## **DEFENCE STUDIES**

## **B.A.-II: IIIrd Semester (Theory)**

## Paper-III (Theory) - WORLD MILITARY HISTORY (MODERN)

Max.Marks Time 60 3 Hrs.
Internal Assessment: 10

- 1. Industrial Revolution and its Impact on Military Power.
- 2. American Civil War (1862-65):
  - a) Introduction
  - b) Causes
  - c) Main Events (in brief)
  - d) Effects on warfare
- 3. Russo-Japanese War (1904-1905):
  - a) Introduction
  - b) Causes
  - c) Events (in Brief)
  - d) Political Consequences
- 4. World War 1<sup>st</sup> and its Origin:
  - a) Causes of the World War-I
  - b) Trench warfare and Armour with special reference to the battle of Somme.
  - c) Naval Warfare; (i) Element of Sea Power, (ii) Naval Strategy and Tactics during world War-1.
  - d) Air Warfare
    - i) Birth and concept of Air Power and its development
    - ii) Role of Air Craft during World War-1
  - 5. Second World War:
    - a) Causes and Origin of World War-II.
    - b) Armoured Warfare; Concepts of J.F.C.Fuller, Guderian and Liddell Hart.
    - c) Air Warfare: Concepts of Douhet, Mitchell.
    - d) Sea Power; Contribution of A.T.Mahan on Naval Warfare.
  - 6. Nuclear Warfare:
    - i) Beginning of Nuclear Era.

- ii) Main destructive effects of nuclear energy. Flash, heat, thermal radiation, blast and nuclear radiation.
- iii) Theories of Nuclear Warfare: Deterrence and Massive Retaliation.

## Note:

- 1. There will be one paper of 60 marks and one paper of practical having 30 marks (Semester wise).
- 2. Examiner should set atleast 10 questions including one compulsory (Multiple choice) objective type question, covering the entire Syllabus. Candidates are required to attempt any 5 questions including Compulsory question (Semester wise).
- 3. The candidates are required to pass separately both in theory and Practical papers. (Semester wise).

- 1. Quincy Wright : A Study of War.
- 2. J.F.C.Fuller: Armament and History.
- 3. J.F.C.Fller: The Conduct of War.
- 4. E.M.Earle: Makers of Modern Strategy.
- 5. J.F.C.Fuller: The American Civil War, 1861-65.
- 6. Monotogomry: History of Warfare.
- 7. Indu Prakash: Science of War.
- 8. D.K.Palit: War in Deterent Age.
- 9. D.K.Palit: Essentials of Military Knowledge.
- 10. K.S.Tripathi: Evolution of Nuclear Strategy.

# DEFENCE STUDIES B.A.-II: IIIrd Semester (Practical)

Paper-III- PRACTICAL (MAP READING-1) Max.Marks : 30

Time : 3 Hrs.

Practical Test : 20 Marks
Practical Record : 05 Marks
Viva-Voce : 05 Marks

- 1. SCALE: Construction of Time Scale and Diagonal Scale.
- 2. Bearing and Inter-Conversion of Bearing with I.C.E.
- Finding Positions on the Gridded Map by Intersection Method and Resection Method.
- 4. Relief Features and their representation on the Map.
- Types of slope and their representation on the Map by CONTOUR Lines.
- 6. Project Report.
- 7. Educational Tour.

Note: Above mentioned exercises should be carried out on Topo- Sheets.

- 1. 'SAMRIK MANCHITRA PATHAN' (Hindi)): Professor Hazari Lal: (1979) Part-1 and Part-II: Publisher: Shamrik Prakashan Kendra, 2/119, Shyam Nagar, ALIGARH (U.P).
- 2. PRAKRIYATMAK SAINYA VIGYAN (Hindi) Part-1 and Part-II, By B.N.MALIWAL; (1968) EBD Publishing and Distributing Company 144, Rajpur Road, Dehradoon. OR Latest-Publisher of this Book is: Chandra Prakash and Brother, Kothi Road, HAPUR, Distt. Ghaziabad (UP).
- 3. Military Map Reading by Gale and Polden.
- 4. Sainik Manchitra Vigyan: M.P. Verma, Aligarh (UP).

## **DEFENCE STUDIES**

## **B.A.-II: IVth Semester (Theory)**

Max. Marks Time

60 3 Hrs

Internal Assessment: 10

## **PAPER-IV- STUDY OF WAR (Theory)**

- 1. Nature of War:
  - a) Definition, Scope, Advantages and Disadvantages.

Evolution of War:

Feudal, Dynastic, Peoples, Total and Nuclear Wars.

Cold War: Definition, Concept and Types.

Guerrilla War.

Features of Modern War.

Future of War.

- 2. Principles of War.
- 3. Strategy Tactics:

Various definition, distinction, between Strategy Tactics and Grand Strategy Evolution of Tactics during 19<sup>th</sup> and 20<sup>th</sup> Century evolution of Strategy during 19<sup>th</sup> and 20<sup>th</sup> Century. Strategy of Indirect-Approach-Strategy of Annihilation and Strategy of Exhaustion.

- 4. Indo Pak War -1947-48 (Kashmir Problem).
- 5. Indo-China War 1962.
- 6. Indo-Pak War 1965 and 1971 A.D. with reference to the following:
  - i) Cases of War.
  - ii) Study of War in Outline.
  - iii) Political and Military Lessons Learnt.
- 7. Origin and Causes of World War-1.
- 8. Origin and Causes of World War-II.

#### Note:

- 1. There will be one paper of 60 marks and one paper of practical having 30 marks (Semester wise).
- 2. Examiner should set atleast 10 questions including one compulsory

- (Multiple choice) objective type question, covering the entire Syllabus. Candidates are required to attempt any 5 questions including Compulsory question (Semester wise).
- 3. The candidates are required to pass separately both in theory and Practical papers. (Semester wise).

- 1. Essentials of Military Knowledge; Maj.Gen. Palit.
- 2. Nature of Modern War: Cyril Falls.
- 3. Samrik Sidhant : M.P. Verma.
- 4. The Art of Land Warfare: B.N.Maliwal.
- 5. India Wins the War: S.N.Rampal.
- 6. An Introduction of the Art of War; S.T.Das.
- 7. The Study of Indirect Approach: Liddle Hart.
- 8. Yoddh Mimansa by Prof. M.C.Maheshwari.
- 9. The Study of Military History: Shappered.

## **DEFENCE STUDIES**

## **B.A. II: IVth Semester (Practical)**

Paper- PRACTICAL (MAP READING-1I) Max.Marks : 30

Time : 3 Hrs.

Practical Test : 20 Marks
Practical Record : 05 Marks
Viva-Voce : 05 Marks

- 1. Gradient and Slope in Degees.
- 2. To determine Inter-visibility between two points: Gradient Method, Sum Proportion Method and Section Drawing Method.
- 3. To draw a Field Sketch from a given route Report.
- 4. Enlargement and Reduction of Maps.
- 5. To prepare a Route Report from a given narrative data.
- 6. Project Report.
- 7. Educational Tour.

Note: Above mentioned exercises should be carried out on Topo- Sheets.

- 1. 'SAMRIK MANCHITRA PATHAN' (Hindi)): Professor Hazari Lal: (1979)
  Part-1 and Part-II: Publisher: Shamrik Prakashan Kendra, 2/119, Shyam
  Nagar, ALIGARH (U.P).
- 2. PRAKRIYATMAK SAINYA VIGYAN (Hindi) Part-1 and Part-II, By B.N.MALIWAL; (1968) EBD Publishing and Distributing Company 144, Rajpur Road, Dehradoon. OR Latest-Publisher of this Book is: Chandra Prakash and Brother, Kothi Road, HAPUR, Distt. Ghaziabad (UP).
- 3. Military Map Reading by Gale and Polden.
- 4. Sainik Manchitra Vigyan : M.P. Verma, Aligarh (UP).

## **B.A.-1** (2<sup>nd</sup> Semester)

Paper-1: Theory

## **Option-II- MILITARY PSYCHOLOGY-1I**

M.M.: 60 Time: 3 Hrs.

1. Aptitude and Morale:

Factors influencing Morale, Maintenance of Morale during War and Peace.

2. Tools of Psychological Warfare:

Brain Washing.

Rumour.

Technique of Propaganda.

Indoctrination and Coercive persuation.

- 3. Military Leadership: Traits, Types and Qualities.
- 4. Discipline and Man-Management.
- 5. Mental Hygiene.

- 1. Raj Narain: 'Military Psychology'; Bhargva Book Depot, Agra.
- 2. E.G.Boring: Psychology of Armed Forces-English Book Depot, 15 Rajpur Road, Dehradoon. (Uttarakhand).
- 3. Psychology for Fighting Man-Maj. Hasnain-EBD, Dehradoon.
- 4. Psychology and the Soldier- Bartleft.
- 5. Psychology and the Solider- N.Copeland.
- 6. Line Barger: Psychological Warfare.
- 7. Sprott-Social Psychology.
- 8. Dr.N.P.Tiwari: Military Psychology: 2005, Chandra Prakash & Company, Hapur- Distt.Ghaziabad (UP).
- 9. Smt.Pushpa Jain: 'Sainik Manovigyan' 1975-76; Gyan Mandal Prakashan, Patanpar Bazar, Gwalior-1 (M.P.).
- 10. Psychology, Understanding Human Behaviour: Sartain and others.

## B.A.-I (2<sup>nd</sup> Semester)

## Paper-II-PRACTICAL (MAP READING-II)

M.M.: 30 Time: 3 Hrs.

Practical Test : 20 Marks
Practical Record : 5 Marks
Viva Voce : 5 Marks

1. NORTH: 'Types of North' and finding out True North Direction by equal Altitude Method, Watch Method, Compass Method etc.

- 2. Bearing and Inter-conversions of Bearings in detail.
- 3. Liquid Prismatic Compass: functions of its various parts, and the following exercises on the Prismatic Compass:

To determine magnetic North by Compass.

Setting the MAP by Compass.

To find out the bearing of a point from other point situated on the ground.

To determine own's and enemy's position on the MAP by Re-section and Intersection methods with the help of compass.

To set the compass in a particular direction for night march.

- 4. Determination of Individual Compass Error (ICE).
- 5. Service Protractor: Its types and uses.

Note: 1. Practical exercise should be carried out on TOPO SHEETS.

- 2. Candidate will submit a Project Report
- 3. Educational Tour

- 1. Military Map Reading by Gale and Polden.
- 2. 'Samrik Manchitra Pathan' (Hindi) Professor-Hazari Lal.
- 3. 'Prakriyatmak Sanya Vigyan' (Hindi): Vol.-1 & II by B.N.Maliwal.
- 4. 'Sainik Manchitra Vigyan' M.P. Verma.

## B.A.-I (2<sup>nd</sup> Semester)

# Paper-I Theory Option-1: WORLD MILITARY HISTORY-1I (Modern) (From 1789 A.D. to Present day)

M.M.: 60 Time: 3 Hrs.

#### Unit-1

The Age of Steam (1789-1900):

Revolution in Tactics. French Revolution 1789 A.D. Napolionic Art of War. Battle of Waterloo 1815 A.D.

#### Unit-II

AGE OF OIL (1900-1945)

Discovery of Oil (1859); Invention of Internal Combustion Engine.

Technical Revolution in Land, Naval and Air Warfare.

Two World Wars of the Oil Age: Weapons and Tactics.

## **Unit-III**

## AGE OF ATOMIC ENERGY (1945-Continued)

Beginning of Nuclear Era.

Atom Bomb and Hydrogen Bomb.

Modern Means of Delivery of Nuclear Bombs: Artillery Shells, Aircraft and Missiles.

Theories of Nuclear Warfare:

Deterrence and Massive Retaliation.

#### **Unit-IV**

#### AGE OF COMPUTER

Cyber War, Information and Electronic Warfare

- 1. Armament and History-J.F.C.Fuller.
- 2. Weapons and Tactics-Tome Wintringham.
- 3. Makers of Modern Strategy-E.M.Earle.
- 4. Conduct of War-J.F.C.Fuller.
- 5. A Hundred Years of War-Cyril Falls.
- 6. An Introduction to the Art of War-S.T.Das.
- 7. Sainya Vigyan-B.N.Maliwal.

## **B.A.-1** (1<sup>st</sup>. Semester)

## **Option-II-MILITARY PSYCHOLOGY-1**

M.M.: 60 Time: 3 Hrs.

Military Psychology: Development; Functions and Problems, Significance.

Human Factor in Fighting Forces:

Individual Differences, its importance for fighting forces. Vocational Fitness, right soldier for a right job; Placement.

Methods of Selection: Job analysis, Interview: its merits and demerits.

Fatigues: Causes and remedy.

Motivation: Kinds, motivation during war.

- 1. Raj Narain: 'Military Psychology'; Bhargva Book Depot, Agra.
- 2. E.G.Boring: Psychology of Armed Forces-English Book Depot, 15 Rajpur Road, Dehradoon. (Uttarakhand).
- 3. Psychology for Fighting Man-Maj. Hasnain-EBD, Dehradoon.
- 4. Psychology and the Soldier-Bartleft.
- 5. Psychology and the Solider-N.Copeland.
- 6. Line Barger: Psychological Warfare.
- 7. Sprott-Social Psychology.
- 8. Dr.N.P.Tiwari: Military Psychology: 2005, Chandra Prakash & Company, Hapur-Distt.Ghaziabad (UP).
- 9. Smt.Pushpa Jain: 'Sainik Manovigyan'
- 10. 1975-76; gyan mandal Prakashan, Patnapar Bazar, Gwalior-1 (M.P.).
- 11. Psychology, Understanding Human
- 12. Behaviour: Sartain and others.

## **B.A.-1**(1<sup>st</sup> Semester)

## Paper-II-PRACTICAL (MAP READING-I)

M.M. 30 Time: 3 Hrs.

MAP its definition, Characteristics, Classification, marginal informations of a Topo-sheet and its utility for Military.

CONVENTIONAL SIGNS: Military and Geographical.

GRID SYSTEM; Four figure and six figure Map References.

SHEET NUMBER; Million Sheets 'Quarter inch sheets' Half inch Sheets' 'One inch Sheet' and index of Sheets.

SCALE; Definition, three methods of representing scale, inter-conversion of Statement' into R.F.construction of simple scale line and the comparative scale lines.

Note-1. Practical exercise should be carried out on TOPO SHEETS Candidate will submit a Project Report Educational Tour

- 1. Armament and History-J.F.C.Fuller.
- 2. Weapons and Tactics-Tome Wintringham.
- 3. Makers of modern Strategy-E.M.Earle.
- 4. Conduct of War-J.F.C.Fuller

## B.A.-1 (2<sup>nd</sup> Semester)

## **Option-II-MILITARY PSYCHOLOGY-1I**

M.M.: 60 Time: 3 Hrs.

## 1. Aptitude and Morale:

Factors influencing Morale, Maintenance of Morale during War and Peace.

2. Tools of Psychological Warfare:

Brain Washing.

Rumour.

Technique of Propaganda.

Indoctrination and Coerave persuation.

- 3. Military Leadership: Traits, Types and Qualifications.
- 4. Discipline and Man-Management.
- 5. Mental Hygiene.

- 1. Raj Narain: 'Military Psychology'; Bhargva Book Depot, Agra.
- 2. E.G.Boring: Psychology of Armed Forces-English Book Depot, 15 Rajpur Road, Dehradoon. (Uttarakhand).
- 3. Psychology for Fighting Man- Maj. Hasnain-EBD, Dehradoon.
- 4. Psychology and the Soldier- Bartleft.
- 5. Psychology and the Solider- N.Copeland.
- 6. Line Barger: Psychological Warfare.
- 7. Sprott-Social Psychology.
- 8. Dr.N.P.Tiwari: Military Psychology: 2005, Chandra Prakash & Company, Hapur- Distt.Ghaziabad (UP).
- 9. Smt.Pushpa Jain: 'Sainik Manovigyan' 1975-76; Gyan Mandal Prakashan, Patanpar Bazar, Gwalior-1 (M.P.).
- 10. Psychology, Understanding Human Behaviour: Sartain and others.

## Paper-II-PRACTICAL (MAP READING-II)

M.M.: 30 Time: 3 Hrs.

- 1. NORTH: "Types of North" and finding out True North Direction by equal Altitude method, Watch Method, Compass method etc.
- 2. Bearing and Inter-conversions of Bearings in detail.
- 3. Liquid Prismatic Compass functions of its various parts, and the following exercises on the Prismatic Compass:

To determine magnetic North by Compass.

Setting the MAP by Compass.

To find out the bearing of a point from other point situated on the ground.

To determine own's and enemy's position on the MAP by Re-section and Intersection methods with the help of compass.

To set the compass in a particular direction for night march.

- 4. Determination of individual Compass Error (ICE).
- 5. Service Protractor: Its types and uses.
- Note: 1. Practical exercise should be carried out on TOPO SHEETS.
  - 2. Candidate will submit a Project Report
  - 3. Educational Tour

- 1. Military Map Reading by Gale and Polden.
- 2. 'Samrik Manchitra Pathan' (Hindi) Professor-Hazari Lal.
- 3. 'Prakriyatmak Sanya Vigyan' (Hindi): Vol.-1 & II by B.N.Maliwal.
- 4. 'Sainik Manchitra Vigyan' M.P. Verma.

## **Syllabus of B.A.-II-2010-11**

## **DEFENCE STUDIES**

## **B.A. IIIrd Semester**

## Paper-III (Theory)

	Max. Marks Time	
Option-1: STUDY OF WAR-1	60	3 Hrs
Internal Assessment	10	
	Max. Marks	Time
Paper-1 (Option-A): STUDY OF WAR-1	60	3 Hrs

1. WAR:

Definition, Scope, Advantages and Disadvantages, Causes and Typology on the basis of different Criteria.

- 2. Evolution of War: Feudal, Dynastic, Peoples, Total and Nuclear Wars.
- 3. Cold War: Definition, Concept and Types.
- 4. Guerrilla Warfare: Definition, Historical background, Characteristics; Strategy, Tactics and Principles.
- 5. Counter-Guerrilla Warfare: Concept, Need, Strategy, Principles and Operational Measures to overcome rebels.
- 6. Characteristics of Modern Warfare: Asymmetric, Low-intensity Conflicts, Protracted, Advanced Technology.
- 7. Terrorism: Definition, Organization, Types and Causes.
- 8. Preventive and Operational Measures to Counter Terrorism.
- 9. Cyber War and Electronic Warfare.
- 10. Ten Principles of War:
- i) Selection and Maintenance of Aim.
- ii) Offensive Action.
- iii) Concentration.
- iv) Economy of Force.

- v) Co-operation.
- vi) Security.
- vii) Surprise.
- viii) Mobility and Flexibility.
- ix) Maintenance of Moral and
- x) Administration.

- 1. Essentials of Military Knowledge; Maj.Gen. Palit.
- 2. Nature of Modern War: Cyril Falls.
- 3. Samrik Sidhant : M.P.Verma.
- 4. The Art of Land Warfare: B.N.Maliwal.
- 5. India Wins the War: S.N.Rampal.
- 6. An Introduction of the Art of War; S.T.Das.
- 7. The Study of Indirect Approach: Liddle Hart.
- 8. Yoddh Mimansa by Prof. M.C.Maheshwari.
- 9. The Study of Military History: Shappered.

# Option –II-THEORY AND PRACTICE OF WAR-1 Max.Marks Time 60 3 Hrs

Internal Assessment:

10

- 1. Industrial Revolution and its Impact on Military Power.
- 2. American Civil War (1862-65)
  - a) Introduction
  - b) Causes
  - c) Main Events (in brief)
  - d) Effects on warfare
- 3. Russo-Japanese War (1904-1905)
  - a) Introduction
  - b) Causes
  - c) Events (in Brief)
  - d) Political Consequences
- 4. World War 1<sup>st</sup> and its Origin
  - a) Causes of the World War-I
  - b) Trench warfare and Armour with special reference to the battle of Somme.
  - c) Naval Warfare; (i) Element of Sea Power, (ii) Naval Strategy and Tactics during world War-1.
  - d) Air Warfare
    - i) Birth and concept of Air Power and its development
    - ii) Role of Air Craft during World War-1
  - 5. IInd World War:

Causes and Origin of World War-II.

Armoured Warfare; Concepts of J.F.C.Fuller, Guderian and Liddell Hart.

Air Warfare: Concepts of Douhet, Mitchell.

Sea Power; Contribution of A.T.Mahan on Naval Warfare.

- 6. Nuclear Warfare:
  - i) Beginning of Nuclear Era.
  - ii) Main destructive effects of nuclear energy. Flash, heat, thermal radiation, blast and nuclear radiation.
  - iii) Theories of Nuclear Warfare: Deterrence and Massive Retaliation.

- 7. Cyber War and Electronic Warfare:
- 8. Gulf War-1 (1990-91): Gulf War-II (2003-5) and Global Terrorism.

- 1. Quincy Wright: A Study of War.
- 2. J.F.C.Fuller: Armament and History.
- 3. J.F.C.Fller: The Conduct of War.
- 4. E.M.Earle: Makers of Modern Strategy.
- 5. J.F.C.Fuller: The American Civil War, 1861-65.
- 6. Monotogomry: History of Warfare.
- 7. Indu Prakash: Science of War.
- 8. D.K.Palit: War in Deterent Age.
- 9. D.K.Palit: Essentials of Military Knowledge.
- 10.K.S.Tripathi: Evolution of Nuclear Strategy.

## Paper-II- PRACTICAL (MAP READING-1)

**M.M.** : **30** TIME : 3 Hrs.

Practical Test : 20 Marks
Practical Record : 05 Marks
Viva-Voce : 05 Marks

- 1. SCALE: Construction of Time Scale and Diagonal Scale.
- 2. Bearing and Inter-Conversion of Bearing with I.C.E.
- 3. Finding Positions on the Gridded Map by Intersection Method and Resection Method.
- 4. Relief Features and their representation on the Map.
- Types of slope and their representation on the Map by CONTOUR Lines.

Note: Above mentioned exercises should be carried out on Topo- Sheets.

- 1. 'SAMRIK MANCHITRA PATHAN' (Hindi)): Professor Hazari Lal: (1979) Part-1 and Part-II: Publisher: Shamrik Prakashan Kendra, 2/119, Shyam Nagar, ALIGARH (U.P).
- 2. PRAKRIYATMAK SAINYA VIGYAN (Hindi) Part-1 and Part-II, By B.N.MALIWAL; (1968) EBD Publishing and Distributing Company 144, Rajpur Road, Dehradoon. OR Latest-Publisher of this Book is: Chandra Prakash and Brother, Kothi Road, HAPUR, Distt. Ghaziabad (UP).
- 3. Military Map Reading by Gale and Polden.
- 4. Sainik Manchitra Vigyan: M.P. Verma, Aligarh (UP).

## **B.A.-II** (4<sup>th</sup> Semester)

## Option-1: STUDY OF WAR-II M.M. 60 Time 3 Hrs.

## Evolution of Strategic and Tactical Thoughts:

- 1. Various Definitions of Strategy and Tacticts.
- 2. Distinction between Strategy, Tacticts and Concept of Grand Strategy.
- 3. Evolution of Tactics during 19<sup>th</sup> and 20<sup>th</sup> Century.
- 4. Evolution of Strategy during 19<sup>th</sup> and 20<sup>th</sup> Century.
- 5. Types of Strategy: Indirect Approach; Annihilation and Exhaustion.
- 6. Study of Indo Pak Wars of 1947-48, 1965 and 1971 with reference to the following:
- i) Causes of War.
- ii) Main Events.
- iii) Political and Military Lessons Learnt.
- 7. Study of Sino-Indian War of 1962 and Causes of Indian Defeat.
- 8. Origin and Causes of World War-1<sup>st</sup>.
- 9. Origin and Causes of World War-2<sup>nd</sup>

- 1. Essentials of Military Knowledge; Maj.Gen. Palit.
- 2. Nature of Modern War: Cyril Falls.
- 3. Samrik Sidhant: M.P. Verma.
- 4. The Art of Land Warfasre: B.N.Maliwal.
- 5. India Wins the War: S.N.Rampal.
- 6. An Introduction of the Art of War; S.T.Das.
- 7. The Study of Indirect Approach: Liddle Hart.
- 8. Yoddh Mimansa by Prof. M.C.Maheshwari.
- 9. The Study of Military History: Shappered.

## **Option-II-THEORY AND PRACTICE OF WAR-II**

M.M.: 60 Time 3 Hrs.

#### 1. Second World War

- a. Causes and Origin of World War-II.
- b. Armoured Warfare; Concepts of J.F.C.Fuller, Guderian and Liddell Hart.
- c. Air Warfare: Concepts of Douhet, Mitchell.
- d. Sea Power; Contribution of A.T.Mahan on Naval Warfare.

## 2. Nuclear Warfare

- i) Beginning of Nuclear Era.
- ii) Main destructive effects of nuclear energy. Flash, heat, thermal radiation, blast and nuclear radiation.
- iii) Theories of Nuclear Warfare: Deterrence and Massive Retaliation.
- 3. Cyber War and Electronic Warfare.
- 4. Gulf War-1 (1990-91); Gulf War-II (2003-5) and Global Terrorism.

- 1. Quincy Wright: A Study of War.
- 2. J.F.C.Fuller: Armament and History.
- 3. J.F.C.Fller: The Conduct of War.
- 4. E.M.Earle: Makers of Modern Strategy.
- 5. J.F.C.Fuller: The American Civil War, 1861-65.
- 6. Monotogomry: History of Warfare.
- 7. Indu Prakash: Science of War.
- 8. D.K.Palit: War in Deterent Age.
- 9. D.K.Palit: Essentials of Military Knowledge.
- 10. K.S. Tripathi: Evolution of Nuclear Strategy.

## **BA-II** (4<sup>th</sup> Semester)

PRACTICAL (MAP READING-II) MM : 30

Time: 3 Hrs.

Practical Test : 20 Marks
Practical Record : 05 Marks
Viva-Voce : 05 Marks

- 1. Gradient and slope in Degrees.
- 2. To determine Inter-visibility between two points; gradient method, Sum proportion method and Section drawing method.
- 3. To draw a field sketch from a given Route Report.
- 4. Enlargement and Reduction of Maps.
- 5. To prepare a Route Report from a given narrative data.

Note: 1 Above mentioned exercises should be carried out on TOPO Sheets.

- 2. Candidate will submit the Project Report
- 3. Educational Tour

#### **Books Recommended:**

'SAMRIK MANCHITRA PATHAN' (Hindi)): Professor Hazari Lal: (1979) Part-1 and Part-II: Publisher: Shamrik Prakashan Kendra, 2/119, Shyam Nagar, ALIGARH (U.P).

PRAKRIYATMAK SAINYA VIGYAN (Hindi) Part-1 and Part-II, By B.N.MALIWAL; (1968) EBD Publishing and Distributing Company 144, Rajpur Road, Dehradoon. OR Latest-Publisher of this Book is: Chandra Prakash and Brother, Kothi Road, HAPUR, Distt. Ghaziabad (UP).

Military Map Reading by Gale and Polden.

Sainik Manchitra Vigyan: M.P. Verma, Aligarh (UP).