

1

**DAVI AHILYA UNIVERSITY, INDORE [M.P.]**

**SCHEME OF EXAMINATION**

**Military Science**

**B.A. / B.Sc.**

**Year 2016-2017 Onwards**

There shall be **One Theory Paper** of each Semester Carrying **85 Marks** in each Semester.  
A Candidate shall be required to do **Practical** of **50 Marks** in each Semester.  
Each Paper Carrying **100 Marks** Comprising **85 Marks** for Theory Paper and **15 Marks** for C.C.E. and in the 6<sup>th</sup> Semester there will be **Project-Work** of **100 Marks**.

**B.A. / B.Sc. – FIRST YEAR**

**SEMESTER – 1**

Name of the Paper: - Evolution of Indian Art and Science of Warfare

C.C.E.

Practical Work

**SEMESTER – 2**

Name of the Paper: - Evolution of Western Art and Science of Warfare

C.C.E.

Practical Work

**B.A. / B.Sc. – SECOND YEAR**

**SEMESTER – 3**

Name of the Paper: - Military Psychology

C.C.E.

Practical Work

**SEMESTER – 4**

Name of the Paper: - Study of War

C.C.E.

Practical Work

**B.A. / B.Sc. – THIRD YEAR**

**SEMESTER – 5**

Name of the Paper: - National Security

C.C.E.

Practical Work

**SEMESTER – 6**

Name of the Paper: - Study of Military Campaigns

C.C.E.

Practical Work

Project

**NOTE:** - The Course of each SEMESTER has been divided into FIVE unites,  
There will be internal Choice in each Unit.

*[Handwritten Signature]*

*[Handwritten Signature]*  
06/05/2016

*[Handwritten Signature]*

**DAVI AHILYA UNIVERSITY, INDORE [M.P.]**

**Military Science**

B.A. / B.Sc. Part One

**SEMESTER – 1**

**Evolution of Indian Art and Science of Warfare**

Marks- 85

**Unit – 1.**

1. Greek military system of Alexander the Great.
2. The Battle of Hydaspes (326 B.C.).
3. Mauryan military system.
4. Kautilya's Philosophy of war.

**Unit – 2.**

1. Rajput military system.
2. The Second Battle of Tarain (1192 A.D.).
3. Mughal military system.
4. The First Battle of Panipat (1526 A.D.).

**Unit – 3.**

1. Maratha military system under Shivaji.
2. The Third Battle of Panipat (1761 A.D.).
3. Sikh military system under Maharaja Ranjeet Singh.
4. The Battle of Sobraon (1846 A.D.).

**Unit – 4.**

1. Military system of East India Company.
2. The Battle of Plassey (1757 A.D.).
3. The Battle of Assaye (1803 A.D.).
4. Causes of First war of Indian Libration (Independence) Movement of 1857 A.D.
5. Reorganizations of the Indian Army under the British Crown.

**Unit – 5.**

1. Pak invention of Kashmir (1947-48 A.D.).
2. **India–China war – 1962** – Causes & Lessons (strategical, Tactical & Political).
3. **India–Pak war – 1965** – Causes & Lessons (strategical, Tactical & Political).
4. **India–Pak war – 1971** – Causes & Lessons (strategical, Tactical & Political).
5. Pakistan's Proxy war against India.
6. Kargil war - 1999 & Lessons for the Future.

**Reference Books -**

1. Fortesque	:	History of British.
2. Maj. Gen. J.F.C. Fuller	:	Red Coat to Alive Green.
3. Maj. Alfred David	:	Bhartiya Yuddh – Kala (Hindi).
4. B.R.Panday & N.D.Chaubey	:	Sainya Adhyayan (Hindi).
5. B.N.Maliwal	:	Sainya Vigyan "Part-1&2" (Hindi).
6. Rajendra Prasad & R.N.Singh	:	Bhartiya Sainya Itihas ki Roop-Rekha "Bhag-1" (Hindi).
7. S.K.Mishra	:	Bhartiya Sainya Itihas (Hindi).
8. S.K.Mishra	:	Sansar ke Prasiddha Yuddh (Hindi).
9. Karr	:	Military History of India.

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

*[Handwritten Signature]*

*[Handwritten Signature]*  
06/05/2016

*[Handwritten Signature]*

**DAVI AHILYA UNIVERSITY, INDORE [M.P.]**

**Military Science**

B.A. / B.Sc. Part One

**SEMESTER – 1**

**PRACTICAL – WORK**

Marks- 50




**MAP READING**

1. Map Reading and Exercise on Survey Sheets.
2. Exercise on Grid System including British Modified Grid System and Exercise on Map Reference.
3. Exercise on Scales.
4. Exercise on the Conventional Signs (Geographical and Military).
5. Service Liquid Prismatic Compass Mark-III A and Service Protractor.
6. Exercise on Index to Sheet No.

**Reference Books -**

1. B.N. Maliwal : Prayogatmak Sainya Vigyan Vol-1.
2. Narendra Singh : Prayogatmak Sainya Vigyan.
3. Brig. Rajendra Singh : Map Reading.
4. J.M.Srivastava : Prayogatmak Sainya Vigyan.
5. Balwant Singh : Map Reading.

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

  
  
06/05/2016  


4

# DAVI AHILYA UNIVERSITY, INDORE [M.P.]

## Military Science

B.A. / B.Sc. Part One

SEMESTER - 2

### Evolution of Western Art and Science of Warfare

Marks- 85

#### Unit - 1.

Military System of Greeks & Roman with reference to --

1. The Battle of Arbelá (331 B.C.).
2. The Battle of Cannae (216 B.C.).
3. The Battle of Zama (202 B.C.).
4. Emergence of Cavalry with Special reference to the Battle of Adrianople (9 August, 378 A.D.).

#### Unit - 2.

1. Mounted Archers and the Battle of Hastings (1066 A.D.).
2. Cavalry Tactics of Zenghis Khan.
3. Re-Emergence of Infantry & Decline of Armoured Cavalry.
4. The Battle of Crecy (1346 A.D.).

#### Unit - 3.

1. Impact of Science & Technology on warfare.
2. Military Reforms of Gustavus Adolphus & Fredrick the Great.
3. The Revolution in Tactics and Napoleonic Art of Warfare.
4. Clausewitz & Jomini.

#### Unit - 4.

1. Brief Coverage of the Rise of Professional Armies & Navies with reference to the wars in the 19th Centure A.D.
2. American Civil war (1861 -1865) Military Organization and Policies of the Powers on the Eve of the war.
3. First World War - Causes, Strategy, Tactics and the Role of the Air Force with reference to the Theory of Douhet.
4. First World War - Role of the Navy with reference to the Theory of Mahan.

#### Unit - 5.

1. Causes, Military Organization and Policy of Contesting Powers in the Second World War, Allied & Axis Objectives and Strategy.
2. Second World War -Armoured and mechanized warfare with reference to the Theories of J.F.C. Fuller and B.H.Liddell Hart as cited by Guderian and Rommell.
3. Second World War -Role of Air Power and weapons, Doctrines and Tactics with examples.
4. Second World War -Role of Naval Power and weapons, Doctrines and Tactics with examples.
5. Use of Atom Bomb and its impacts.

#### Reference Books -

- |                      |   |                           |
|----------------------|---|---------------------------|
| 1. Lallan ji Singh   | : | Pashchatya Sainya Itihas. |
| 2. J.M.Srivastava    | : | Pashchatya Sainya Itihas. |
| 3. Ashok Kumar Singh | : | Vishva ka Sainya Itihas.  |
| 4. S.K.Mishra        | : | Sansar ka Sainya Itihas.  |
| 5. J.F.C.Fuller      | : | Armament and History.     |

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

*[Signature]*

*[Signature]*  
06/05/2016

*[Signature]*

5

**DAVI AHILYA UNIVERSITY, INDORE [M.P.]**

**Military Science**

B.A. / B.Sc. Part One

**SEMESTER – 2**

**PRACTICAL – WORK**

Marks- 50

**MAP READING**

1. Exercise on Finding the North (True, Magnetic and Grid).
2. Exercise on Bearings and inter-conversion of Bearings.
3. Exercise on Resection.
4. Exercise on Inter - Section.
5. Counter Lines and its Study.

**Reference Books -**

1. B.N. Maliwal : Prayogatmak Sainya Vigyan Vol-1.
2. Narendra Singh : Prayogatmak Sainya Vigyan.
3. Brig. Rajendra Singh : Map Reading.
4. J.M.Srivastava : Prayogatmak Sainya Vigyan.
5. Balwant Singh : Map Reading

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

*[Signature]*

*[Signature]*  
06/05/2016

*[Signature]*

DAVI AHILYA UNIVERSITY, INDORE [M.P.]

Military Science

B.A. / B.Sc. Part Two

SEMESTER - 3

Military Psychology

Marks- 85

Unit - 1.

- 1. Military Psychology: Meaning and Definitions.
- 2. Relevance of military Psychology to the Defence Problems.
- 3. Elements of military Psychology.

Unit - 2.

- 1. Moral: Definitions, Elements, Role, Importance of Moral during war and peace.
- 2. Discipline: Definitions, Aim, Importance, Types, Development and Methods of maintenance.
- 3. Espirit-de-Corps: Definitions, Elements, Role, Importance, Espirit-de-Corps and Fighting Spirits, methods, for Development.
- 4. Man-Management: Definitions, Meaning, Aim, Importance and Elements of Efficient Man-Management.

Unit - 3.

- 1. Military Leadership: Definitions, Qualities of Leadership and Classification of Leaders.
- 2. Qualities of Good Soldier.
- 3. Fear: Definitions, Meaning, Characteristics, Types, Reasons and Methods to Overcome Fear.
- 4. Courage: Meaning, Importance, Types and Effecting Elements.

Unit - 4.

- 1. Psychological warfare: Procedure, Methods and Types.
- 2. Propaganda: Role, Importance, Elements and Types of Propaganda.
- 3. Rumors: Nature, Techniques, Classification, Role during war and Controlling Measures.
- 4. Brain Washing: Methods or Techniques and Treatment.


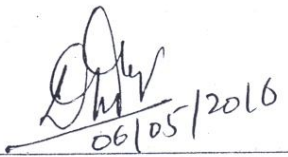

Unit - 5.

- 1. Information war/Cyber war: Definitions, Importance and Elements.
- 2. Mental Health Problems: Causes of Mental Health Problems during war and peace, identification (Recognition) and Treatment.
- 3. Major Mental Diseases: Phobia, Anxiety and Collective Anxiety, Hysteria and War Conversion Hysteria, Neurosis and War Neurosis.

Reference Books -

1. Dr. Pandey	:	Essentials of War & Peace.
2. Gerald I.	:	Defence Psychology.
3. E.G. Boring	:	Psychology for the Armed Services.
4. Pokorovsky	:	Science & Technology in Contemporary War.
5. Parsuram Gupt	:	Sainya Manovigyan.
6. Smt. Pushpa Jain	:	Sainya Manovigyan.
7. K.N. Shrivastava & J.M. Shrivastava	:	Sainya Manovigyan.
8. F.G. Bartlatt	:	Psychology and the Soldier.

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

**DAVI AHILYA UNIVERSITY, INDORE [M.P.]**

**Military Science**

B.A. / B.Sc. Part Two

**SEMESTER – 3**

**PRACTICAL – WORK**

Marks- 50

**A.**

1. Section Formations.
2. Platoon Formations.
3. Scouts.
4. Sentries.
5. Individual Stocking.
6. Cover, Camouflage and Concealment.
7. Degree of Slope & Gradient.

**B. REMOTE – SENSING**

1. Oblique and Vertical Air – Photographs.
2. Correlation with Maps.
3. Interpretation.
4. Military Intelligence from Air Photos.

**OR**

**PSYCHOLOGICAL TESTS**

1. Koh's Block Desine Test / Alexander Pass along Test.
2. Preservation.
3. Mental Fatigue.

**A. SPOTTING**

1. Recognition of Various Air Craft Models used by Indian Air Force.
2. Recognition of Various Naval Ship Models used by Indian Navy.

**B. Group Discussion on Current Topics.**

**Reference Books -**

1. B.N. Maliwal	:	Prayogatmak Sainya Vigyan Vol. -1
2. Narendra Singh	:	Prayogatmak Sainya Vigyan.
3. Brig. Rajendra Singh	:	Map Reading.
4. J.M. Shrivastava	:	Prayogik Sainya Vigyan.
5. Makhija	:	Experimental Psychology.
6. Agrawal & Asthana	:	Manovigyan avam Shiksha me Mapan or Prikshan.
7. Choudhary Narendra Singh	:	Prayogatmak Sthal Yuddhkala (Hindi).

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

*[Handwritten Signature]*

*[Handwritten Signature]*  
06/05/2016

*[Handwritten Signature]*

8

**DAVI AHILYA UNIVERSITY, INDORE [M.P.]**

**Military Science**

B.A. / B.Sc. Part Two

**SEMESTER – 4**

**Study of War**

Marks- 85

**Unit – 1.**

1. War: Definitions, Concept, Scope, Types, Advantages and Disadvantages.
2. Modern warfare: Concept, Definitions, Features.
3. Chemical warfare: Concept, Historical Development, Principles Methods, Types of Chemical Agents and their effects and Methods for Protection.
4. Biological warfare: Concept, Historical Development, Principles Methods, Types of Biological Agents and their effects and Methods for Protection.

**Unit – 2.**

1. Nuclear warfare: Concept, Historical Development, Principles and their effects.
2. Cold war: Concept, Historical Development, Psychological, Economical and Political Warfare as an Instrument of cold War.
3. Guerrilla warfare: Definitions, Principles, Strategic, Tactics and Elements of Successful Guerrilla warfare and Methods of Counter Guerrilla Warfare.
4. War as an Instrument of State Policy.

**Unit – 3.**

1. Principles of war: Concept and Importance.
2. Principles of war: Selection and Maintenance of the Aim, Offensive Action, Concentration of the Forces, Surprise, Co-Operation.
3. Principles of war : Economy of Forces & Efforts, Security, Mobility, Administration, Moral.

**Unit – 4.**

1. Strands Of war: Permanent & Changeable.
2. Strategy: Definitions, Elements, Types and Strategy the Indirect Approach.
3. Tactics: Definitions, Elements, Types and Five "F".
4. Tactics: Tactics during the 20<sup>th</sup> Century.

**Unit – 5.**

1. Importance of Science and Technology in War.
2. Electronic warfare: Definitions, Elements, Types, Methods, Role and Importance in Modern Age.
3. Cycle of warfare.
4. Space warfare.

**Reference Books -**

- |                    |   |   |
|--------------------|---|---|
| 1. Halperin Morton | : | Contemporary Military Strategy.             |
| 2. B. Bordia       | : | Strategy in the Missile Age.                |
| 3. Pokorovsky      | : | Science and Technology in Contemporary War. |
| 4. Kank Klaus      | : | Science and Defense.                        |
| 5. Liddell Hard    | : | Strategy the Indirect Approach.             |

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

*[Signature]*  
06/05/2016

*[Signature]*

*[Signature]*



**DAVI AHILYA UNIVERSITY, INDORE [M.P.]**

**Military Science**

B.A. / B.Sc. Part Two

**SEMESTER – 4**

**PRACTICAL – WORK**

Marks- 50

**A.**

1. Battalion Organization.
2. Battalion Weapons :  
[Rifle -303, SLR -7.62 mm, INSAS -5.56 mm, LMG, MMG, Revolver / Pistol, 2" Mortar, 3" Mortar, Rocket Launcher, High Explosive Grenade No.-36 ].
3. Ambushing.
4. Section in Attack & Defence.
5. Platoon in Attack & Defence.

**B.**

**REMOTE – SENSING**

1. Study of given Area in B/W, Infra-Red colour and Infra-Red colour Photographs.
2. Study of Multi-Spectral Photographs using Additive colour viewer.
3. Study of Satellite imagery.

**OR**

**PSYCHOLOGICAL TESTS**

1. Intelligence Performance Test.
2. Span of Attention.
3. Alexander Pass along Test.

**A.**

**SPOTTING**

1. Recognition of Ship and Tank Models.

**B.**

**Group Discussion on Current Topics.**

**Reference Books -**

1. B.N. Maliwal	:	Prayogatmak Sainya Vigyan Vol. -1.
2. Narendra Singh	:	Prayogatmak Sainya Vigyan.
3. Brig. Rajendra Singh	:	Map Reading.
4. J.M. Shrivastava	:	Prayogik Sainya Vigyan.
5. Makhija	:	Experimental Psychology.
6. Agrawal & Asthana	:	Manovigyan avam Shiksha me Mapan or Prikshan.
7. Choudhary Narendra Singh	:	Prayogatmak Sthal Yuddhkala (Hindi).

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

*[Signature]*  
06/05/2016

*[Signature]*  
*[Signature]*

**DAVI AHILYA UNIVERSITY, INDORE [M.P.]**

**Military Science**

B.A. / B.Sc. Part Three

**SEMESTER – 5**

**National Security**

Marks- 85

**Unit – 1.**

1. National Security: Definitions, Concept and Elements.
2. National Interest.
3. National Power: Meaning, Definitions, Concept and Elements.
4. Nation State: Concept, Principle, Elements.

**Unit – 2.**

1. Balance of Power: Meaning, Types, Methods and Utility.
2. Collective Security: Meaning, Concept and Basic Principles.
3. Regional Defense: Military Organization after Second World War.
4. Non-Alignment Movement: Meaning, Concept, Utility in the Present Contest.

**Unit – 3.**

1. Deterrence: Concept, Elements, Types, Role of Nuclear Power States.
2. An Evaluation of India's Nuclear Power: Absolute Character of Power, Permanent Character of Power, Unreliability of Single Factor, Geo-Politics, Nationality and Militarism.
3. India in the World Strategic Environment.
4. Indian National Strategy to meet Security Threats [Internal & External].

**Unit – 4.**

1. Geo-Strategical Location of India.
2. Foreign Policy of India and National Security.
3. **Internal Threats:** Political, Economical and Defense factors with Pollistan & Threat Preparation.
4. **External Threats:** Political, Economical and Defence factors with Neighbors.

**Unit – 5.**

1. Relations with other immediate Neighbors.
2. India's Special Position in Indian Ocean and Security.
3. **Insurgency & Counter Insurgency:** Meaning, Elements and Character.
4. India's Nuclear Policy and Development.

**Reference Books -**

1. H.J. Morgenthau	:	Politics among the Nations.
2. B. Prada	:	India's Foreign Policy Legacy.
3. L.J. Kavie	:	India's Quest for Peace.
4. R. Singh	:	Politics of Indian Ocean.
5. A.G. Nooron	:	India's Foreign Policy.
6. J. Bandopadhyaya	:	Making for Foreign Policy.
7. Dr. Harveer Sharma	:	Rashtriya Pratiraksha (Hindi).
8. B.R. Pandey & R.S. Pandey	:	Yuddh or Shanti ke Mool Tatva (Hindi).

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

*[Handwritten Signature]*  
 06/05/2016  
*[Handwritten Signature]*  
*[Handwritten Signature]*

**DAVI AHILYA UNIVERSITY, INDORE [M.P.]**

**Military Science**

B.A. / B.Sc. Part Three

**SEMESTER – 5**

**PRACTICAL – WORK**

Marks- 50

**Tactical Exercises with without Troops in which a Candidate is Act as a coy. Commander**

1. Field Craft.
2. Study of Ground.
3. Description of Ground.
4. Judging Distance.
5. Recognition and indication of Targets.
6. Fire Orders.

**Reference Books -**

- |                             |   |                                     |
|-----------------------------|---|-------------------------------------|
| 1. B.N. Maliwal             | : | Prayogtmak Sainya Vigyan Vol. -2.   |
| 2. Narendra Singh           | : | Prayogtmak Sainya Vigyan Vol. -2.   |
| 3. Brig. Rajendra Singh     | : | Map Reading.                        |
| 4. J.M. Shrivastava         | : | Prayogik Sainya Vigyan Vol. -2.     |
| 5. Choudhary Narendra Singh | : | Prayogtmak Sthal Yuddhkala (Hindi). |

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

*[Handwritten Signature]*  
 06/05/2016  
*[Handwritten Signature]*

*[Handwritten Signature]*

DAVI AHILYA UNIVERSITY, INDORE [M.P.]

Military Science

B.A. / B.Sc. Part Three

SEMESTER - 6

Study of Military Campaigns

Marks- 85

Unit - 1. NORTH AFRICAN CAMPAIGN:

- 1. Military History and Allied Geography of North African Campaign 1941-1943.
2. Strategical Background of North African Campaign.
3. The Battle of Siddi Barrani.
4. The Battle of Siddi Rezagh.

Unit - 2.

- 1. The Battle of Gazala.
2. The Battle of Alam-Halfa.
3. The Battle of El-Alamein.
4. The Battle of Mareth-Line.

Unit - 3. ARAB-ISRALE WAR:

- 1. Historical Background of Arab-Israles war-1956.
2. Geo-Strategical Importance of Arab-Israles war-1956.
3. Causes of Arab-Israles war-1956.

Unit - 4.

- 1. The Battle of Milt-Pass.
2. The Battle of Abu-Aghila.
3. The Battle of Refah.
4. The Causes of Arab Defeat and Lesson.

Unit - 5.

- 1. Historical Background of Arab-Israles war-1967.
2. Historical Background of Arab-Israles war-1973.
3. Naval and Air war of Egypt and Israles-1973.
4. Causes of Arab Defeat in Arab-Israles war-1967 & 1973 and Lesson.

Reference Books -

1. Om Nagpal : Arab-Israles Yuddh.
2. Gyanchandra Shrivastava : Pratham or Dwitiya Wishva Yuddh ke Sangram.
3. A. Bran. (ed) : The Middle East, Arab-Israles war-1967.
4. D. Banerjee & A.A. Athale : Arab-Israles wars-1967 & 1973.
5. Sasd El Shly : Arab-Israles Military Operations.
6. Martin Gilbert : Arab-Israles Conflicts.
7. J.F.C. Fuller : Decisive Battles of the Western World Vol-3.
8. J.F.C. Fuller : Military History of Western World.
9. R.P. Yadav : Arab- Israles Yuddh: Sankalp - Vikalp. (Hindi).
10. Capt. B.N. Maliwal : Sthal Yuddh Kala Part I & II. (Hindi)
11. Lallan ji Singh : Yuddh Ka Addhyayan avam Uttari Africa Ke Sangram. (Hindi).

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

Signature and date 06/05/2016

Signature

Signature

**DAVI AHILYA UNIVERSITY, INDORE [M.P.]**

**Military Science**

B.A. / B.Sc. Part Three

**SEMESTER – 6**

**PRACTICAL – WORK**

Marks -50

Tactical Exercises with without Troops in which a Candidate is Act as a Coy. Commander:

1. Field Signals.
2. Patrols.
3. Verbal Order.
4. Message Writing.
5. Military Appreciation of a Situation.
6. Battle Procedure.

**Reference Books -**

- |                             |   |                                      |
|-----------------------------|---|--------------------------------------|
| 1. Col. Velention           | : | Sand Table Exercises.                |
| 2. Maj. R. Kumar            | : | Hand Book of Military Science.       |
| 3. Capt. M.P. Varma         | : | Prayogatmak Sthal Yuddhkala (Hindi). |
| 4. Dr. F.R. Khan            | : | Prayogik Sainya Vigyan. (Hindi).     |
| 5. Choudhary Narendra Singh | : | Prayogatmak Sthal Yuddhkala (Hindi). |

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

*[Signature]*  
06/05/2016

*[Signature]*

*[Signature]*