Military Science

M.A. / M.Sc. [Previous]

SEMESTER - II

PAPER - I [Part B]

Evolution of Strategic Thoughts

Marks -85

Unit - 1.

- 1. Erich Friedrich-Wilhelm Ludendorff (1865-1937).
- 2. Capt. B.H. Liddell Hart (1895-1970).
- 3. Maj. Gen. J.F.C. Fuller (1878-1966).

Unit - 2.

- 1. Giulio Douhet (1869-1930), General William L. "Billy" Mitchell (1879-1936) & Alexander Seversky (1894-1974).
- Alfred Thayer Mahan (1840-1914) & Douglas Mac Arthur (1880-1964).
- Andre Beaufre (1902-1975).

Unit - 3.

- 1. Adolf Hitler (1889-1945).
- 2. Winston Churchill (1874-1965).
- 3. Henry Alfred Kissinger (1923-).

Unit - 4.

- 1. Halford J. Mackinder (1861-1947).
- 2. Karl Haushofer (1869-1946).
- 3. Rudolf Kjellen (1864-1922).

Unit - 5.

- 1. Sun-Tzu (544 B.C.-496 B.C.)
- 2. Vladimir Ilyich Ulyanov Lenin (1870-1924).
- 3. Mao-Tse-Tung (1893 1976) & Che-Guevara (1928-1967).

Books Recommended:-

1. Quincy Wright

Study of War Vol.-I.

2. Edward Meade Earl

Makers of Modern Strategy. The Art of War in Italy.

3. Taylor

On War.

4. Clausewitz

5. Jomini

The Art of War.

6. Engels & Marx

Military Concept of the Social Revolutionaries.

7. Winston Churchill

Second World-War.

8. Liddell Hart

Strategy: The Indirect Approach. Thoughts on War.

9. Liddell Hart 10. Brig. Rajendra Singh

Word of Wisdom on War.

11. Helprin

Contemporary Military Strategy.

12. John Bylis

Contemporary Strategy.

Continue.... Evolution of Strategic Thoughts (SEMESTER-II)

13. Abdul Hariss Nasutian : Fundamentals of Guerrilla-Warfare.

14. Lord Tedder : Air Power in War. 15. Fuller J.F.C. : Conduct of War.

16. Howard Michael : Grand Strategy of World-War Second.

17. Palit D.K. : War in the Deterrent Age.
18. Rope, Theodore : War in the Modern World.
19. Cyrill Falls : Hundred Years of War.
20. Aror, Raymond : The Century of Total-War.

21. Aror, Raymond : Peace and War.

22. Schwars, Lonis : American Democracy and Military Power.

23. V.D. Sokolovasky : Soviet Military Strategy.

24. Robert E. Osgood : Limited war: The Challenge to American Strategy.

25. Johari R.C. : Pashchatya Sainya Vicharak (Hindi).

26. B.R. Pandey & R.S. Pandey
27. J.M. Shrivastava
28. Lallan Ji Singh
Stratgiya Chintan (Hindi).
Sainya Vicharak (Hindi).

29. G.C.Shrivastava : Battles of World-War and Post War Development (Hindi).

30. Shekhar Adhikari : Modern Strategic Thoughts.31. Franking Mark Osanka : Modern Guerrilla-Warfare.

Note: - Any other Books and Journals may be prescribed to enrich the Standard of Performance in the items Listed above under Theory Paper.

Military Science

M.A. / M.Sc. [Previous]

SEMESTER - II

PAPER - II [Part B]

History of Warfare in the West (From 1861-1945)

Marks -85

Unit-1.

- 1. The Russian Revolution impact of Class-Struggle and influence of Karl-Mark, Lenin's concept of Communism.
- 2. The Battle of Warsaw (13-25 August 1920).
- 3. Rice of third Reich and foundations of the Second World-War.

Unit - 2.

- 1. The Second Battle of Sedan (12-15 May1940) and the fall of France.
- 2. The Battle of Siddi Barrani (09-11 December 1940).
- 3. Operation-Barbarossa and Lend-Lease Act.

Unit - 3.

- 1. The Battle of Moscow (02 October 1941-07 January 1941).
- 2. The Battle of El-Alamein (01-27 July 1942).
- 3. Foundations of Stalingrad Campaign and the Battle of Stalingrad (23 August 1942–02 February 1942).

Unit -4.

- 1. Second Political Front.
- 2. The Battle of Normandy (06 June-25 August 1944).
- Consequences of the Battle of Normandy.

Unit - 5.

- 1. War in the Pacific (07 December 1941-02 September 1945).
- 2. The Second World-War in Retrospect and Prospect.
- 3. Strategy and Tactics of the Second World-War.

Books Recommended:-

- 1. J.F.C. Fuller : The Decisive Battles of the Western World Vol.-III [To be used as a text book].
- J.F.C. Fuller : The Second World-War.
- Montgomery : Normandy to Baltic.
- 4. Liddell Hart : Rommel Papers.
- 5. Lt.Gen. Francis Tuker : The Pattern of war.
- 6. J.F.C. Fuller : A Military of the Western World.
 7. Vasim Ahmed Khan : Vishva ke Prasiddha Yuddh. (Hindi).
- 8. Gyan Chandra Shrivastava : Battles of World-War and Post war Development. (Hindi).
- 9. Major E.W. Sheppard : The Study of Military History.

Note: - Any other Books and Journals may be prescribed to enrich the Standard of Performance in the items Listed above under Theory Paper.

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Military Science

M.A. / M.Sc. [Previous]

SEMESTER - II

PAPER – III [Part B]

Disarmament, Arms-Control and Peace

Marks -85

Unit -1.

- 1. Bilateral efforts and Agreements towards Arms-Control.
- 2. Mutual Arms-Control & Multilateral Agreements towards Arms-Control.
- 3. India-Pakistan Arms-Race and Future of Disarmament and Arms-Control.

Unit -2.

- 1. Peace and its Maintenance, Historical effects for preservation of Peace through Balance of Power and Voluntary Units.
- 2. Liddell Hart's Eight Pillars of Peace.
- 3. Peace through the Strategy of Disarmament & Arms-Control.

Unit -3.

- 1. The building of confidence and Security at the negotiations in Stockholm and Vienna START-1 & II.
- 2. The South Pacific Nuclear Free Zone.
- 3. Peace Keeping in International Politics.

Unit -4.

- 1. Peace through a World-State.
- 2. Peace through the Principles of Panchsheel and Non-Violence,
- 3. Gandhian Thoughts on Peace.

Unit -5.

- 1. Role and Organization of International Peace Keeping Forces.
- 2. Public Opinion on Peace and War.
- 3. Role of UNO towards Disarmament, Arms-Control and Peace.

Books Recommended:-

Osmidf Helmut

1	Headley Bull		The Control of Arms Race.
2	Brenan, D.G.		Arms Control and Disarmament.
3	Levine, Robert, A		The Arms Debate.
4	Singer, J.D.	8	Deterrence Arms Control and Disarmament.
. 5	Edwards		Arms Control in International Politics.
6	Stone, J.H.		Containing the Arms Race.
7	Van Bostrand		Dough Control for Late Sixties.
0	Beaton Neddox	10	The Spread of Nuclear Weapons.
9	Raymond Arer		The Imperial Republic.
	Raymond Aror		War and Peace.
10.	Howard, Michael		Study of War and Peace.
11.			Theories of Peace and Security.
12.	John Garrett (ed.)		Politics among the Nations: The Struggle for Power and Peace.
13	Morgenthau, Hans, J.		
14.	Khopp, w.	2	A history of War and Peace.
15.	Sepri		Arms trade with the third world.
16.	Sepri		Sipri Year book - 1983 & others.
10.	Sepri		Nuclear war and nuclear peace

Note: - Any other Books and Journals may be prescribed to enrich the Standard of Performance in the items Listed above under Theory Paper.

Defence of Retaliation

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Military Science

M.A. / M.Sc. [Previous]

SEMESTER - H

PAPER - IV [Part B]

Nuclear, Biological & Chemical Warfare

Marks -85

Unit -1. Biological Warfare:

- 1. Historical Development and Definition of Biological Warfare.
- Delivery Systems and Hardware of Biological Warfare.
- 3. Biological Warfare Weapons in Action, Technology of Biological Warfare and Modern Biological Operations.

Unit -2. Biological Warfare:

- 1. Various Biological Agents and Protection from the Biological Agents.
- Biological Balance and Biological Weapons Destruction.
- 3. Biological Weapons and Security & The effects of Global Biological Warfare.

Unit -3. Chemical Warfare:

- 1. Historical Development, Definition of Chemical Warfare.
- Delivery Systems and Hardware of Chemical Warfare.
- Various Chemical Agents: Nerve Agents, Blood Agents, Blister Agents, Vomiting Agents, Tear Agents and Other Agents.

Unit -4. Chemical Warfare:

- 1. Defence against Chemical Warfare.
- Chemical Weapons / Agents, when Chemical became Weapons for War, Five most deadly Chemical
- Chemical Agents Detector and Chemical Weapons in Action.

Unit -5. Chemical Warfare:

- 1. Chemical Weapon Destruction.
- 2. The Chemical Balance and Chemical Weapons and Security.
- 3. The War Chemicals, Socio-Political Climate & Chemical Warfare, Effects of the Global Chemical Warfare.

Books Recommended:-

1. Frank Barnaby

Future War.

2. Col. Friedman Richard S

Advanced Technology Warfare.

3. Royal Swedish Academy

Nuclear War the Aftermath.

4 T. J. Gander

Nuclear, Biological and Chemical Warfare.

5. Stephen King Hall

Defence in the Nuclear Age.

War and Peace in the Nuclear Age.

6. Rajveer Singh

Nuclear Pakistan.

Subramniyam

8. Roman Kolko

Dilemmas of Nuclear Strategy.

Brassev's

Nuclear and Non-Nuclear Defence Options.

War as a Political Weapon in the Nuclear Age.

10. Nirmal Jindal

Continue.... Evolution of Strategic Thoughts (SEMESTER-II)

II. Dr. Indu Prakash	:	Nuclear Vishva Yuddh aur Paryavaran. (Hindi).
12. Dr. Indu Prakash		Paryavaran aur Rasayanic Kitanu Yuddh. (Hindi).
13. Dr. Indu Prakash		Prakshepiki. (Hindi).
14. Dr. Indu Prakash	:	Yuddh ka Vigyan/Science of War. (Hindi).
15. Dr. C. L. Garg & D. K. Garg		Nabhikiya Astra-Shastra. (Hindi).
16. Dr. Vishnu Kant Sharma	1	Rasayanic Yuddh ki Taknik. (Hindi).
17. Geoff Plunkett	1	Chemical Warfare in Australia.
18. Dr. Hauk Ellison		Chemical Warfare during the Vietnam War.
19. K. Coleman	į.	A History of Chemical Warfare.
20. William J. Broad	:	Germs: Biological Weapons and America's Secret War
21. Curt Wachtel &Fritz Haber	:	Chemical Warfare.
22. Donald A Cameron		Chemical Warfare: Poison Gas in the Coming War.
23. Jonathan B. Tucker		War of Nerves Chemical Warfare from World War I to Al-Qaida
24. Paul R. Ziaya	:	Biological and Chemical-Warfare.

United States and Biological-Warfare.

Note: - Any other Books and Journals may be prescribed to enrich the Standard of Performance in the items Listed above under Theory Paper.

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25. Stephen Endicott and Edward Hagerman

Military Science

M.A. / M.Sc. [Previous]

SEMESTER-II

Practical Work [Part B]

Marks -50

CARTOGRAPH:

- To find out North & Types of North.
- Bearings and its Inter Conversion.
- Representation of Relief and Section Drawing.
- Map Projection:
 - a. Conical with one and two Standard Parallels Projection.
 - b. Bones Projection.
 - c. Poly-Conic Projection.
 - d. Mercator Projection.
 - e. Zenithal Equal Distance and Zenithal Equal Area Map Projections.

OR

REMOTE SENSING:

- Cultural detail Map from Land sat Imagery.
- Study of Land sat Imagery.
- Study of Additive and subtractive Colour Principles.
- SPOTTING: Spotting of Various Types of Aircraft and Ship Models. B.
- GROUP DISCUSSION: Conduct of Group Discussion with reference to the Syllabus of the II Sem. C.

Note: Group Discussion will be gone through in the Periods allotted on topic of the syllabus but at the time of the Practical Examination one of the given four from the syllabus be selected for the purpose of assessment by the External and Internal Examiners.

Lecturing on Current Topic. D.

Books Recommended:-

Prayogatmak Sainya Vigyan Vol-1. Prayogatmak Sainya Vigyan. Narendra Singh Brig. Rajendra Singh Map Reading. Prayogatmak Sainya Vigyan. J.M. Srivastava

Balwant Singh Map Reading. Tanks Map and Survey Map Projections Steers Map and Map Work.

Bygott General Cartography. Raize Surveying.

10 Thomas Surveying & Leveling Vol-1. Kanetkar Andrew Bayed , 12. Andrew Bayed

Atlas of World Affairs For Spotting Summary. Manual of Map Reading, Air Photo Reading and Field Sketching Part I, II & III. H.M.S. London

15. N.P. Ayyar Sarvekshan

Note: -Any other Books and Journals may be prescribed to enrich the Standard of Performance in the items Listed above under Practical Paper.

Military Science

M.A. / M.Sc. [Final]

SEMESTER - IV

PAPER - I [Part B]

Military History of India

Marks -85

Unit - 1.

- 1. Central Asian Campaign of Shahjahan and the Battle of Delhi or Talkotra (28 March-1737 A.D.) and the Causes of the decline of Mughal Military System.
- 2. Military Organization / System of Marathas under Shivaji.
- 3. Shivaji's technique of fighting with special reference to the Siege of Surat.

Unit - 2.

- 1. Military System of Marathas after Shivaji.
- 2. The Third Battle of Panipat (14 January-1761).
- 3. The Battle of Assai (1803), Anglo-Maratha Wars (1805-1818) and Casus of the decline of Maratha Military System.

Capit - 3.

- 1. Sikh Military System of Guru Govind Singh & Military Organization of Sikh under Maharaja Ranjeet Singh.
- 2 Anglo-Sikh Wars (1845-1846 to 1848-1849 A.D.).
- 3. Causes of the decline of Sikh Military System.

Unit - 4.

- 1. The Battle of Plassey (23 June-1757).
- 2. The Battle of Baxar (22 Oct.-1764).
- 3. The Military Organization of East India Company.

Unit - 5.

- 1. India's first Liberation-Movement for Independence (1857 A.D.) Causes of the Liberation-Movement & the Causes of the failure of Liberation-Movement.
- 2. Reorganization and reforms of the Army in India under the British Crown.
- 3. Indianisation of the Indian Armed Forces after Independence.

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Continue......Military History of India (SEMESTER-IV)

Books Recommended:-

25. S. T. Das

1.	Dr. P.C. Chakravarty	:	The art of war in Ancient India.
2.	Prof. A.R. Dikahitar	:	War in Ancient India.
3.	Dr. S.R. Singh	:	Ancient India Warfare.
4.	B.K. Majumdar	:	Military System of the Marathas.
5.	B.K. Majumdar	:	Indian Military system in Ancient India.
6.	Sir. J.N. Shankar	:	Fall of the Mughal Empire Vol. I & II.
7.	Sir. J.N. Shankar	:	Military History of India.
8.	J.F.C. Fuller	:	Alexander the Great.
9.	Gautam Sharma	:	Indian Army through the Ages.
10.	R.C. Kulshrestha	:	An Introduction to Dhanurveda.
11.	R.C. Kulshrestha	:	Kautilya's Philosophy of War.
12.	P. Sen. Sharma	:	Kurukshetra War.
13.	Sarva Daman Singh	:	Ancient Indian Warfare with special reference to Vedic period.
14.	W. Irvine	:	The Army of Indian Mughal.
15.	S.N. Sen.	:	Victory System of Marathas.
16.	Gulcharan Singh	:	Battles of Panipat.
17.	Alfred Devid	:	Indian Art of War.
18.	I.H. Quereshi	:	Administration of Sultanate.
19.	Col. Melleson	;	Decisive Battles of India.
20.	R.D. Palsokar	:	Shivaji the Great Guerrilla.
21.	R.D. Palsokar	:	Study of Generalship.
22.	Karr	:	Military History of India.
23.	Subramniyam	:	Indian Military History.
24.	K.M.L. Saxena	:	The Military System of India.

Note: - Any other Books and Journals may be prescribed to enrich the Standard of Performance in the items Listed above under Theory Paper.

Indian Military.