



**RASHTRASANT TUKADOJI MAHARAJ
NAGPUR UNIVERSITY**

B.A. SEMESTER I TO VI

MILITARY SCIENCE

Syllabus

RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY

B. A SEMESTER MILITARY SCIENCE

Semester I & II

Objective:

1. To develop Character and comradeship, patriotism, as well as Keenness for service and capacity for leadership in the youth.
2. To make student aware about the knowledge of Military training and builds a ready reserve, which the Armed Forces could easily make use of in times of national emergency.
3. To make aware about the basics of Military Organization.

Semester I

1T1 Military Science and Methods of Study

1. Military Science Definition
2. Methods of Study
3. Military Science and History
4. Military Science and Psychology

1T2 Military Tactics

1. Field Defenses.
2. Formation
3. Patrolling
4. Ambush

1T3 Map Reading

1. Introduction of Map Reading.
2. Topographical Form & technical Terms.
3. Service Protractor, Prismatic Compass, Types of bearing.
4. Cardinal Points & Finding North.
5. Setting a map & finding own position.

1T4 Organization & Administration

1. Importance of Logistics in war/ active operations.
2. Administration in peace up to Company Level.
3. Administration in war up to Company Level.
4. Organization of Armored squadron.
5. Organization of Higher Command in Army, Navy & Air Force.

Military Science
Syllabus
Semester II

2T1 Modern War

1. Atomic War
2. Chemical War
3. Biological War
4. Psychological War
5. Economic War

2T2 Weapon training

1. Object of Weapon training
2. Rifle Mark 3rd
3. Care and Cleaning of Rifle
4. Rules of Aiming
5. Firing Positions
6. Essentials of Good Shooting

2T3 Adventure Training

1. Introduction to adventure Training, Planning Organization & Conduct.
2. Cycle & Trekking Expeditions.
3. Organization & Conduct of Sightseeing.
4. Spirit of Mountaineering.
5. Selection of camp site Layout & Sanitation in camp.

2T4 Leadership training & Man Management

1. Leadership Traits.
2. Introduction to Man Management & Morale
3. Duties of a good Citizen
4. Discipline & National Integration
5. Personality development.

Books Recommended

Sr. No.	Name of Books	Author
1.	Hand Book Of NCC	KantiPrakashan, Etawah
2.	A History of Warfare	Montgomery
3.	Essential Of Military Knoledge	D. K. Patil
4.	Modern War System	ArchanaChaudhari
5.	Organization & Administration in the Indian Army	Brig Rajendra Singh
6.	DefenceProgramme of India	B.H. Mishra
7.	सैन्य अध्ययन	बबुरामपांडे
8.	राष्ट्रीय रक्षा व सुरक्षा	ललनजी सिंह
9.	सैन्य विज्ञानभाग १	श्यामलाल व रामऔतार
10.	भारतीय युध्द कला	सेनवणे
11.	संरक्षणशास्त्र	ए.पी. चौधरी
12.	सैन्य विज्ञान, चन्द्रप्रकाश एंड ब्रदर्स	लिफिटनेट के.एन.ब्रीवास्तव

RASHTRASANT TUKDOJI MAHARAJ NAGPUR UNIVERSITY

**B. A. PART – I
MILITARY SCIENCE
MARK DISTRIBUTION**

Semester I & II

Sr. No.	Subject	Name of the paper	Mark		
			Theory	Internal	Practical
1	B.A. Part – I Military Science				
2	Semester – I	Military Science	50	20	30
3	Semester - II	Military Science	50	20	30

QUESTION PAPER PATTERN

Semester I & II

Sr. No.	Pattern of Question Paper	Marks
Q. 1	Multiple choice One Long Answer Question to be answered in about 150 words (Based on Prescribed Text – Unit I & II)	10
Q. 2	Multiple choice One Long Answer Question to be answered in about 150 words (Based on Prescribed Text – Unit III& IV)	10
Q. 3	Multiple choice Four Short Answer Question to be answered in about 50 words (Based on Prescribed Text – Unit I & II)	10
Q. 4	Multiple choice Four Short Answer Question to be answered in about 50 words (Based on Prescribed Text – Unit III & IV)	10
Q. 5	Five Short Answer Question in about 50 words (based on Prescribed Text Unit I,II,III & IV)	10

RASHTRASANT TUKDOJI MAHARAJ NAGPUR UNIVERSITY

B. A. SEMESTER III & IV MILITARY SCIENCE

Objective:

1. To develop character and comradeship, patriotism, as well as keenness for service and capacity for leadership in the youth.
2. To make Students aware about the basic knowledge of Military Training and Builds a Ready reserve, which the Armed Forces Could easily make use of in times of national emergency.
3. To make aware about the of Military Organization.

Semester III

3T1 : The Military of Ancient India

1. The Vedic period
2. The Magadha Dynasties
3. The Golden Age
4. The Classical Age

3T2: Field Craft

1. Dispersion
2. Ground
3. Cover from view
4. Cover from fire

3T3 : Community Development

1. Adult Education
2. Anti Dowry Driver
3. Anti Malaria Driver
4. Environment Conservation & Wild Life Protection

3T4 : Civil Defence

1. Introduction to Civil Defence
2. Structure of Civil Administration
3. Fire Fighting
4. Rescue Operations.

Military Science
Syllabus
Semester IV

4T1 : War

1. War
2. Principles of war
3. Battle Procedures
4. Operation of war

4T2: Communication process

1. Main Elements of Communication Process
2. Methods of Communication
3. Information System & Types of information
4. Types of Communication

4T3: First Aid

1. Structure & Function of the Human Body & Principles of First Aid
2. First Aid Equipment
3. Respiration – Natural & Artificial
4. Snake Bite, Scorpion & Dog Bites

4T4 : Section Leading

1. Section Formation
2. Jungle Warfare Field – Signals
3. Verbal Orders
4. Messages

Books Recommended

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1.	Hand Book of NCC	Kanti Prakashan, Etawah
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4.	Modern War System	Archana Chaudhari
5.	Organization & Administration in the Indian Army	Brig Rajendra Singh
6.	Defence Programme of India	B. H. Mishra
7.	सैन्य अध्ययन	बबुराम पांडे
8.	राष्ट्रीय रक्षा व सुरक्षा	ललनजी सीही
9.	सैन्य विज्ञान भाग	श्यामलाल व राम औतार
10.	भारतीय युद्ध कला	सोनवणे
11.	संरक्षणशास्त्र	ए. पी. चौधरी

RASHTRASANT TUKDOJI MAHARAJ NAGPUR, UNIVERSITY

**B.A. Part – I
Military Science
Mark Distribution**

Semester III & IV

Sr. No.	Subject	Name of the Paper	Marks		
			Theory	Internal	Practical
1.	B.A. Part –II Military Science				
2.	Semester – III	Military Science	50	20	30
3.	Semester – IV	Military Science	50	20	30

QUESTION PAPER PATTERN

Semester V & VI

Sr. No.	Pattern of Question Paper :	Marks
Q.1.	Multiple Choice One Long Answer Question to be answered in about 150 words (Based on Prescribed Text – Unit I & II)	10
Q.2.	Multiple Choice One Long Answer Question to be answered in about 150 words (Based on Prescribed Text – Unit III & IV)	10
Q.3.	Multiple Choice Four Short Answer Question to be answered in about 50 words (Based on Prescribed Text – Unit I & II)	10
Q.4.	Multiple Choice Four Short Answer Question to be answered in about 50 words (Based on Prescribed Text – Unit III & IV)	10
Q.5.	Five Short Answer Question in about 50 words (Based on prescribed Text Unit I,II,III, & IV)	

RASHTRASANT TUKDOJI MAHARAJ NAGPUR, UNIVERSITY
B.A. SEMESTER V & VI
Military Science

Objective:

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Semester V

Paper I

Defence and Strategic Studies

UNIT : I History of Indo – Pakistan War

1. Indo – Pakistan War of 1947
2. Indo – Pakistan War of 1965
3. Indo – Pakistan War of 1971
4. Kargil War 1999

UNIT : II Second Line of Defence / Para Military Force

1. Border Security Force
2. Territorial Army
3. Central Reserve Police Force
4. State Reserve Police

UNIT : III Internal Security Challenges

1. Terrorism
2. Naxalism
3. Insurgency
4. Drug Trafficking

UNIT : IV Problems of our Increasing Population

1. Food & Shelter (Basic Needs)
2. Health & Hygiene
3. Gender Differences
4. Pollution
5. War As an Economic problem – Defense and Development

Military Science
Semester V
Paper – III
Disaster Management

UNIT : I Disaster

1. Meaning, Concepts, Principles, Scope, Objectives and Approaches.
2. Elements of Disaster Managements.

UNIT : II 2A. Natural Disaster

1. Characteristics.
2. Types: Earthquake, Volcano, Tsunami, Land Slide, Cyclone.

B. Manmade Disaster

1. Characteristics.
2. Types: Nuclear, Chemical, Medical Adulteration, Global Warming, Accidents- Causes & Effects
3. War Disaster

UNIT : III Environmental Pollution

1. Meaning & Concept
2. Marine and Coastal Pollution
3. Radioactive Pollution – Nature, Sources, Effects & Control
4. Thermal Pollution – Sources, Effects and Prevention of Thermal Pollution
5. Pollution and Natural Disaster
6. Role an Individual in prevention of pollution

UNIT : IV Environmental Disaster and Human Population

1. Definition of Environment Disaster & population
2. Elements.
3. Types – Climate Change, Global Warming, Acid Rain, Ozone Layer Depletion, Population Pressure – Causes & Effects.
4. Human Health and Disaster.
5. Increasing population & Effect on National Power.

Military Science
Semester V
Paper – II
India's National Security

UNIT : I National Security

6. Meaning and concept
7. Scope of National Security
8. Traditional and Non-Traditional Security
9. Comprehensive Security
10. National Interest

UNIT : II National Security Problems

- 1. Internal :**
 - a. Social
 - b. Political
 - c. Economical
- 2. External :** Neighbor Countries

UNIT : III India's National power

1. Meaning
2. Elements of National Power
 - a. Geographical
 - b. Natural Resources
 - c. Population
 - d. Military Capability
 - e. Science and Technology
 - f. Economic System
 - g. Political System

UNIT : IV Defense Production of India

1. Ordnance Factories
2. Defense Production and Public Sector Undertaking
3. Modernization Factor

Military Science
Syllabus
Semester VI
Paper I
Defense and Strategic Studies

UNIT : I Military Operations of India

1. The Chola Incident, 1967
2. Operation Blue Star, 1984
3. Sri Lanka Mission 1987-1990
4. Operation Cactus 1988

UNIT : II Battle Craft

1. Scouts & Sentries
2. Duties of Night Sentries
3. Movement with & without Arms
4. Fire Discipline & Fire Control Order

UNIT : III Nation Building

1. Concept of Nation
2. Problems of Nation Building in India
3. India's Foreign Policy
4. Poverty Alleviation Programmes

UNIT : IV Indian Missile Program

1. Short Range Ballistic Missile (SRBM)
2. Medium Range Ballistic Missile (MRBM)
3. Intermediate Range Ballistic Missile (IRBM)
4. Intercontinental Ballistic Missile (ICBM)

Military Science
Syllabus
Semester VI
Paper II
India's National Security

UNIT : I India's Nuclear Policy

1. India's need for nuclear power
2. India's nuclear options in a nuclear world
3. N.P.T.
4. C.T.B.T.

UNIT : II India and Indian Ocean

1. Geographical and Strategic Importance
2. Naval Power's in Indian Ocean
3. India's Ocean Policy

UNIT : III India and SAARC

1. Objectives
2. SAARC Conference's
3. India's Role In SAARC

UNIT : IV India and its Neighbors

1. Indo-Pak Relation-Focus on Kashmir
2. India-Srilanka-Tamil Problem
3. India-Bangladesh-Border Problem
4. Sino-India-Border Dispute

REFERENCES

1. Nuclear Proliferation and National Security – K. Subramayam
2. India's Defense Policy – Gautum Sen
3. Foreign Policy of India – K. P. Mishra
4. National Security Problems in India – L. R. Singh
5. India-China border dispute – Dr. M.L. Sali
6. Ethnic Conflict in Srilanka – Dr. P. A. Ghosh.

Military Science
Syllabus
Semester VI
Paper – III
Disaster Management

UNIT : I Disaster Management

1. Meaning and Concept.
2. Elements of Disaster Management
3. Preventive Measures.
 - a. Prior Preparation System
 - b. Information System.
 - c. Logistic.
 - d. Communication System.
 - e. Emergency Preparedness.
 - f. Forecasting.
 - g. Relief Measure System.
 - h. Medical Aid.

UNIT : II Natural Disaster Management

1. Planning, Technical Ways.
2. Co-operation factors.
3. Natural Disaster Reduction and Management.

UNIT : III Human Disaster Management

1. Role of Security Forces.
2. Role of Civil Defense.
3. Rescue – Role.
4. Search Campaign.

UNIT : IV Management of Environment and India's Participation

1. Aspects of environmental management.
2. Approaches of environmental management.
3. Natural Disaster Management and people participation with special reference to India.
4. Government Policy.

References :

- 1) Agrawal V.P. & SVS Ramal – Environmental and Natural Resources.
- 2) Arabina Samant – Cyclone Hazard and ..., Economic & Political.
- 3) Weekly Vol. 38, Ept. 20-26, 1997.
- 4) Bramhe Sulabha – Drought in Maharashtra.
- 5) Alizad. Varad, Bhos- “Paryawaran Bhugolshastra”
- 6) Gharpure Vitthal – “Paryawaran Bhugolshastra”
- 7) David Warne – Where there is no Doctor (1981)
- 8) Deshmukh Shripad- Water pollution, Noise pollution, Air pollution.
- 9) Jasjeet Sinha (Air Cdr)- “Bhartiy Parmanusastra”.
- 10) Patkar M.G.- Principal of Management.
- 11) Rais Alehtar and Yoga Verhasselt- Disease Ecology and Health.
- 12) Chare Kiran, - Rashtranirmanatil Suniyojan and Sawrakshan Shastra,
- 13) Simmons I. G. – Biography – Natural and Cultural.
- 14) Shivastava B.P. – Our Forests.
- 15) Sarang Subhashchandra- “ Paryawaran Bhugol”.
- 16) T.N.Khoshoo- Environment Concern and strategies.
- 17) Cunningham (I 11rd Cdr) – Environment Science.
- 18) Agrawal S.K. – Environmental Issues and Themes.
- 19) Trivedi P.R. Gurudeep Raj – Encyclopedia of Environmental Science.
- 20) Savindrasing – Environmental Geography.
- 21) Chatwal G. R. and shrama Harish – Environmental Studies.
- 22) Dr. Nadaf F. M. & Mr. Pawaskar–Environmental Studies–Volume 1,11
- 23) Prof. Patil Jayashree – Environmental Sciences.

Sr. No.	Name of Books	Author
1.	Hand Book of NCC	Kanti Prakashan, Etawah
2.	A History of Warfare	Montgomery
3.	Essential of Military Knowledge	D. K. Patil
4.	Modern War System	Archana Chaudhari
5.	Organization & Administration in the Indian Army	Brig Rajendra Singh
6.	Defence Programme of India	B. H. Mishra
7.	Arms, Aims & Aspects	J. N. Chaudhari
8.	Environment of Military Knowledge	V. P. Agrawal & S. V. S. Ramal
9.	Cyclone Hazard & Economic & Political	Arbina Samant
10.	Water Pollution, Noise Pollution, Air Pollution	Shripad Deshmukh
11.	सैन्य अध्ययन	बबुराम पांडे
12.	राष्ट्रीय रक्षा व सुरक्षा	ललनजी सीही
13.	सैन्य विज्ञान भाग	श्यामलाल व राम औतार
14.	भारतीय युद्ध कला	सेनवणे
15.	संरक्षणशास्त्र	ए. पी. चौधरी

Books Rcommended

GONDWANA UNIVERSITY, GADCHIROLI

**B.A. Part – III
Military Science
Mark Distribution**

Semester V & VI

Sr. No.	Subject	Name of the Paper	Marks		
			Theory	Internal	Practical
1.	B.A. Part – III Military Science				
2.	Semester – V	Military Science	50	20	30
3.	Semester – VI	Military Science	50	20	30

QUESTION PAPER PATTERN

Semester V & VI

Sr. No.	Pattern of Question Paper :	Marks
Q.1.	Multiple Choice One Long Answer Question to be answered in about 150 words (Based o Prescribed Text – Unit I & II)	10
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Q.5.	Five Short Answer Question in about 50 words (Based on prescribed Text Unit I,II,III, & IV)	

Military Science

Semester I to VI

Internal Assessment (20 Marks)

Oral Test	10 Marks
Home Assignments	05 Marks
Attendance in Class room	05 Marks

RASTRASANT TUKDOJI MAHARAJ NAGPUR UNIVERSITY

B.A. SEMESTER I to VI

Military Science

Practical

Time : (3 Hours)

Marks : 30

1. Weapon Training

- R- 3 (P) Stripping as aiming & Sight setting of Riffle.
- R- 4 (P) Lying position 'and hold', including bolt manipulation.
- R- 5 (P) Trigger control and firing a shot.
- R- 6 (P) Aiming, Range figures targets–Range procedure and safety precautions.
- R- 7 (P) Alteration of Sight and firing shots.
- R- 8 (P) Firing in different wind conditions.
- R- 10,11,12 (P) Range classification firing.
- R- 13 (P) Revision/Institutional Practice.
- B- 1 (P) On Guard hip firing
- B- 2 (P) The point 2 point
- B- 3 (P) Training stick (Self defense & attack)
- LMG – 1,2 (P) Stripping, assembling, piston group and barrel.
- LMG – 3,4 (P) Loading, unloading, Sight, aiming and holding.

2. Weapon Training : Will include field craft, battle craft, patrolling and field engineering.

- FC – 3,4 (P) Judging distance and indication of targets.
- FC – 5 (P) Camouflage & Concealment
- FC – 6 (P) Fire discipline & Fire control order.
- FC – 7,8 (P) Observation and Concealment exercise.
- BC – 2 (P) Simple Verbal orders.
- BC – 3 (P) Field Signals
- BC – 4,5 (P) Section battle drill.

3. Drill : (Foot Drill, Ceremonial Drill)

- Foot drill : Attention, Stand at Ease and Turning at the halt.
- FD – 2 (P) Sizing, farming up in three ranks, numbering, open and close order march dressing.
- FD – 3 (P) Getting on parade & dismissing and fell out.
- FD – 4 (P) Saluting at the halt and March.

- FD – 5 (P) Marching – length of pace and time of marching in quick time and halt.
- FD – 6 (P) Turning at the march and wheeling.
- FD – 7 (P) Side pace, pace forward, halt in quick time and changing step.
- FD – 8 (P) Marking time, forward, halt in quick time and changing step.
- FD – 9 (P) Formation of squad and squad and squad drill.
- Arm Drill Attention, stand at Ease and Stand Easy.
- AD – 2 (P) Setting on parade with rifle and dressing at the order.
- AD – 3 (P) Demission and falling out.
- AD – 4 (P) Shumi Shastra and Utha Shastra, Bagal Shastra, Baju Shastra and vice versa.
- AD – 5 (P) Salami Shastra, Baju Shastra & Vice Versa.
- AD – 6 (P) Saluting at the March and halt.
- AD – 7 (P) Short/Long Trait from the order and vice versa.

4. Map Reading

- MR – 4,5 (P) Relief, Contour and gradient.
- MR – 7,8 (P) Setting a map and finding won position.
- MR – 9,10 (P) Compass march by Day.
- MR – 11,12 (P) Ground to map & map to ground.

5. First Aid, Hygiene & Sanitations

- FA – 3 (P) Types of fracture and first aid for each.
- FA – 4 (P) Drowning cases and artificial respiration.
- FA – 5 (P) Carriage of sick and Wounded, and carriage and use of stretcher.
- FA – 6 (P) Injuries to internal organs, burns scalds, snake bite.

6. First Aid, Hygiene & sanitations

- Making link road.
- Digging well
- Sanitation drive in lum area
- A forestation.
- Traffic control assistance including educating population in maintaining queue on bus stops & general discipline.
- Blood Donation.
- Relief work during national calamities.
- Assistance in Cheshire homes.
- Assistance to Hospitals including education population in maintaining cleanliness in Hospitals.

Chairman
Major Dr. Prabhat Dubey

Members

Prof. Anil Pise

Dr. S. Kamble