# S.Y.B.A./ B.Sc. (From June, 1993)

GeA paper: Maratha Mil. History
Optional: Contemporary study of War & Peace.

Spi. 1 Modzrn warfare.

Optional. Logistic Management in Armed forces.

Spl. 2 Geopolitics & Militery Geo-

Optional. Role of Science & Technology in National Security.

Note: There will be practical of 20 marks of Spel NORTH MAHARASHTRA UNIVERSITY, JAIGAON paper-II

Defence and Strategic studies
S.Y.B.A./B.3c., General Paper
Title - Maratha Military History

#### PART - I

- 1) Political, social, Economic, Religious and Geographical situation in Maharashtra before the emergence of Shivaji.
- 2) Role of Jijabai and Dadaji Kondadeo in making Shivaji.
- 3) Shivaji and Adil shali -a) General, b) Jawali incidenti) Strategic importance of Jawali, ii) Shivaji and More confilict causes, iii) consequences of Jawali Incident.
  c) Battle of pratopgrats i) Indroduction ii) Militery
  Strength of Afz/khan and Shivaji iii) Attack of Afzalkhan.
  iv) War Tactics of Shivaji v) Deplemacy of Krishnaji
  Bhanker and Sepinath Pandit, vi causes of victory in
- 4) Shivaji and Mughals a) General. b) Raid on Shahistekhani) introduction. ii) Militery strength of shahistekhan and
  Shivaji iii) Battle action. iv) War Tactics of Shivaji
  c) Campaign of Mirza Raja Jaising i) Introduction
  - li) Strategy of Jaising. iii) Deployment of force.
  - iv) Siese of purandar, v) Treaty of purandar.

Prataograh Battle.

- 5) Karnatak campaign of Shivaji i) Introduction. 11) objectivas of expedition. iii) Consequences of campaign (Military
  qualities of Shivaji in Karnatak campaign.)
- 6) Assessment of Shivaji as a Militery leader i) founder of National Army. ii) Superior commander qualities. iii) Guerilla war tactics. iv) discipline. v) Regular pay and pention and effective spies. vi) Simple living commander. vii) Comparisan of Nepolion and Alexander.
  - (b) Guerilla war Tactics and shivaji characteristics of Guerilla war tactics.

iv) cavazy - Bargir and shiledar v) organisation, pay and Training vi) Infantry - Recruitment of soldiors - organisath on vii) Discipline viii) Navy - Importance of Navy - Naval system, - type of ships - size of shipe - Total ships - organisation - Naval Industries (Building) - commercial navy -Naval role for security.

Forts - Type of forts, officers in forts their duries - (Hawaldar, subnis and karkhanis)

8) Raje Sambhaji - as a Military leader.

#### PART - II

- 9) Struggle with Mughals -a) Rajaram General.
  - Strategy of Rajarom (Maratha)
  - Battle action.
  - role of santaji dhanaji
  - (b) <u>Santaji & <sup>D</sup>hanaji</u> Military role during Rajaram and şhahu - Guerilla war tactics of şantaji and **j**hanaji (c) <u>Tarabai</u> -General - strategy of Tarabai, - counter attack on Mughals.
- 10) Bajirao I a) as a military leader b) Battle of palkhed -Introduction, - causes of conflict between Nizam and Bajirao-I - Importance of Battle of palkhed - c) Battle of Thopal -Introductdon- Battle action, - sies of Bhopal - Treaty.
- 11) Nanasaheb peshwa (1) Battle of panipat General causes of inventions of Ahmedshah Abdali - War planning - War strategy of Abdali and Maratha - Battle action - causes of deffet of Maratha - consequences of Battle of panipat. (ii) Battle of Kharda - Introduction. - Military importance of kharda. - War\* \* War Movements of Nizam.

  Movements of Maratha. - Deployment of force - Mattle action
- 12) organisation of Armed forces during peshwa General. Army Recruitment of other community. - cavalay - Type -pagashiledar - Bargir-pendhari - Weapons. - Artillery - Shinde -[Holkar's role in Artillery. - Transportation of artillery.] - <u>Navy</u> - contribution of kanhaji Angre.
- 13) <u>Anglo Maratha Wars</u> (a) <u>First war</u> i) Introduction ii) Treaty of purandar (Nana phadnis + British iii) Invantion of Raghoba (Battle of khandala) iv) Tecaty of vadgaon (British & Maratha) v) Battle of sipra river - Treaty of salbai vi) importance of treaty of salbai
  - (b) Second War Introduction -
    - War planning of British.
    - Treaty with Bajirao II
    - Battle in south (shind + British)
    - Treaty of Deogacn and Anjangao
  - (c) Third War Battles with Holker.

cont..3a.

- 14) Decline of Maratha power causes i) fudral system,
  - ii) lack of unity. iii) Economic condition. iv) ignorance of new war tactics & weapons. v) Neglegance of Navy.
  - vi) lack of leadership. vii) inefficient spies & good knowdge of Geography, viii) lack of Nationality. ix) Defence between weapons and leadership x) Religion system of Maratha.

## Books -

- 1) Sardesai G.S. New History of Maratha's
- 2) Sarkar J.N. Shivaji and his times.
- 3) Sen S.N. Military system of the Marathas
- 4) Deopujari M.B. Shivaji and the Maratha Art of war
- 5) Sarkar J.N. House of shivaji
- 6) जयतिंगराव पदार पावाजी व पाविकाळ
- 7) जयसिंगराच पवार मराठी साम्राज्याचा उदय आणि अस्त

# S.Y.B.A./ B.Sc.

## Defence and Strategic studies

General (Optional paper)

# Title - Contemporary study of war and peace

#### Section I

- 1. Nature of the International sovereign state system
  - a) Evolution of Post World war I International order
  - b) Nature of the international state system after the second world war (Sp.Ref. Pipolarity, nuclear age)
- 2. Concepts of security
  - a) Balance of power meaning, types, characteristics, methods and evalutions.
  - b) Collective Security meaning of foundation and evaluation
  - c) Deferrence, meaning, Definition, Theory,
  - d) Neutrality, Relation between bell igerent and newtraks, Blockade, contraband,
  - 3. Determinants of foreign/defence policies,
    - a) National power and National Interest,
    - b) Ideology,
    - c) Science, technology and National security.
  - 4. War as an instrument of foreign policy

#### Section II

- .5. Cold war and emergence of world order (1945 to 1985)
  - a) Evoluation of cold war in Europe,
  - b) growth of alliance systems.
  - c) Detente, meaning, nature and scope.
  - d)Return of cold war.
  - 6. Emergence of the Third World.
    - a) Growth of regionalism of in Afro-Asia (Special reference cont..4.

to Asian, Relations Conference, 1947, conference on Indones a. 1949, Colombo conference, 1954 and Bandung conference, 1955)

- b) Growth of Nonrlignment (Special reference to Noneligned summit conferences)
- Arms control and Disarmament,
  - a) Nature and meaming
  - b) Important arms control agreements.

#### Books (Reference)

i) Calvocovessi peter, World Politics Science 1945,

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ii) Halperin\_Morton : Contemporary military strategy.

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- iii) Maarice clark : Reading in the Economics of war.
  - iv) Prodie. R : Strategy in the missite Age.

Defence and Strategic Studies.

S.Y.B.A./3.Sc. Special paper - I S-1

<u>Title</u> - <u>Modern Warfare</u>.

#### PART - I

- 1. War i) Concept and Meaning
  - ii) Scope of War
  - iii) Causes of War
    - iv) Principles and consequences of war.
- 2. Conventional warfare
  - i) Aspects
  - ii) Limited war and Total war.
- 3. Nuclear warfare
  - i) General
  - Concept of nuclear warfare
  - iii) Origin and development of nuclear warfare.
  - iv) Nuclear strategy
  - v) Arms race and its effects.
- 4. Missiles Type a) Range based missiles
  - b) Target based missiles and their characterastics
- 5. Theory of Deferance.
- 6. Detent and Decline of cold war.

#### PART - II

- 7. Guerilla warfare 1) Meaning, principles, characterastics etc
  - ii) Views of Mao, che-Guevara and Lenin
- 8. Chemical Warfare- i) Historical development
  - ii) Nature of chemical warfare
  - iii) Type of chemical warfare
    - iv) Methods of chemical warfare

- v) effect and objectives of chemical warfare.
- 9. Biological warfare -1) Historical Development
  - ii) Nature of Biogical warfare
  - iii) Type of Biogical warfare
    - iv) Methods of Biogical warfare
  - v) effect and objectives of warfare
- 10. Psychological Warfare :
  - . i) Meaning of psychological warfare
    - ii) Nature
  - iii) Means of
    - iv) Objectives "
- 11. Economical warfare Meaning
  - concept
    - objectives.
- 12. Eletronic Warfare, Defination, concept objectives and sources
- 13. Insurgency and counter insurgency
  - a) Insurgency -causes -i) Distictive feature ii) Pre-requesites for insurgency. iii) Elements of insurgency
  - iv) progression of insurgency v) conclusion.
  - b) counter insurgency -i) Relation React in fit for taf way.
  - ii) follow up (continuous) action of action plan.
  - iii) To use various means to restrain insurgency.
    - iv) Accept external non Government bodies aid.
    - v) Measures to block internal & External aid to the insurgents.
  - vi) Destruction of power centers of insurgents.
  - vii) Isolation of insurgents from society.
  - viii) Assimilation of insurgents in national main current.
    - ix) Development plans to be activated.
      - x) continuous follow up action till the goal in reached.
- 14. Star war (SDI) concept of strategic defence Iniciative, objectives, methods.

## Selected Readings -

- 1. World Politics since 1945 calvocovessi peter
- 2. Contemporary Military Strategy Halperin morton
- 3. Strategy in the missile Age- Bordie-B.
- 4. Makers of modern Strategy Earle E.M.
- 5. Hundred years of war, fulls cyrill
  - 6. History of warfare montgomery.

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## Defence and Strategic Studies

S.Y.B.A./B.Sc.. Special Paper I (Optional) S.1. Title :- Legistic Management of National Defence.

## PART - I

- Logistic Management :- Definition-Militery background-seope -Political and Economical factors-Influence of industrial revolution-Need for study and research of logistic management.
- Logistics Principles and objectives of logistic management.-Relation to the theory of
- The nature and i) Nature of war ii) Spectrum of conflicts
  iii) Tolls of conflicts Structure of War iv) Limitations of war.
- Legistic planning and programming
- War time and peace time
- Pattern of planning iii) Levels of planning
- iv) Requirements of planningv) Capabilities of planning vi) Operational planning
- vii) Factors of planning viii) Methods of planning
  - xi) Logistics objectives of planning.
- 5. Mobilization of War
- Potential of War mobilization
- 11) Integrating strategy logistics and Tact1cs
- iii) Fisibility and calculated risk.
  - iv) Logistic requirements of the Armed Forces.

### PART - II

- Problems of Logistic i) Requirements of Logistics in different terrain ii) Transportation by-land, Air and Sea.
- Flexibility and Momentum
- Flexibility is rooted in command.
- Effect of command and control.
- iii) Momentum and mobility.
- iv) Logistic momentum.
- v) Control of momentum.
- vi) Relation to momentum control.
- 8. Logistics and Industries
- Logistic channel and industrial structure.
- ii) Economic resources and industrial base.
- iii) Public Sector industries
  - Logistic iv) Private sector industries channel for Armed Forces.
- 9. Command and control of i) Factors
  Logistic Management ii) Implication
  Lii) Board Command responsibilities.

  - iv) Logistics and functions of command in an arca.
  - v) Practical problems.
  - vi) Personal problems
  - Vii) Exercise.

10. Logistics in the 1) Army supply courp (ASC) Field board outline ii) Army ordanance courps (AOC)

iii) Army Medical Courp (AMC)
iv) Electrical & Mechanical Engineer(EME)

## Books

- 1) Henry E. Eccles :- Logistics in the national Defence.
- 2) Rear Admiral R.Bureau :- The Organisation of Logistics support

Defence and Strategic Studies. SYBA/B.Sc. Special paper-II

Title Geopolitics and Military Geography. S 2

## PART - I

- Military Geography Introduction Approach to MiliGeay Environmental Martix, Oprational martix - section of oprational martix -Transport, & communication system, military organisation and logistics, civil co-operation.
- 3. Definitaons -
- Scope of the subject.
- 5. Principles of military Geography
- Uses of military Geography.
- 7. Military Geography and Political Geography.
- (2) National power and Military Geography
  - a) Concept of National power
  - b) Elements of National power -1) er -1) Geography, Natural -Industrial Development, Military Resources. ii) -Industrial Development, Militarepradness, population, science & Technology National moral, political and social system, etc.
- (3) Frontiers and Boundries a) Introduction b) Meaning of frontiers c) Meaning of Boundries d) Type of Boundries 
  1) Natural ii) Artificial c) Elements of Boundries natural obstacles, cultural dividation, Riligion, political f) Role of Boundries -Boundries.
- (4) Maritime Boundries a) General b) Concept of territorial:
  - Rang role of territorial water. c) concept of continental shelf & exclusive economic zone d) concept of open sea.
- (5) Buffer Zone a) General
  - b) Land lock State concept
     problems of land lock state -international revir, corridor, transit.
- (6) a) Planning of Logistics War time and peace time planning - Requirments of planning - capabilities of planning - Methods and objectives of planning.
  b) Transpartation and communication.
- India's land Boundries and their importance
  - a) Western Border 1)Strategic importance ii) scctors - kashmir, punjab, Rajstan, Gujrath.
    - 111) Tactical problems
      - iv) Kashmir problem.(political problem)
  - b) Northern Border i) Strategical importance.
    - ii) sectors North Wost, central, East.
    - 111) Mac Mohan line.

cont... B.

c) Eastern Border - 1) Goostrategical importance

2) outer Border, internal Border.

#### PART - II

Geopolitics i) a))Meaning.

b) Importance of Geopolitics

c) Scope of Geopolitics.

d) Ecopolitics and Military Geography.

Historical evolution of Geopolitical thoughts

a) Machinder's Heartland theory - General Heart Land.

- theory

objections on theory.

- effect of theory.
b) Mahan - General - Naval power theory.
- affecting factors on naval power-

Geographical situation of nation.

ii) Phisical structure of nation

iii) Size of nation.

iv) population.v) National Interest and Governments policy.

c) Houshopher - General.
 - Basic principles of theory i) Economic self sufficiency

Living Area.

iii) outer zon (ਬੂਫ਼ਰ ਉਤ ) iv) Land power Vs. Sea power.

v) Boundries.

Houshopher's role through Geopolitical theory.

Geostrategy - a) Meaning

b) Importance of Geostratogy.

 c) Important factors of Geostrategy ie- physical Geography, Land & peapol, culture & Government of state, Boundries of the Nation, Climate, wather and communication.

10. Geostrategical Meanerals -i) Iron, ii) copper iii) Boxiet

iv) Mangnies, v) Coal, vi) Urenium etc.strategical importance of west Asia.

- Importance of oil during wartime and peace time,

11. Geostrategic position & importance of a) Die-go-Garcia

- General

- Geographical location

Strategical importance

→ India and Die-go-garcia

b) Andaman & Nicobar Islands - General
 - Geographical location
 - Strategical importance.

c) Kakshwadeep Islands - Geographical location

Strategical importance

12. Grand Strategy - Strategy - Tactics

a) Grand Strategy - Meaning, Concept Characteristics 🔑

b) of grand strategy.

b) strategy - Meaning , concept

c) Tactics -

13) Geographical factors affacting war -

i) Boundries wall, strench, Natural obstacles cultural division, religion.

Topography

iii) Size & shape - Metits (Direct, indirect.)

iv) climate - examples.

v) Location - Mathematical, strategical.

14. Impact of Geography on - a) Sea warfare - main factors of naval operation - i) open sea ii) Restricted water

iii)ports & Rout of communication.

b) <u>Air warfare</u> - General

- Meaning of Air power

- Elements of Air power - i)phisical a) Geographical - location, size & shape Element -

Topography, wheather & climate.
b) Economical -Raw material, fuel, industrial potancial, circulatory\_system, electronic communication, socio- Economic development

ii) Political realities

iii) Human Elements.

- iv) Aviation & Military Technology.
- 15) Characteristics of a) Plain
  - b) Desert
  - c) High Altitude d) Jungle.

Logistics problems in these area during war

# Selected Reading - Books

1) Military Geography - peter louis and P.G.Elzel.

2) Geography and National power - Jefferies williams

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Geographical studies in Defence strategy.

- s.r. Das. 4) राजेकीय भूगोल - अ.वि. भागवत

5) Air power - Air commodore Jagjit sing.

6) systematic political Geography - Harm Jdi Blij 7) War potential of Nations - khaus knoor

# SYBA/ B.Sc. Spl - 2 (Optional) Title - Role of Science and Technology in National Security. Section :-

- 1) Science during Ancient Times and middle Ages.
- 2) Rise of Modern Science and inventions
  - a) Development from Armows to Atom,
  - b) The era of Experiment,
- 3) Age of Newtonian philosophy and Scientific law.
- 4) Sceince in the Industrial development and as a factor in social change.
- 5) Energy.
  - a) Definitions,
  - b) Applications.
  - c) Principles of conservation of energy.
  - d) Different forms of energy.
  - e) Sources and their distribution.

# Section II

- A changed outlook in science,
  - a) Discover of Electron,
  - b) Radiation
  - nc) Theory of Relativity
- Age of computers.
  - a) Utility and application
  - b) New Trends,

cont...,10.

- 8) Space age
  - a) Introduction and current trend ( SEI )
  - b) Utility and appplication,
  - c) India's achievement,
- 9) Science and Technology in India's Defence :
  - a) Resource base,
  - b) DRDO throughout the country
  - c) Armment and Armoured fighting vehicles,
  - d) Electronics (chips and miniaturization)
  - a) Aeronautics,
  - Naval Science,
  - ,; Engineering and material science etc.

# Selected Reading

- 1) Turner D.M. and Barfer The book of scientific Discovery
- 2) Singer charles A Short History of scientific Ideas,
- 3) Singer C, Holmy and Es, Hall B.R. and Williams T.I. -

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- A History of Technology
- 4) Journal Defence Science Journal.

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