r ds ykødukV;] gkFkj l l æhr dk; k y;] 1961A
17. l hrkjke p r p h] Hkkj rh; rFkk i k"pkR; j æep] fgl nh l fefr] y[kuÅ] 1964A
18. txnh"kp l nz ekFkj] i j Ei j k"गील नाट्य, बिहार राष्ट्रभाशा परिशद्, पटना, 1961 ।
19. C.B. Gupta, Indian Theatre, Varanasi, 1954.
20. R.K. Yajnick, Indian theatre, London, 1933.
21. Tarla Mehta, Sanskrit Play Production in Ancient India, MLBD, Delhi. 1999.
22. Allardyce Nicioll, the Theatre and Dramatic Theory, London, 1962

Department of Botany
Maharshi Dayanand University, Rohtak

(As per Choice Based Credit System in B.Sc. (Medical) Pass course with Botany

w. e. f. 2020-21)

Programme Specific Outcomes

Learning Objectives

- To develop a strong foundation in the fundamental concepts of Plant Biology.
- To prepare the students to conserve and manage the rich floristic wealth of India.
- To make students able to employ the scientific knowledge and methods for the benefit of both ecosystem and society.
- To make students competent for pursuing botanical studies both in the laboratory and field settings.

Learning Outcomes

- Students will have core knowledge of the biodiversity, anatomy, embryology, systematics, physiology and metabolism of plants, with particular emphasis on floristic diversity and ecosystem composition.
- Students will be able to demonstrate a working knowledge of the foundational concepts of Botany, including cellular, organismal and evolutionary biology.
- Students will be able to integrate floristic, ecological, physiological and biotechnological principles to better understand the functioning of biological systems.
- Students will be able to make observations and collect data in laboratory and in field courses and will analyze these results, derive conclusions and report their findings in the form of research papers, project reports and dissertations.
- Students will gain basic understanding of laboratory and field safety issues.

B.Sc. (Medical) Pass Course under Choice Based Credit System
Department of Botany
Proposed Scheme of Examination

SEMESTER	COURSE OPTED	COURSE NAME	Credits	Marks	Internal Assessment	Total Marks
I	Ability Enhancement Compulsory Course-I AECC-I	(English/ Hindi/ MIL Communication)/ Environmental Science	4	80	20	100
	Core Course I-Botany Paper I (Theory) DSC 1A	Biodiversity(Microbes ,Algae, Fungi and Archegoniates)	4	80	20	100
	Core Course I -Botany I (Practical) DSCP 1A	Biodiversity(Microbes ,Algae, Fungi and Archegoniates) Practical	2	50	--	50
	Core Course-II DSC 2A	DSC 2A	6 (4+2)			150
	Core Course-III DSC 3A	DSC 3A	6 (4+2)			150
II	Ability Enhancement Compulsory Course-II AECC-II	Environmental Science/ (English/ Hindi/ MIL Communication)/	4	80	20	100
	Core Course IV-Botany Paper II (Theory) DSC 1B	Plant Ecology and Taxonomy	4	80	20	100
	Core Course IV–Botany II (Practical) DSCP 1B	Plant Ecology and Taxonomy (Practical)	2	50	--	50
	Core Course-V DSC 2B	DSC 2B	6 (4+2)			150
	Core Course-VI DSC 3B	DSC 3B	6 (4+2)			150
III	Skill Enhancement Course -1 SEC-I	Biofertilizers or Mushroom Culture Technology	4	80	20	100
	Core Course VII-Botany Paper III (Theory) DSC 1C	Plant Anatomy and Embryology	4	80	20	100
	Core Course VII-Botany III (Practical) DSCP 1C	Plant Anatomy and Embryology (Practical)	2	50	--	50
	Core Course-VIII DSC 2C	DSC 2C	6 (4+2)			150

	Core Course-IX DSC 3C	DSC 3C	6 (4+2)			150
IV	Skill Enhancement Course-2 SEC-2	Nursery and Gardening or Floriculture	4	80	20	100
	Core Course X- Botany Paper IV (Theory) DSC 1D	Plant Physiology and Metabolism	4	80	20	100
	Core Course-Botany IV (Practical) DSCP 1D	Plant Physiology and Metabolism (Practical)	2	50	--	50
	Core Course-XI DSC 2D	DSC 2D	6 (4+2)			150
	Core Course-XII DSC 3D	DSC 3D	6 (4+2)			150
V	Skill Enhancement Course-3 SEC-3	Ethnobotany or Medicinal Botany	4	80	20	100
	Discipline Specific Elective 1-Botany Paper I (Theory) DSE 1A	Cell and Molecular Biology or Analytical Techniques in Plant Sciences	4	80	20	100
	Discipline Specific Elective 1-Botany I (Practical) DSEP 1A	Cell and Molecular Biology or Analytical Techniques in Plant Sciences (Practical)	2	50	--	50
	Discipline Specific Elective 2 DSE 2A	DSE-2A	6 (4+2)			150
	Discipline Specific Elective 3 DSE 3A	DSE-3A	6 (4+2)			150
VI	Skill Enhancement Course-4 SEC-4	Intellectual Property Rights or Plant Diversity and Human Welfare	4	80	20	100
	Discipline Specific Elective 4-Botany Paper II (Theory) DSE 1B	Economic Botany and Biotechnology or Plant Breeding and Genetics	4	80	20	100
	Discipline Specific Elective 4- Botany II (Practical) DSEP 1B	Economic Botany and Biotechnology or Plant Breeding and Genetics (Practical)	2	50	--	50

	Discipline Specific Elective 5 DSE-2B	DSE-2B	6 (4+2)			150
	Discipline Specific Elective 6 DSE-3B	DSE-3B	6 (4+2)			150

Abbreviations used-

- AECC- Ability Enhancement Compulsory Course
- DSC- Discipline Specific Course
- DSCP- Discipline Specific Course Practical
- SEC- Skill Enhancement Course
- DSE- Discipline Specific Elective
- DSEP- Discipline Specific Elective Practical

SEMESTER-I

B.Sc. Pass Course with BOTANY

Core Course I

BOTANY PAPER-I (Paper Code: DSC 1A)

Title of the Paper: Biodiversity (Microbes, Algae, Fungi and Archegoniates)

Learning objectives

- To understand the diversified habitats of microbes and plant groups (algae, fungi, bryophytes, pteridophytes and gymnosperms).
- To study the salient features of microbes, algae, fungi and archegoniates.
- To study the life cycle and economic importance of algae, fungi and archegoniates.
- To train the students for collection and preservation of microbes, algae, fungi and archegoniates.

Course outcomes

After completion of this course, the students must be able to acquaint themselves with the following concepts of Botany:

- CO 1.** The world of microbes, particularly the viruses and bacteria
- CO 2.** Identification, classification, reproduction and economic importance of various Algae and Fungi.
- CO 3.** General concepts regarding algal blooms, lichens and mycorrhiza
- CO 4.** Basic understanding of plant pathological principles along with few viral, bacterial and fungal diseases affecting the crop plants.
- CO 5.** Identification, classification, reproduction and economic importance of Bryophytes, Pteridophytes and Gymnosperms.
- CO 6.** Evolution of sporophytes, steles and seed-habit.
- CO 7.** Geological time scale for understanding the evolution of plants.
- CO 8.** The process of fossilization and some early fossil plants.

SEMESTER-I

B.Sc. Pass Course with BOTANY

Core Course I

BOTANY PAPER-I (Paper Code: DSC 1A)

Title of the Paper: Biodiversity (Microbes, Algae, Fungi and Archegoniates)

(Credits: Theory-4, Practicals-2)

THEORY

Exam Time: 3 Hrs

Lectures: 60

Max.Marks: 80

Note: Nine questions will be set covering the entire syllabus.

Attempt five questions in all, selecting one question from each unit.

Question No. 1 is compulsory (short answer type).

All questions carry equal marks.

Unit 1: Microbes and Algae

(15 Lectures)

Viruses: Discovery, general characteristics, replication (general account); DNA virus (T-phage); RNA virus (TMV); Bacteriophage: Lytic and lysogenic cycle; Economic importance of viruses.

Bacteria: Discovery, general characteristics, nutrition and cell structure; Reproduction – vegetative, asexual and recombination (conjugation, transformation and transduction); Economic importance of bacteria; **Cyanobacteria:** General characters, Life-history of *Nostoc*

Algae: General characteristics; Range of thallus organization and reproduction; Classification of algae upto classes (Smith, 1955); Morphology and life-cycles of *Volvox*, *Oedogonium*, *Vaucheria*, *Ectocarpus* and *Polysiphonia*; Economic importance; Algal blooms

Unit 2: Fungi and Plant Pathology

(15 Lectures)

Fungi: General characteristics; classification upto classes (Ainsworth, 1966); Economic importance; Morphology and life-cycles of *Rhizopus*, *Penicillium*, *Puccinia* and *Agaricus*

Lichens: Classification, morphology, internal structure, reproduction and economic importance; **Mycorrhiza:** Ectomycorrhiza and endomycorrhiza and their significance

Plant Pathology: Causal organism, general symptoms, disease cycle and control of the following diseases: **Viral diseases** - Tobacco mosaic, Yellow vein mosaic of bhindi; **Bacterial diseases** - Citrus canker; **Fungal diseases** - Late blight of potato, White rust of crucifers, Red rot of sugarcane

Unit 3: Bryophytes and Pteridophytes

(15 Lectures)

Bryophytes: General characteristics, range of habitat and thallus organization; Classification up to classes (Smith, 1955); Morphology, anatomy and reproduction of *Marchantia*, *Anthoceros* and *Funaria* (Developmental details not to be included); Evolution of sporophytes; Economic importance of bryophytes

Pteridophytes: General characteristics; Classification up to classes (Smith, 1955); Morphology, anatomy and reproduction of *Selaginella*, *Equisetum* and *Pteris* (Developmental details not to be included); Heterospory and seed habit; Stele-system; Economic importance of pteridophytes

Unit 4: Paleobotany and Gymnosperms

(15 Lectures)

Paleobotany: Fossils and Fossilization (Process involved, types of fossils and importance of fossils), geological time scale. Study of early land plants: *Rhynia* and *Lyginopteris*. Origin and evolution of gymnosperms

Gymnosperms: General characteristics; Classification up to classes (Pilger and Melchior, 1954); Morphology, anatomy and reproduction of *Cycas*, *Pinus* and *Ephedra* (Developmental details not to be included); Economic importance of gymnosperms

Core Course I
BOTANY PRACTICAL-I (Paper Code: DSCP 1A)
Title of the Paper: Biodiversity (Microbes, Algae, Fungi and Archegoniates)
Practicals (6 Practical per Week for each Group)

Note:

1. Students should draw Figures or diagrams and write related descriptions/ notes in their practical note books.
2. Report on excursion tours with photographs, collection, preservation and preparation of herbarium sheets and/ or specimens related to Algae, Fungi, and Archegoniates.

List of Practical

1. Electron Micrographs/Models of viruses – T-Phage and TMV, Photograph/ Line drawing of lytic and lysogenic Cycle. Types of bacteria from permanent slides/photographs.
2. Study of vegetative and reproductive structures of *Nostoc*, *Volvox*, *Oedogonium*, *Vaucheria*, *Ectocarpus* and *Polysiphonia* through temporary preparations and permanent slides.
3. Gram Staining and serial dilution technique of bacteria.
4. ***Rhizopus*, *Penicillium*, *Puccinia* and *Agaricus***: Asexual and sexual stage (temporary mounts/ permanent slides).
5. Study of plant disease specimens as per theory syllabus.
6. **Lichens**: Study of growth forms of lichens (crustose, foliose and fruticose).
7. ***Marchantia***- morphology of thallus, WM rhizoids and scales, VS thallus with gemma cup, WM gemmae, VS of antheridiophore and archegoniophore, LS sporophyte (temporary/ permanent slides).
8. ***Anthoceros***- morphology of thallus, WM rhizoids, VS thallus, VS Antheridia and Archegonia, LS sporophyte (temporary/ permanent slides).
9. ***Funaria***- morphology, WM leaf, rhizoids, operculum, peristome, annulus, spores, slides showing antheridial and archegonial heads, LS capsule (temporary/ permanent slides).
10. ***Selaginella***- morphology, WM leaf with ligule, TS stem, WM strobilus, WM microsporophyll and megasporophyll, LS strobilus (temporary/ permanent slide).

11. *Equisetum*- morphology, TS internode, LS strobilus, TS strobilus, WM sporangiophore, WM spores (wet and dry) (temporary slides); TS rhizome (permanent slide).
12. *Pteris*- morphology, TS rachis, VS sporophyll, WM sporangium, WM spores, TS rhizome, WM prothallus with sex organs and young sporophyte (temporary/ permanent slide).
13. *Cycas*- morphology (coralloid roots, bulbil, leaf), TS coralloid root, TS rachis, VS leaflet, VS microsporophyll, WM spores, LS ovule, TS root (temporary/ permanent slide). LS Seed.
14. *Pinus*- morphology (long and dwarf shoots, WM dwarf shoot, male and female), WM dwarf shoot, TS needle, TS stem, LS/TS male cone, WM microsporophyll, WM microspores (temporary slides), LS female cone (temporary/ permanent slide). LS Seed.
15. *Ephedra* – morphology of stem, TS root, TS stem, LS/TS male strobilus, LS microsporangium, LS female strobilus, LS Seed.

Core Course I
BOTANY PRACTICAL-I (Paper Code: DSCP 1A)
Title of the Paper: Biodiversity (Microbes, Algae, Fungi and Archegoniates)

Max. Marks: 50

Time: 3 Hours

1. Identify, classify and write short morphological notes giving well labelled relevant diagrams on the given specimens A, B, C, D and E (one each from algae, fungi/ lichen, bryophytes, pteridophytes and gymnosperms). (15)
2. Identify giving two important characters of identification of the given spots 1, 2, 3, 4 & 5 (one slide/ material from algae, fungi/ lichen, bryophytes, pteridophytes and gymnosperms). (10)
3. Cut the section of given material from pteridophytes/ gymnosperms and prepare a double stained permanent mount. Identify giving reasons and show it to the examiner. (10)
4. Identification of plant pathological specimen: Name of disease, causal organism and symptoms. (3)
5. Field visit and collection records (4)
6. Practical records (4)
7. Viva-voce (4)

Suggested Readings

1. Smith, G.M. 1971. Cryptogamic Botany. Vol.I. Algae & Fungi. Tata McGraw Hill Publishing Co., New Delhi.
2. Sharma, P.D. 1991. The Fungi. Rastogi & Co., Meerut.
3. Dube, H.C. 1990. An Introduction to Fungi, Vikas Publishing House Pvt.Ltd., Delhi.
4. Clifton, A. 1958. Introduction to the Bacteria: McGraw Hill & Co., New York.
5. Alexopoulos, C.J., Mims, C.W., Blackwell, M. (1996). Introductory Mycology, John Wiley and Sons (Asia), Singapore. 4th edition. rd
6. Plant Pathology. 3 Ed. 2017. R.S. Mehrotra and Ashok Aggarwal. McGraw Hill Education India Pvt Ltd. New Delhi.
7. Fundamentals of Plant Pathology .2013. R.S. Mehrotra and Ashok Aggarwal. McGraw Hill Education India Pvt Ltd. New Delhi.
8. Bhatnagar, S.P. and Moitra, A. (1996). Gymnosperms. New Age International (P) Ltd Publishers, New Delhi, India.
9. Kumar, H.D. (1999). Introductory Phycology. Affiliated East-West. Press Pvt. Ltd. Delhi. 2nd edition.
10. Parihar, N.S. (1991). An introduction to Embryophyta. Vol. I. Bryophyta. Central Book Depot, Allahabad.
11. Raven, P.H., Johnson, G.B., Losos, J.B., Singer, S.R., (2005). Biology. Tata McGraw Hill, Delhi, India.
12. Sethi, I.K. and Walia, S.K. (2011). Text book of Fungi & Their Allies, MacMillan Publishers Pvt. Ltd., Delhi.
13. Thakur, A.K. and Bassi, S.K. (2008). Diversity of Microbes and Cryptogams. S. Chand & Co., Delhi.
14. Tortora, G.J., Funke, B.R., Case, C.L. (2010). Microbiology: An Introduction, Pearson Benjamin Cummings, U.S.A. 10th edition.
15. Willey, J.M., Sherwood, L., Woolverton, C.J, Prescott, L.M. and Willey, J.M. (2011). Prescott's Microbiology. New York, McGraw-Hill.
16. Vashishta, P.C., Sinha, A.K., Kumar, A., (2010). Pteridophyta, S. Chand. Delhi, India

SEMESTER-II

B.Sc. Pass Course with BOTANY

Core Course IV

BOTANY PAPER-II (Paper Code: DSC 1B)

Title of the Paper: Plant Ecology and Taxonomy

Learning objectives

- To understand the basic concept of ecology, ecological factors and ecological adaptations of xerophytes and hydrophytes.
- To study the salient features of population and community ecology.
- To study structure of ecosystem, energy flow, food chain, food webs and biogeochemical cycles.
- To understand the principles of taxonomy and nomenclature.
- To study natural, artificial and phylogenetic system of classification of angiosperms.
- To study salient features and economic importance of common angiospermic families.

Learning outcomes

CO 1. Basic concepts of ecology, ecological factors and ecological adaptations of plants.

CO 2. Ecology of population, community, ecosystem as well as biosphere.

CO 3. Importance of nutrient recycling, biodiversity, sustainable development and ecosystem services.

CO4. Significance of phytogeography ,global warming, ozone layer depletion, biomagnification and phytoremediation.

CO 5. Principles governing the identification and classification of plants.

CO 6. An understanding of plant taxonomic literature along with modern trends in taxonomy.

CO 7. Identification of most dominant class of plants with the help of characteristic floral features.

CO 8. Economic importance of plants around us.

SEMESTER-II

B.Sc. Pass Course with BOTANY

Core Course IV

BOTANY PAPER-II (Paper Code: DSC 1B)

Title of the Paper: Plant Ecology and Taxonomy

(Credits: Theory-4, Practicals-2)

THEORY

Exam Time: 3 Hrs

Lectures: 60

Max. Marks: 80

Note: Nine questions will be set covering the entire syllabus.

Attempt five questions in all, selecting one question from each unit.

Question No. 1 is compulsory (short answer type).

All questions carry equal marks.

Unit 1: Ecological factors, Population & Community Ecology (15 Lectures)

Introduction to Ecology: Basic concepts, types and scope. Environmental factors – Edaphic (soil profile, physico-chemical properties), Climatic (water, wind, light and temperature), topographic and biotic factors (species interactions). Morphological and anatomical adaptations of hydrophytes, xerophytes and halophytes.

Population Ecology: Basic concept; characteristics; biotic potential, growth curves.

Community Ecology: Qualitative and quantitative characters of communities; Ecotone and edge effect; Ecological Succession: Process and types (Hydrosere and Xerosere).

Unit 2: Ecosystem, Phytogeography & Environmental pollution (15 Lectures)

Ecosystem: Structure (components) and functions (trophic levels, food chains, food webs, ecological pyramids and energy flow); Concept of biosphere; Biogeochemical cycles: Hydrological, Carbon, Nitrogen. Biodiversity and its conservation; Protected Area Network; Convention on Biological Diversity; Concept of Sustainable Development; Ecosystem services

Phyto-geography: Phyto-geographical regions of India; Afforestation, Deforestation and Social forestry; Endangered plants, endemism, IUCN categories, Red Data Books

A basic knowledge of Environmental Protection Act, 1986. Global change: Greenhouse effect and greenhouse gases; impacts of global warming; carbon trading; Ozone layer depletion; Biomagnification; Phytoremediation

Unit 3: Plant Taxonomy

(15 Lectures)

Identification, Classification, Nomenclature. Ranks, categories and taxonomic groups. Principles and rules (IUCN); ranks and names; binominal system, typification, author citation, valid publication, rejection of names, principle of priority and its limitations. Types of classification- artificial, natural and phylogenetic; Bentham and Hooker system of classification (upto series); Engler and Prantl system of classification (upto sub-classes). General introduction and importance of Botanical Gardens and Herbarium.

Introduction to Floras, monographs and journals; Keys (single access and multi-access)
Taxonomic evidences from cytology, phytochemistry and molecular data

Unit 4: Angiospermic Families

(Lectures-15)

Floral terms and types of inflorescence; Salient features, vegetative, floral characters and economic importance of the following families: Ranunculaceae, Brassicaceae, Malvaceae, Rutaceae, Fabaceae (Sub-families – Papilionaceae, Caesalpiniaceae, Mimosaceae), Cucurbitaceae, Apiaceae, Asteraceae; Asclepiadaceae, Solanaceae, Lamiaceae, Euphorbiaceae, Liliaceae, Poaceae

Core Course IV
BOTANY PRACTICAL-II (Paper Code: DSCP 1B)
Title of the Paper: Plant Ecology and Taxonomy
Practicals (6 Practicals per Week for each Group)

Note:

1. Students should draw Figures or diagrams and write related descriptions/ notes in their practical note books.
2. Report on field visit with photographs, collection, preservation and preparation of wild plants on herbarium sheets and proper herbarium labels.

List of Practicals

1. Study of instruments used to measure microclimatic variables: Soil thermometer, maximum and minimum thermometer, anemometer, psychrometer/ hygrometer, rain gauge and lux meter.
2. Determination of pH, and analysis of two soil samples for carbonates, chlorides, nitrates, sulphates and organic matter by rapid field test.
3. Study of morphological adaptations of hydrophytes and xerophytes (four each).
4. Study of biotic interactions of the following: Stem parasite (*Cuscuta*), Root parasite (*Orobanchae, Striga*), Epiphytes, Insectivorous plants
5. Determination of minimal quadrat size for the study of herbaceous vegetation in the college campus by species area curve method. (species to be listed)
6. Quantitative analysis of herbaceous vegetation in the college campus for frequency and comparison with Raunkiaer's frequency distribution law
7. Morphological and anatomical features of hydrophytes and xerophytes in relation to their habitats.
8. Visit and Preparation of Report on polluting Industry/ polluting site and different Ecosystems.
9. Study of floral characters of the following families (Description, VS flower, TS of Ovary, floral diagrams, floral formulae and systematic position according to Bentham & Hooker's system of classification):

Ranunculaceae -*Ranunculus/Delphinium*; **Brassicaceae** – *Brassica/Alyssum/Iberis*;
Malvaceae – *Hibiscus/Abelmoschus*; **Fabaceae**- *Pisum (Papilionaceae), Cassia*
(*Caesalpiniaceae*), *Acacia (Mimosaceae)*; **Cucurbitaceae** –
Cucurbita/Cucumis; **Apiaceae**- *Coriandrum/Foeniculum/Cuminum*;
Asteraceae *Sonchus/Helianthus/Ageratum/Eclipta/Tridax*; **Asclepiadaaceae** –
Calotropis; **Solanaceae** – *Solanum nigrum/Datura/Petunia*; **Lamiaceae** –
Salvia/Ocimum; **Euphorbiaceae** – *Euphorbia/Ricinus* ; **Liliaceae** -
Asphodelus/Lilium/Allium; **Poaceae** - *Wheat*.

Any other available plant species, **at least one per family**, belonging to these families can also be studied.

Core Course IV
BOTANY PRACTICAL-II (Paper Code: DSCP 1B)
Title of the Paper: Plant Ecology and Taxonomy

Max. Marks: 50

Time allotted: 3 Hours

1. Describe/compare the given flowers A and B in semi-technical language giving V.S. of flowers, T.S. of ovaries, floral diagrams and floral formulae. Identify and assign them to their respective families giving reasons. (14)
2. Types of inflorescence (5)
3. Study of physical characteristics of soil and water. (5)
4. Estimation of frequency and abundance of herbaceous vegetation by quadrat method. (5)
5. Identify and write short morphological note on the given plant specimens C, D and E from hydrophytes and xerophytes/ halophytes/ parasitic plants. (9)
6. Field visit and collection records (4)
7. Practical records (4)
8. Viva-voce (4)

Suggested Readings

1. Kormondy, E.J. (1996). Concepts of Ecology. Prentice Hall, U.S.A. 4th edition.
- Odum, E.P. 1983: Basic Ecology, Saunders, Philadelphia.
- Mackenzie, A. et al. 1999: Instant Notes in Ecology, Viva Books Pvt. Ltd., New Delhi.
4. Sharma, P.D., 2010 Ecology and Environment. Rastogi Publications, Meerut, India. 8th edition.
5. Simpson, M.G. (2006). *Plant Systematics*. Elsevier Academic Press, San Diego, CA, U.S.A.
6. Singh, G. (2012). *Plant Systematics: Theory and Practice*. Oxford & IBH Pvt. Ltd., New Delhi. 3rd edition.

DEPARTMENT OF ZOOLOGY
B.Sc. Zoology pass course programme
(As per Choice based Credit System w.e.f. the academic year 2020-21)

Program objectives

- PO1:** To understand the subject of Zoology in the evolving biological paradigm in modern times.
- PO2:** To appreciate the integrated chemical, physical, mathematical and molecular entities to the inner working of different organisms.
- PO3:** To understand a student the socio-economic impact, through applied aspects of Zoology.
- PO4:** To study in an integrated and cross-disciplinary manner with a comprehensive understanding of all living systems and their relationship with the eco-system,.
- PO5:** To imbibe values for moral and ethical awareness for self- directed and lifelong learning attitude.
- PO6:** To let students identify the major groups of organisms present on earth.
- PO7:** To know the cardinal features of classification of animal kingdom on the basis of morphology and molecular information wherever available.
- PO8:** To acquaint principle of comparative biology for understanding comparative anatomy, physiology and other functions for all in the hierarchy of animal evolution.
- PO9:** To gain comprehensive knowledge about different animal species in one go, appreciating the differences and similarities.
- PO10:** To achieve proficiency in handling experiments for research purposes.

Program Specific Outcomes

- PSO1:** Students will develop theoretical and practical knowledge in basic and applied areas of Zoology.
- PSO2:** Students will be trained for the academic and research fields of Zoology.
- PSO3:** Students will be acquainted with research and assessment techniques in animal science.
- PSO4:** Students will gain competencies and professional skills for working in the related areas of animal science.
- PSO5:** Students will be familiar with the modern day technologies used in animal science.
- PSO6:** Students will know the concepts, mechanisms, biological designs & functions and evolutionary significance across organisms.
- PSO7:** Students will apply their knowledge in future course of their career development in higher education and research.

PSO8: Students will develop a comprehensive knowledge of structure-function relationship at the level of gene, genome, cell, tissue, organ, and system.

PSO9: Students will understand the behaviour, population dynamics, physiology of organisms and the way they interact with other species and their environments.

PSO10: Students will use knowledge, understanding and skills required for identifying problems and issues relating to Zoology.

B.Sc. Pass Course under Choice Based Credit System
Department of Zoology

Proposed Scheme of Examination

SEMESTER	COURSE OPTED	COURSE NAME	Credits	Marks	Internal Assessment	Total Marks
I	Ability Enhancement Compulsory Course-1	(English/Hindi/ MIL Communication)/ Environmental Science	4	80	20	100
	Core Course-I (Theory) DSC 1A	Sytematics and Diversity of Life- Protists to chordates	4	80	20	100
	Core Course-I (Practical) DSC 1A	Sytematics and Diversity of Life- Protists to chordates	2	50	-	50
	Core Course-II DSC 2A	DSC 2A	(4+2)			150
	Core Course-III DSC 3A	DSC 3A	(4+2)			150
II	Ability Enhancement Compulsory Course-II	Environmental Science/ (English/Hindi/ MIL Communication)	4	80	20	100
	Core course-IV (Theory) DSC 1B	Comparative Anatomy and physiology of non-chordates	4	80	20	100
	Core Course-IV (Practical) DSC 1B	Comparative Anatomy and physiology of non-chordates	2	50	-	50
	Core Course-V DSC 2B	DSC 2B	(4+2)			150
	Core Course-VI DSC 3B	DSC 3B	(4+2)			150
III	Skill Enhancement Course –1 SEC-1	Public Health and Hygienic	4	80	20	100
	Core course-VII (Theory) DSC 1C	Comparative Anatomy and physiology of chordates	4	80	20	100
	Core course-VII (Practical) DSC 1C	Comparative Anatomy and physiology of chordates	2	50	-	50
	Core Course-VIII DSC 2C	DSC 2C	(4+2)			150
	Core Course-IX DSC 3C	DSC 3C	(4+2)			150
IV	Skill Enhancement Course-2 SEC-2	Biofertilizers	4	80	20	100
	Core Course-X (Theory) DSC 1D	Cell Biology and Histology	4	80	20	100
	Core Course-X (Practical)	Cell Biology and Histology	2	50	-	50

	DSC 1D					
	Core Course-XI DSC 2D	DSC 2D	(4+2)			150
	Core Course-XII DSC 3D	DSC 3D	(4+2)			150
V	Skill Enhancement Course-3 SEC-3	Dairy production and technology	4	80	20	100
	Discipline Specific Elective -1 (Theory) DSE-1A	Evolutionary Biology/Agrochemicals and Pest management/Wildlife conservation and management	4	80	20	100
	Discipline Specific Elective -1 (Practical) DSE-1A	(Lab.) Zoology	2	50	-	50
	Discipline Specific Elective -2 DSE-2A	DSE-2A	(4+2)			150
	Discipline Specific Elective -3 DSE-3A	DSE-3A	(4+2)			150
VI	Skill Enhancement Course-4 SEC-4	Beekeeping	4	80	20	100
	Discipline Specific Elective – 4 (Theory) DSE-1B	Mammalian Physiology/ Endocrinology / Fisheries	4	80	20	100
	Discipline Specific Elective – 4 (Practical) DSE-1B	DSE-4 (Lab.) Zoology	2	50	-	50
	Discipline Specific Elective - 5 DSE-2B	DSE-2B	(4+2)			150
	Discipline Specific Elective - 6 DSE-3B	DSE-3B	(4+2)			150

A. CORE COURSES

1. Systematics and Diversity of Life- Protists to chordates
2. Comparative Anatomy And Physiology of Non-Chordates
3. Comparative Anatomy and physiology of chordates
4. Cell Biology And Histology

B. DISCIPLINE SPECIFIC ELECTIVE COURSES

a) Discipline Specific Electives-1 (Fifth Semester) (Select any one of the three options)

1. Evolutionary Biology
2. Agrochemicals and Pest management
3. Wildlife conservation and management

b) Discipline Specific Electives-1 (Fifth Semester) (Select any one of the three options)

1. Mammalian Physiology
2. Endocrinology
3. Fisheries

C. SKILL ENHANCEMENT COURSES

1. Public Health and Hygienic
2. Biofertilizers
3. Dairy production and technology
4. Beekeeping

SEMESTER-I CORE COURSE I (CC-I) Zoology Paper I

Systematics and Diversity of Life- Protists to Chordates THEORY

Max Marks: 80+20 (Internal assessment)
allotted: 3 Hours

Time

Note: Nine questions are to be set in all and the candidates are required to attempt five questions including compulsory question.

- Question number I is compulsory consisting of 8 parts (2.0 mark each) covering the entire syllabus. Answer to each part should not exceed 20 words.
- Out of remaining eight questions, two questions are to be set from each unit (I to IV), possibly splitting them in parts. Candidate is required to attempt four questions, selecting one question from each unit.

Course objectives

1. The course is a walk for the Bachelor's entrant through the amazing diversity of living forms from simple to complex one.
2. It enlightens how each group of organisms arose and how did they establish themselves in the environment with their special characteristics.

3. It also deals with the differences and similarities between organisms on the basis of their morphology and anatomy.
4. It also deals with the grouping of animals into taxa and clades.

Learning outcomes

After successfully completing this course, the students will be able to:

1. Develop critical understanding how animals changed from a primitive cell to a collection of simple cells to form a complex body plan.
2. Examine the diversity and evolutionary history of a taxon through the construction of a basic phylogenetic/ cladistics tree.
3. Understand how morphological change due to change in environment helps drive evolution over a long period of time.
4. The project assignment will also give them a flavour of research to find the process involved in studying biodiversity and taxonomy besides improving their writing skills species chosen

UNIT I: Origin of Life on Earth

13 Lectures

Origin of life on Earth: Arrival of simple form from primordial chemicals. Multicellularity: from simple collections of poorly differentiated cells to complex body plans. Biological diversity. Systematics and taxonomy. Species concept, clades. Nomenclature and utility of scientific names. Classification: morphological and evolutionary (molecular). Relationship of taxa: phylogenetics and cladistics with special reference to paraphyly, monophyly, apomorphy, plesiomorphy and phenoplasticity

UNIT II: Protists and acoelomate Metazoa

13 Lectures

Structure and diversity in Protists. Origin of Metazoans: Diploblastic and triploblastic organization; symmetries; body cavities; protostomes and deuterostomes. Special features and structural diversity in sponges. Cnidarians: Special features; transition of third germ layer; polymorphism and division of labour; coral reef forming Cnidarians. The Bilateria: Basic characteristics. The acoelomates: Basic organization and adaptive radiations in flatworms.

UNIT III: Pseudocoelomate and coelomate Non chordates

13 Lectures

The Ecdysozoa: characteristics of the representative taxa. Pseudo coelomates; Basic organization and adaptive radiations in roundworms. The coelomates: Basic organization and adaptive radiations in Arthropods- Ancestors/ fossil arthropods. Adaptive radiations in Crustaceans, Myriapods, Chelicerates, Insects, etc. Basic organization and diversity in

Annelids. Basic organization and diversity in Molluscs. Disruption of bilateral symmetry and its significance. Basic organization of Echinoderms; their affinity to Chordates.

UNIT IV: Protochordates and Chordates

13 Lectures

Chordates – Primitive Chordates and their affinities. Hemichordates, Urochordates and Cephalochordates. Advent of vertebrates: Cyclostomes, their evolutionary status and affinities. Basic organization and diversity of fishes, their evolutionary transitions. From Water to Land invasion - Early Tetrapodes. Amphibians diversity and adaptability to dual mode of life. Amniotes: the amniotic egg, adaptive radiations in reptiles; the avian ancestors. Birds: Adaptation from terrestrial to aerial mode of life.

Origin of Mammals- Special features of Monotremes and Marsupials. Characteristics of other mammalian groups with special reference to primates.

Recommended readings

- Barnes, R. S. K.; Calow, P.; Olive, P. J. W.; Golding, D. W.; Spicer, J. I. (2002) *The Invertebrates: a Synthesis*, Blackwell Publishing.
- Hickman, C.; Roberts, L.S.; Keen, S.L.; Larson, A. and Eisenhour, D. (2018) *Animal Diversity*, McGraw-Hill.
- Holland, P. (2011) *The Animal Kingdom: A Very Short Introduction*, Oxford University Press.
- Kardong, K.V. (2006) *Vertebrates: Comparative Anatomy, Function, Evolution* (4th edition), McGraw- Hill.
- Barrington, E.J.W. (1979) *Invertebrate Structure and Functions*. II Edition. E.L.B.S. and Nelson.
- Boradale, L.A. and Potts, E.A. (1961) *Invertebrates: A Manual for the use of Students*. Asia Publishing Home.
- Bushbaum, R. (1964) *Animals without Backbones*. University of Chicago Press.

SEMESTER-I
Core Course - Paper
Practical

Max. Marks:50

Time allowed: 4Hrs

Systematics and Diversity of Life- Protists to Chordates

1. Study of animals through slides and museum specimens in the laboratory with details on their classification, biogeography and diagnostic features (record book).
2. Study of animals in nature during a survey of a National Park or Forest area.
3. Collection of five species (preferably invertebrates, insects) belonging to a clade. A project work on their generic identification, description and illustration with a note on their locality. Also the assessment of their relationship by constructing a cladogram using characters and character states.
4. Comparison of two species of birds belonging to same genus (Interspecific difference).
5. Comparison and weighting of characters of two birds belonging to same family but dissimilar genera.

Group discussion or Seminar presentation on one or two related topics from the list

SEMESTER-II
CORE COURSE (CC-II)
Zoology Paper II
Comparative Anatomy and Physiology of Non-chordates
THEORY

Max Marks: 80+20 (Internal assessment)
allotted: 3 Hours

Time

Note: Nine questions are to be set in all and the candidates are required to attempt five questions including compulsory question.

- Question number I is compulsory consisting of 8 parts (2.0 mark each) covering the entire syllabus. Answer to each part should not exceed 20 words.
- Out of remaining eight questions, two questions are to be set from each unit (I to IV), possibly splitting them in parts. Candidate is required to attempt four questions, selecting one question from each unit.

Course objectives

1. The course makes a detailed comparison of the anatomy of the different taxa of non chordates.
2. It also highlights how in the taxonomic hierarchy, there is an increase in the complexity of

structure and function.

3. The course thus gives an overview of the intricate life processes and adaptive radiations in non chordates.
4. Develop an understanding of the characters used to classify besides being able to differentiate the organisms belonging to different taxa.

Learning outcomes

After successfully completing this course, the students will be able to

1. Develop an understanding of the characters used to classify besides being able to differentiate the organisms belonging to different taxa.
2. Understand the relative position of individual organs and associated structures through dissection of the invertebrate representatives.
3. Realize that very similar physiological mechanisms are used in very diverse organisms.
4. Get a flavor of research by working on project besides improving their writing skills. It will further enable the students to think and interpret individually.

UNIT I: Tegument and Digestive system

13 Lectures

Basic affinities and differences between prokaryotes and eukaryotes; protists and the non-chordate animals. Symmetry, Coelom development and diversity. Cell membrane in protists and its derivatives. Tegument in non-chordates and its derivatives. Nutrition and feeding modes in protists. Digestive system & feeding mechanism in non-chordates): Process of digestion from food vacuoles to complex digestive organs.

UNIT II: Locomotory, Respiratory, Circulatory and Excretory systems

13 Lectures

Locomotion and diversity of locomotory organs in protists and non-chordates, muscle and locomotion, Structure and diversity of skeletal elements in protists and non-chordates. Respiration: diversity of respiratory organs, modes of respiration. Respiratory pigments and oxygen consumption rates of different organisms. Circulation and the diversity of circulatory system. Excretion (protists): endocytosis, exocytosis; Excretion and diversity of excretory organs in non chordates.

UNIT III: Nervous and Reproductive systems **13 Lectures**

Nervous system with special reference to diversity in brain and nerve chord. Neuroendocrine systems, pheromones. Sense organs: Mechanoreceptors and their diversity in different taxa. Sense organs: photoreceptors, chemoreceptors, thigmoreceptors, rheoreceptors and proprioceptors in different taxa. olfaction and sound perception in insects, etc.

Diversity of the reproductive organs and accessory sex organs; modes of reproduction- asexual and sexual reproduction. Metamorphosis. Diversity of larval forms in non-chordates

UNIT IV: Evolution and characteristics of important Non Chordate taxa

1

3 Lectures Organization and affinities in fossils (such as trilobites). Affinities of living fossils, *Limulus* and *Peripatus*. Polymorphism and colony formation. Parasitic adaptations and life cycle patterns in parasites belonging to different taxa. The parasites listed by World Health Organization under preventive programmes. Structure and diversity of the pest organisms. Invertebrate model organisms and their importance. Taxa with special characteristics: Types of canal systems in sponges and their significance. Torsion and detorsion in Mollusca. Components of water vascular system in echinoderms.

Recommended readings

1. Barrington, E J W. (1967) Invertebrate structure and function, Nelson, London.
2. Barnes, R. D. (1968) Invertebrate Zoology, 2nd Ed. Saunders, Philadelphia.
3. Hyman, L H. (1940-67). The Invertebrates, Vol. I-VI. McGraw-Hill, New York.
4. Barnes, R.S.K., Calow, P., Olive, P.J.W., Golding, D.W. and Spicer, J.I. (2002) The Invertebrates: A New Synthesis. III Edition. Blackwell Science.
5. Boradale, L.A. and Potts, E.A. (1961) Invertebrates: A Manual for the use of Students. Asia Publishing Home.
6. Marshall, A.J and Williams, W.D. (1995) Text book of Zoology- Invertebrates. VII Ed., Vol. I, A.L.T.B.S. Publishers.
7. <http://abacus.bates.edu/acad/depts/biobook/AnimPhyl.pdf>

SEMESTER-II

Zoology Paper

Practical

Max. Marks:50

Time allowed: 4Hrs

Comparative Anatomy and Physiology of Non-chordates

1. Study of models, permanent slides and museum specimens representing different protists and non-chordate taxa.
2. Some additional slides/specimens of Protozoans of agricultural importance. Coral-reef forming Cnidarians

Plant parasitic nematodes

Nematodes used as models in experimental biological research

3. Dissection of *Pheretima* to expose circumpharyngeal ganglia
4. Dissection of *Periplaneta* to expose the digestive system and salivary glands
5. Dissection of *Palaemon* to expose appendages and statocyst
6. Dissection of *Pila*
7. Study of larval forms: Ephyra, Planula, Trochophore, Pluteus, Velliger, **Zoea**, Metazoea, Bipinnaria
8. Some videos to develop understanding on the animals of different taxa
9. Group discussion or Seminar presentation on one or two related topics from the list

B.A NATIONAL SERVICE SCHEME PASS COURSES

Choice Based Credit System (W.E.F. Session 2020-21)

Semester –I

Paper: Introduction and Basic Concepts of NSS (01)

Time: 3-Hrs

Max. Marks: 150

Theory Paper	:	100
Internal assessment	:	20
Project Work	:	30

Unit -01:

- History philosophy & Definition of NSS
- NSS, Aims & Objectives of NSS
- Emblem, Flag, Motto, Song, Badge, NSS day etc.
- Organizational structure (from national to regional level)
- Roles and responsibilities of various NSS functionaries

Unit -02: NSS Programmes and Activities

- Concept of regular activities(One Day Camp), special seven camping, Day & Night Camps and relevance of Celebration of Important Days recognized by United nations, Centre, State Govt. & University
- Basis of adoption of village/slums, methodology of conduction survey
- Financial pattern of the scheme
- Coordination with different agencies
- Maintenance of the Diary

Unit -03: Community Mobilization

- Functioning of Community Stakeholders
- Designing the message in the context of the problem and the culture of the community
- Identifying methods of Mobilization
- Youth-Adult Partnership
- Concept of society development

Unit -04: Volunteerism and Shramdan

- Indian Tradition of Volunteerism
- Value system of Volunteerism
- Motivation and Constraints of Volunteerism
- Shramdan as a part of Volunteerism, Role of NSS Volunteers in Swatch Bharat Abhiyan
- Role of NSS Volunteers in Digital India

Project Work/ Practical: The Project selected by the respective College

NOTE:-

The paper setter will set Nine questions in all i.e. two questions from each of the Unit carrying twenty marks each and the ninth question containing ten short answer type questions carrying two marks each, covering the entire syllabus. Candidates will be required to attempt four questions selecting one question from each unit and the fifth question containing short answer questions will be compulsory.

B.A NATIONAL SERVICE SCHEME PASS COURSES

Choice Based Credit System (W.E.F. Session 2020-21)

Semester –II

Paper: Planning and Training programmes and other activities (NSS: 02)

Time: 3-Hrs

Max. Marks: 150

Theory Paper	:	100
Internal assessment	:	20
Project Work	:	30

Unit -01:

- Orientation for selected NSS Volunteers and other YLTC programmes
- Training/Orientation for NSS Programme Officers
- c Centre Govt., State Govt., University and Colleges.
- NSS regular and special camping programmes (Pattern of Financial expenditure)
- Social survey of seven days special camp.

Unit -02: Concept of Society and Social Issues in India

- Decline of value system
- Decline of family system
- Gender Discrimination issues
- Issues (Regionalism in India)
- cast system in India

Unit -03: Indian Constitution and Social Justice

- Sources of Indian Constitution
- Features of Indian Constitutions
- The Concept of Social Justice
- Features of Social Justice
- Inclusive Growth

Unit -04: Social Harmony and National Integration

- Indian history and culture
- Role of youth in peace-building and conflict resolution
- Role of youth in Nation building
- Youth development programmes at the National Level, State Level and voluntary sector
- Youth Development Programme at University level, College level and Voluntary Selection (NGO)

Project Work/ Practical

Conducting surveys on special theme and preparing a report thereof.

NOTE:-

The paper setter will set Nine questions in all i.e. two questions from each of the Unit carrying twenty marks each and the ninth question containing ten short answer type questions carrying two marks each, covering the entire syllabus. Candidates will be required to attempt four questions selecting one question from each unit and the fifth question containing short answer questions will be compulsory.

MAHARSHI DAYANAND UNIVERSITY, ROHTAK

B. A. NATIONAL SERVICE SCHEME (Pass Course)

Choice Based Credit System (W.E.F. Session 2020-21)

Sem.	Course Opted	Course Name	Credits	Marks	Int. Assess.	Field Work	Total Marks
I	Ability Enhancement Compulsory Course-I	English/Hindi/MIL Communication/Environmental Science	4	80	20		100
	Core Course-I	English/Hindi/MIL Communication	6 (5+1)	100	20	30	150
	Core Course-II (Theory)	Basic of NSS	6 (5+1)	100	20	30	150
	Core Course-III (Theory)	NSS Programmes and Activities	4	80	20		100
	Core Course-III (Practical)	Shramdan	2	50	00		050
II	Ability Enhancement Compulsory Course-II	English/Hindi/MIL Communication/Environmental Science	4	80	20		100
	Core Course-IV	Planning and Training programmes and other activities	6 (5+1)	100	20	30	150
	Core Course-V	Concept of Society and Social issues in India	6 (5+1)	100	20	30	150
	Core Course-VI (Theory)	Indian Constitution and Social Justice	4	80	20		100
	Core Course-VI (Practical)	Social Harmony and National Integration	2	50	00		050
III	Skill Enhancement Course - I	Research in NSS	4	80	20		100
	Core Course-VII	English/Hindi/MIL Communication	6 (5+1)	100	20	30	150
	Core Course-VIII	Regular Activities of NSS	6 (5+1)	100	20	30	150
	Core Course-IX (Theory)	Special Camp Planning	4	80	20		100
	Core Course-IX (Practical)	Cleanliness Planning	2	50	00		050
IV	Skill Enhancement Course - 2	Disaster Management and Indian Constitution	4	80	20		100
	Core Course-X	Environment Issues	6 (5+1)	100	20	30	150
	Core Course-XI	Preamble of Indian Constitution	6 (5+1)	100	20	30	150
	Core Course-XII (Theory)	Environment Changes	4	80	20		100
	Core Course-XII (Practical)	Field Work	2	50	00		050
V	Skill Enhancement	Surveying Method in NSS	4	80	20		100

	Course – 3 (Theory)						
	GE: 1 Generic Elective	Human Rights Awareness Programme	6 (5+1)	100	20	30	150
	DSE: Discipline Specific Elective-II	First Aid Programmes in Educational Institution	6 (5+1)	100	20	30	150
	Discipline specific elective - 2	Right to Information Act, 2005 in Community and Educational Institution	6 (5+1)	100	20	30	150
VI	Skill Enhancement Course – 4	Civil Defense Programme in Educational Institution	4	80	20		100
	GE: 2 Generic Elective	HIV/AIDS Awareness Programme in community	6 (5+1)	100	20	30	150
	DSE: Discipline Specific Elective	Consumer Rights awareness Programmes in Institutions	6 (5+1)	100	20	30	150
	Sec – 4 Skill Development Programme	Skill Development in Community and Educational Institute	6 (5+1)	100	20	30	150

(A) Core Papers NSS (Theory + Practical) (Credit: 4+2 = 06 each : Total: 24

1. Basic of NSS
2. Planning and Training Programmes
3. Regular Activities of NSS
4. Disaster and Indian Constitution

(B) Generic Elective NSS (Credit: 06 each) : Total: 12

(Select any one in Semester V)

1. Natural Disaster
2. Man Made Disaster

(Select any one in Semester VI)

1. Blood Donation
2. Body Donation
3. Eye Donation

(C) Discipline Specific (NSS) Elective Papers (Credit: 06 each) Total: 12

(DSE 5 & 6)

Odd Semester: (Select any one)

1. Citizen duties
2. Human Rights
3. Consumer Rights

Even Semester: (Select any one)

1. University Level Planning
2. State Level Planning
3. National Level Planning

(D) Skill Enhancement Course (any four) (Credit: 04 each) Total: 16

1. NSS and Survey Method
2. Camp Planning
3. Field Sharmdan Methods
4. Reporting Writing

Sd/-

Prof. Ranbir Gulia

Co-ordinator (NSS)

Scheme for B.A. Program- Applied Arts

Semester	Course Opted	Course Name	Credits	Total Marks
I	Ability Enhancement Compulsory Course-I	Environmental Science	4	100
	Core Course-1	DSC1A (English/Hindi/MIL Communication)	6	150
	Core Course-1I	DSC 2A Theory- Theory of Applied Art Practical- Simple Sketching	2 4	50 100
	Core Course-1II	DSC3A	6	150
II	Ability Enhancement Compulsory Course-II	English/ Hindi/MIL Communication	4	100
	Core course-IV	DSC IB (English/Hindi/ MIL Communication)	6	150
	Core course-V	DSC 2 B Theory- Advertising Practical- Graphic Design	2 4	50 100
	Core course-VI	DSC 3 B	6	150
III	Skill Enhancement Course-1	SEC-1 Theory- Advertising Practical- Sketching	2 2	50 50
	Core course-VII	DSC IC (English/Hindi/ MIL Communication)	6	150
	Core course-VIII	DSC 2C Theory- Theory of Applied Art Practical- Illustration	2 4	50 100
	Core course-IX	DSC 3C	6	150
IV	Skill Enhancement Course-2	SEC-2 Theory- Advertising Practical- Pictorial Design	2 2	50 50
	Core course-X	DSC ID (English/Hindi/ MIL Communication)	6	150

	Core course-XI	DSC 2D Theory- Theory of Applied Art Practical- Press layout	2 4	50 100
	Core course-XII	DSC 3D	6	150
V	Skill Enhancement Course-3	SEC-3 Theory- Lettering and Typography Practical- Lettering and Typography	2 2	50 50
	Generic Elective-1	GE-1 Theory- Theory of Applied Art Practical- Press layout	2 4	50 100
	Discipline Specific Elective-1	DSE-1 Theory- Theory of Applied Art Practical- Poster	2 4	50 100
	Discipline Specific Elective-2	DSE-2	6	150
	Skill Enhancement Course-4	SEC-4 Theory- Theory of various medium of Art Practical- Illustration	2 2	50 50
VI	Generic Elective-2	GE-2 Theory- Advertising Practical- Poster	2 4	50 100
	Discipline Specific Elective-3	DSE-3 Theory- Theory of Applied Art Practical- Poster	2 4	50 100
	Discipline Specific Elective-4	DSE-4	6	150
		Grant Total	132	3300

Scheme for B.A. Program - Painting

Semester	Course Opted	Course Name	Credits	Total Marks
I	Ability Enhancement Compulsory Course-I	Environmental Science	4	100
	Core Course-1	DSC1A (English/Hindi/MIL Communication)	6	150
	Core Course-II	DSC 2A Theory- History of Art Practical- still life	2	50
			4	100
Core Course-1II	DSC3A	6	150	
II	Ability Enhancement Compulsory Course-II	English/ Hindi/MIL Communication	4	100
	Core course-IV	DSC IB (English/Hindi/ MIL Communication)	6	150
	Core course-V	DSC 2 B Theory- Appreciation of Art Practical- Design	2	50
			4	100
Core course-VI	DSC 3 B	6	150	
III	Skill Enhancement Course-1	SEC-1 Theory- Appreciation of Art Practical- Sketching	2	50
			2	50
	Core course-VII	DSC IC (English/Hindi/ MIL Communication)	6	150
	Core course-VIII	DSC 2C Theory- History of Art Practical- Landscape	2	50
4			100	
Core course-IX	DSC 3C	6	150	
IV	Skill Enhancement Course-2	SEC-2 Theory- Appreciation of Art Practical- Stencil Painting	2	50
			2	50
	Core course-X	DSC ID (English/Hindi/ MIL Communication)	6	150

	Core course-XI	DSC 2D Theory- Appreciation of Art Practical- Composition	2 4	50 100
	Core course-XII	DSC 3D	6	150
V	Skill Enhancement Course-3	SEC-3 Theory- History of Art Practical- Object Study	2 2	50 50
	Generic Elective-1	GE-1 Theory- Appreciation of Art Practical- Sketching and landscape	2 4	50 100
	Discipline Specific Elective-1	DSE-1 Theory- History of Art Practical- Object Study	2 4	50 100
	Discipline Specific Elective-2	DSE-2	6	150
	VI	Skill Enhancement Course-4	SEC-4 Theory- Appreciation of Art Practical- Collage	2 2
	Generic Elective-2	GE-2 Theory- History of Indian and Western Art Practical- Pictorial Design and Head study	2 4	50 100
	Discipline Specific Elective-3	DSE-3 Theory- Appreciation of Art Practical- Life Drawing	2 4	50 100
	Discipline Specific Elective-4	DSE-4	6	150
		Grant Total	132	3300

