



BACHELOR OF SCIENCE (B.Sc.)

(THREE YEAR DEGREE COURSE)

SUBJECT

MILITARY STUDIES

OR

DEFENCE AND STRATEGIC STUDIES

B.Sc. (DEFENCE AND STRATEGIC STUDIES)

The entire curriculum is to be divided into four units and each question paper will have:

1. First question – compulsory- Comprising of TEN Short Answer Questions (1 to X) covering the entire curriculum. This question will carry 40% marks of the total marks.
2. The rest of the question paper will be divided into Four Units, comprising of Two questions in each unit. Therefore, the total number of question in each paper shall be NINE.
3. Student will have to attempt one question from each unit.
4. All these (Four) questions will be of equal marks and will carry 60% marks of the total marks.
5. The minimum passing marks in each paper shall be 33% of the total marks. The candidate has to pass theory and practical separately. Total passing percentage (aggregate) to obtain the degree shall be 36%.
6. In the part I and II, there shall be two theory papers and one practical. Maximum marks shall be 35/50 for B.A. and B.Sc. respectively. For practical, it shall be 30/50 marks for BA and B.Sc. respectively.
7. In Part III there shall be three theory papers and one practical maximum marks shall be 35/50 for B.A. and B.Sc. respectively. For Practical, its shall be 45/75 marks for B.A. and B.Sc. respectively.

B.Sc. (MILITARY STUDIES)

COURSE STRUCTURE

FIRST YEAR

PAPER – 101: Art of war in India (upto 1947)

PAPER – 102: Evolution of Armament and Western Art of Warfare

PAPER – 103: Practical- Map Reading

SECOND YEAR

PAPER – 201: Art of war in India (after 1947)

PAPER – 202: National Security

PAPER – 203: Practical - TEWT

THIRD YEAR

PAPER – 301: Evolution of Strategic Thought

PAPER – 302: Military Psychology

PAPER – 303: Study of War

PAPER – 304: Practical

B.Sc. (MILITARY STUDIES)

FIRST YEAR DETAILED SYALLBUS

PAPER – 101

Art of War in India (upto 1947)

Unit-I: Ancient India

- (a) Military system in Vedic and Epic Age.
- (b) Broad division of Armed forces.
- (c) Kautilya's Philosophy of War - organization and art of war

Unit-II: Late Ancient Period:

- (a) Decline of chariots and rise of cavalry
- (b) Rajput Military system
- (c) Battle of Terrain 1192

Unit-III: Medieval India

- a) Invasion of Turks - Battle of Somnat
- b) Mughal Military systems - Mansabdari System, Battle of Khanwa.
- c) Maratha Military System - Guerilla Concept, Third Battle of Panipat
1761
- d) Sikh Military system - Battle of Soberaon (1846)

Unit-IV: Modern India

- (a) Armed forces under East India Company
- (b) First war of Independence 1857

(c) Armed forces under the crown

(d) Presidency Armies and Indianization of Armed Forces

BOOKS RECOMMENDED

1. Singh S D - Ancient India war fare with special reference to vedic period.
2. Majumdar, B.K. - Military system in ancient India.
3. Majumdar, B.K. - Bhartiya sena ka itihās
4. Fular JFC - Generalship of Alexander the Great
5. Kongle, RP - Kautilaya's Arthashastra
6. Sarkar Jadunath - Military history of India
7. Irvin - Bhartiya mugalon ki sainya vyavastha (translated)
8. Sen S N - Military system of maratha
9. Duff grant - Marathon ka itihās
10. Bajwa FS - Military system of sikh
11. Tripathi R P - Rise and fall of the mugal
12. Gupta N R - Marathas and Panipat
13. Sharma Y K - Military science part 1

14. Pandey and Chaubey - Sainya Adhyan
15. Tewari, N P Bhartiya Sainya Itihaas (Sharda Prakashan Alld.)
16. Singh, Lallan ji - Bhartiya Sainya Itihaas aur Yudh Ke Siddhant

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FIRST YEAR DETAILED SYALLBUS

PAPER – 102

Evolution of Armament and Western Art of Warfare

Unit-I: Age of Valour and Chivalry

- (a) Organization and art of war of Greek phalanx and Roman legion
- (b) Emergence of armour and armoured knights.

Unit-II: Age of Gun powder and Steam

- (a) Tactical Reforms of Gustavas Adolphus
- (b) Development of naval power
- (c) Nation-in-arm

Unit-III: Age of Oil and Atomic Energy

- (a) Technological innovations and their effect on war
- (b) Nations-at-war
- (c) New devices of world war-I and II
- (b) Effect of atom on war

Unit-IV: Cyber warfare

- (a) Necessity of computer
- (b) Their use in war

BOOKS RECOMMENDED

1. Fuller, J.F.C. Armament and History
2. Tandon, B.K. Pashchaty a Yodhan Sambhar.
3. Tewari, N.P. Yodhan Sambhar
4. Verma M.P. Yodhan Sambhar
5. Arther Birnie Art of War
6. A.P.J. Abdul Kalam - Mere Sapno ka Bharat
7. Fuller The American Civil War
8. "Nuclear Weapon" A book published by UNO
9. Martin Van Prevelde Technology & War

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FIRST YEAR DETAILED SYALLBUS

PAPER – 103

Practical- Map Reading

1. Introduction of topographical sheet
2. Conventional signs - geographical and military
3. Finding out north by different methods
4. Grid system - Four figure and six figure map reference
5. Scale - simple and comparative scale, construction and interconversion
6. Liquid prismatic compass - uses by day and night
7. Bearing - interconversion and use of service protractor
8. Determination of position on a girded map, resection and intersection
9. Determination of visibility on survey maps of hilly region by gradient proportion and section drawing method.

BOOKS RECOMMENDED-

1. Verma MP - Sainik manchitra vigyan
2. Sharma, YK - Map reading
3. Singh Balwant - An easy approach to map reading
4. Gale and Porden - A complete guide to military map reading
5. Srivastava, JM Practical military science part 1
6. Maliwal, BN - Military science practical

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SECOND YEAR DETAILED SYALLBUS

PAPER – 201

Art of War in India (after 1947)

Unit-I: Partition of India

- (a) Status of Armed forces
- (b) Partition of India
- (c) genesis and prospects of Kashmir dispute
- (d) Military operation in Kashmir (1948)

Unit-II: Sino-Indian war 1962

- (a) Border dispute
- (b) Military operations in brief
- (c) Politico military lessons

Unit-III: Indo-Pak war 1965 and 1971

- (a) Background and causes of indo-Pak war 1965
- (b) Military operations on Western Fronts, Politico military lessons
- (c) Genesis and Causes of Indo-Pak war 1971
- (d) Military operation in Eastern front and Emergence of Bangla Desh
- (e) Politico military lessons

Unit-IV: Kargil conflict 1999

- (a) Causes

(b) Military operation, Role of IAF

(c) Lessons

BOOKS RECOMMENDED

1. Singh Bhopinder - Indo - Pak conflict on Kashmir
2. Chopra, MK - India - the search for power
3. Cohen, SP - The Indian army
4. Cohen, SP - The Pakistan army
5. Dalvi, JP - Himalyan blunder
6. Sinha, S - The Chinese aggression
7. Murti, TS - India - China boundary: India's option
8. Maxwells - India's china war of 1962.
9. Gupta, sisir - Kashmir
10. Singh Nagendra - The theory of force and organization of defense
11. Mankekar, DR - 22 Faithfull days
12. Singh harbaksh - Indo - Pak conflict 1965
13. Palit DK - War in deterrent age
14. Singh, S - Liberation of Bangladesh
15. Kavic, LJ - India's quest for security
16. Saigal, JR - Unfought war of 1962
17. Subramanyam, K - India's security and Bangladesh
18. Singh, Jasjeet - KARGIL 1999

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SECOND YEAR DETAILED SYALLBUS

PAPER – 202

National Security

Unit I: Introduction and Determinants of security

- (a) Meaning & Theories of National Power
- (b) Power Profile of Nation State, Elements of National Power
- (c) Determinants of security- Conceptual framework
- (d) Territorial integrity and sovereignty, Threats from immediate neighbours
- (e) Insurgency, counter insurgency: Concept & dimensions

Unit II: International Security

- (a) Viable Trends: Co-relation between foreign, defence, regional, domestic policies
- (b) Collective security; balance of power
- (c) International Terrorism
- (d) Global Power Interest in Indian Ocean and India's Maritime Security and Options

Unit III: Geo-strategic and Geo-Political Consideration

- (a) Role of Pakistan
- (b) Role of China
- (c) Options for India

Unit IV: India's capabilities to meet security threat

- (a) Status of science and technology
- (b) Need for nuclear power
- (c) Military capability

BOOKS RECOMMENDED:

1. Chodhary, JN - India's problem of national security in 1970
2. Chatterji, PN - India's land borders problems and challenges
3. Kavic, LJ - Indias quest for securities
4. Bajpai, SC - Northern frontier of India
5. Khera, SS - India's defence problem
6. Pannikar, km - Problems of India's defence
7. Subhramanyam, K - Defence and development
8. Rao, V.K.R.V. - War in Indian economy
9. Mahajan, VD - International security
10. Quincy, Wright - A study of war
11. Srivastava, JM - Rashtriya Suraksha
12. Singh, Lallan ji - Rashtriya raksha ke aayam
13. Hartman - The relations of nations
14. Martin, W - Power Politics

15. Singh, R.K. - Rashtriya Suraksha
16. Mishra, S.K. - Rashtriya Raksha Evam Pratiksha
17. Pandey, Babu Ram Rashtriya Suraksha Evam Antarrashtriya Sambandh
18. Singh, S.B. & Pandey - Bharat ki Suraksha Samasyaen
19. Sengar, SKS - Security Sensitivity of Himalyas

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SECOND YEAR DETAILED SYALLBUS

PAPER – 203

Practical – TEWT

TACTICAL EXERCISE WITHOUT TROOPS

1. Outline organization of Infantry Battalion.
2. Organization, weapons and equipment at platoon level.
3. Elementary knowledge of modern tactics: field craft-
 - (a) Study and description of ground
 - (b) Judging distance
 - (c) Indication of target
 - (d) Fire control order
 - (e) Section formation, Platoon Formation
4. Verbal order at Platoon level
5. Patrolling
 - (1) General
 - (2) Preparation
 - (3) Conduct
 - (4) De- briefing
6. Message Writing
7. Appreciation on the sand model on the following:
 - (A) ATTACK

(B) DEFENCE

The narrative will be at platoon level and students would be required to attempt the exercise at section and platoon level.

BOOKS RECOMMENDED:

1. Kresey - simple tactics.
2. Ward, GR - section training exercise
3. Valentine - Sand model exercise
4. Gambel Lt. Col. - simplified tactical instructions
5. Barlew - small arms manual
6. Liddellhart - elements of tactics
7. Sharma and Nigam - samartantra abhyas

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THIRD YEAR DETAILED SYALLBUS

PAPER –301

Evolution of Strategic Thought

Unit I : Upto World War I

- (a) Sun Tzu - Thought on war
- (b) Machiavelli - Renaissance of Art of war
- (c) Jomini – Strategy, Tactics & Logistics
- (d) Clausewitz - war and politics

Unit II: Between two wars

- (a) Carl Marx - Industrial Society
- (b) Lenin - Proletarianism
- (c) Douhet - Theory of air power
- (d) A..T. Mahan - Sea Power
- (e) Liddle Hart – Mechanized Warfare

Unit III: After world war II

- (a) Mao Tse Tung - Revolutionary warfare
- (b) Che Guevera - Guerilla warfare

Unit IV: Modern Theories

- (a) Theory of Deterrence
- (b) Disarmament and arms control – Concept, utility & Possibilities

BOOKS RECOMMENDED:

1. Earle, EM - makers of modern strategy
2. Beaufre Andre - Strategy of action
3. Bridie, B - Strategy in the missile age
4. Bridie, B - A guide to naval strategy
5. Clausewitz - On war
6. Tung and Guevera - Guerilla war fare
7. Fullar, JFC - The conduct of war
8. Fullar, JFC - Armoured war fare
9. Gilbert, G - The evolution of strategy
10. Kissinger, HA - Problems of national strategy
11. Hoverd, M - Theory and practice of war
12. Kittle, JD - Jomini & his summary of art of war
13. Sharma & Nigam - Sainya Vicharak
14. Johari, RC - Pashchatya Sainya Vicharak
15. Singh, Lallan ji - Sainya Chintak
16. Srivastava J.M. - Sainya Chintan
17. Adhikari, Shekhar - Aadhunik Stratgic Chintan
18. Singh, R.K. - Vishwa Ke Pramukh Stragetic Chintak

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THIRD YEAR DETAILED SYALLBUS

PAPER –302

Military Psychology

Unit I : Development of Military Psychology

- (a) Concept
- (b) Utility
- (c) Scope

Unit II: Individual Factors in armed Forces

- (a) Personnel selection
- (b) Intelligence
- (c) Personality

Unit III: Group Dynamics in Military life

- (a) Structure, Types and functions
- (b) Leadership - nature, function, types
- (c) Morale - Nature, determinants

Unit IV: Psychological warfare

- (a) Concept, types

(b) Propaganda, Rumour

(c) Coersive persuasion

(d) Brain washing- Methods

BOOKS RECOMMENDED:

1. Barlett, FC - psychology and the soldier
2. Boring, EG - psychology for the armed forces
3. Lien, Barger - psychology war fare
4. Narayan Raj - military psychology
5. Barar, Lien - psychology of war fare
6. Mark, A. Hay - social psychology of war and peace
7. Morgan and King - introduction to psychology
8. Jain, Mrs. Pushpa - introduction to psychology
9. Parik - sainik manovigyan
10. Tiwari, NP - Sainya manovigyan
11. Gupta, Parashuram - sainya manovigyan
12. Copeland, N. Psychology and Solider

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THIRD YEAR DETAILED SYALLBUS

PAPER –303

Study of War

Unit-I: War

- (a) Definition
- (b) Evolution
- (c) Types conventional and non-conventional

Unit-II: Strategy

- (a) Definition and scope
- (b) Types; Grand Strategy, Geo-strategy
- (c) Strategy of exhaustion and annihilation

Unit-III: Tactics and Art of war

- (a) Meaning of tactics; function
- (b) Constant tactical factor (CTF)
- (c) Meaning and utility of art of war
- (d) Fusion of strategy and tactics

Unit-IV: Causes and Forms of war

- (a) Causes of war-Political, Social, Economic, Military
- (b) Cold war - Concept, Evolution
- (c) Psychological war - methods and impact

(d) Elementary treatment of total war, limited war, nuclear war,
low intensity conflicts (LIC)

BOOKS RECOMMENDED:

1. Beufre, A - Introduction to Strategy
2. Palit, D.K. - Essential of Military Knowledge
3. Burne, A - Art of War on Land
4. Shyam Lal & Mukherjee - Art of War on Land
5. Hamle - Operation of war
6. Worley - New Development in Weapon, Tactics and organization
7. Birnie, Arther - Art of War
8. Maliwal, B.N. - Ishtal Yudh Kala
9. Tandon, B.K. - Yudh Kala
10. Wright, Quincy - A Study of war
11. Singh, Jodh - Art of war

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THIRD YEAR DETAILED SYALLBUS

PAPER –304

PRACTICAL

JOURNALISM AND RESCUE

(A) Strategic / Defence journalism (news paper clippings on relevant defence topics and a short essay of 25 pages on the basis of clippings) be produced.

(B) Sand model exercise on rescue operations

or

Tour report pertaining to different defence establishment and geo strategic areas of importance

(C) Lecturette and group discussion on current defence topics.

(D) Lab record and viva - voice

MARKING SCHEME:

S.No.	B.Sc.
A.	15
B.	20
C.	25
D.	15(10+5)
TOTAL	75