॥ अंतरी पेटवू ज्ञानज्योत ॥



# <u>North Maharashtra University,</u> <u>Jalgaon</u>

Syllabus for S.Y.B.A.

Defence & Strategic Studies

( W.e.f. July,2003 )

# SYLLABUS FRAMING COMMITTEE FOR SUBJECT - DEFENCE AND STRATEGIC STUDIES OF S.Y.B.A. / B.Sc.

( w.e.f. June 2003)

Name of Professor	Post	Name of College
Prof. A. P. Chaudhari	Chairman	M. J. College, Jalgaon
Prof. B. S. Saindane	Member	S.P.D.M. College, Shirpur
Prof. V. Y. Jadhav	Member	G.T.P. College, Nandurbar
	Member	S.S.V.P.S. College, Dhule
Prof. Dr. M. L. Sali	Member	Bhonsala Military College, Nashik
Prof. Devendra Vispute	Member	Vidyavardhini College. Dhule
Prof. S. J. Borase	Invited Member	S.S.V.P.S. College, Dhule
Prin. Dr. D. P. Deore	Special Invited	S.G.Patil Mahavidyalaya, Sakri Dist. Dhule
	Prof. A. P. Chaudhari Prof. B. S. Saindane Prof. V. Y. Jadhav Prof. R. B. Salunkhe Prof. Dr. M. L. Sali Prof. Devendra Vispute Prof. S. J. Borase	Prof. A. P. Chaudhari Chairman Prof. B. S. Saindane Member Prof. V. Y. Jadhav Member Prof. R. B. Salunkhe Member Prof. Dr. M. L. Sali Member  Prof. Devendra Vispute Member  Prof. S. J. Borase Invited Member

## Aims and Objectives

- To study the Defence and National Security of India.
- 2. To make the student aware of Defence and Strategic Studies.
- 3. To provoke patriotism in students through study of historical wars, historical personalities and military thinkers.
- 4. To update the knowledge about modern weapons, war techniques, strategy and foreign policy.
- 5. To collect the information through electronic media and new techniques about the War Planning.

#### SYLLABUS STRUCTURE - S.Y.B.A.

General Paper (G2) - India's National Security

OR

(G2) - Science Technology and Security (Optional)

Special Paper (S1) - Modern Warfare

OR

(S1) - Logistic Management in National Defence (Optional)

Special Paper (S2) - Geopolitics and Military Geography

OR

(S2) - Disaster Management (Optional)

# NORTH MAHARASHTRA UNIVERSITY, JALGAON SYLLABUS FOR S.Y.B.A. / B.Sc. (w.e.f. June 2003) DEFENCE AND STRATEGIC STUDIES SPECIAL PAPER I (S1) TITLE: MODERN WARFARE

1.	WAR	1 AME - 1	[07]
1.			. ,
	a) Concept and Meaning		
	b) Scope of War		
	e) Causes of War	Ctat	
`	d) Principles and Consequence	es of War	
2.	CONVENTIONAL WARFA	ARE	[05]
	a) Aspects		
	b) Limited War and Total Wa	r	
3.	NUCLEAR WARFARE		[08]
	a) Concept		
	b) Origin and Development		
	c) Nuclear Strategy		
	d) Arms race and its effects		
	e) Deterrence		
4.	MISSILES : INTRODUCTI	ION	[05]
	a) Range based missiles		
	b) Target based missiles		
5.	REVOLUTIONARY WAR	FARE	[07]
	a) Meaning. Principles, Chara	neteristics	
	b) Views of Mao and Che-Gu	evara	
			3 of 21

	SURGENCY AND COUNTER INSURGENCY	[08]
IN	SURGENCY AND COOK TEST	
a)	Insurgency	
	(i) Distinctive Feature (ii) Pre-requisites for Insurgency	
	(ii) Distinctive reducts (iv) Progression of Insurgency (iii) Elements of Insurgency (iv) Progression of Insurgency	
b)	Counter Insurgency	
	i) Retaliation - React in Tit for Tat way	
	Ellow up (continuous) action of action plan	
	To use various means to restrain insurgency	
	non government bodies alu	
	Measures to block internal and external aid to die most	
	vi) Destruction of power centers of insurgents	
	of insurgents from society	
	viii) Isolation of insurgents in national main current.	
	and amount plans to be activated	
	x) Continuous follow up action till the goal in reach.	
	PART - II	[68]
	CHEMICAL WARFARE	looi
7.	CHEMICAL WARE	
	a) Historical development	
	b) Nature of Chemical Warfare	
	c) Type of Chemical Warfare	
	d) Methods	
	e) Effects and objectives	
		[08]
8	BIOLOGICAL WARFARE	
	a) Historical Development	
	b) Nature	
	c) Types	
	d) Methods	
	e) Effects and Objectives	
		4 of 21

9.	PSYCHOLOGICAL WARFARE	[07]
	a) Measures of Psychological Warfare	. ,
	b) Nature of Psychological Warfare	
	c) Objectives	
10.	ECONOMICAL WARFARE	[07]
	a) Meaning	. ,
	b) Concept	
	c) Objectives	
11.	ELECTRONIC WARFARE/ INFORMATION WARFARE	[05]
	a) Definition	• ,
ت	b) Concept	
_	c) Objectives	
	d) Sources	
12.	ENVIRONMENTAL WARFARE	[05]
	a) Definition and scope	. ,
SEI	LECTED READINGS	
	The Conduct of War - An Introduction to Modern Warfare - Samuel B.	Perma
	Suclear, Biological and Chemical Warfare - T. J. Gander	гиуне
	lundred Years of War - Fulls Cyrill	
	Strategy in the Missile Age - Bordie B.	
	listory of Warfare - Mounteganery	
3	Vorld Politics since 1945 - Calivocovessi Peter	
-	Contemporary Military Strategy - Halperian Morton	
	Makers of Modern Strategy - Early E. M.	
	Aakhati Yuddha" - Muzaffar Hussain	
	"Aaakhati Yuddha" - Milind Gadgil	
	"Aadhunik Yuddhakala" - A. P. Chaudhari , Archana Chaudhari	

# NORTH MAHARASHTRA UNIVERSITY, JALGAON SYLLABUS FOR S.Y.B.A. / B.Sc. (w.e.f. June 2003) DEFENCE AND STRATEGIC STUDIES

SPECIAL PAPER I (S-I) (OPTIONAL)

# TITLE: LOGISTIC MANAGEMENT IN NATIONAL DEFENCE

1.	LOGISTIC MANAGEMENT	[07]
	Definition - Military Background - Scope - Political and Economical	
	Factors - Influence of Industrial Revolution - Need for Study and Res	earch
	of Logistic Management	
2.	LOGISTICS	[06]
	Principles and objectives of logistic management - Relation to the thea	
	war.	
3,	THE NATURE AND STRUCTURE OF WAR	[07]
	a) Nature of War	1073
	b) Spectrum of Conflicts	
	c) Tools of Conflicts	
	d) Limitations of War	
1.	LOGISTIC PLANNING AND PROGRAMMING	[10]
	a) War Time and Peace Time	[10]
	b) Pattern of Planning	
	c) Levels of Planning	
	d) Recruitment of Planning	
	e) Capabilities of Planning	
	f) Operational Planning	
	g) Factors of Planning	
	h) Methods of Planning	
	i) Logistic objectives of Planning	

5.	MOBILIZATION OF WAR	[10]
	a) Potential of War Mobilization	
	b) Integrating Strategy, Logistics and Tactics	
	c) Feasibility and Calculated Risk	
	d) Logistics Requirements of the Armed Forces	
	PART - II	
6.	PROBLEMS OF LOGISTIC IN DIFFERENT TARRAINS	[07]
O,	a) Requirements of Logistics	
	b) Transportation by Land, Air and Sea	
7.	FLEXIBILITY AND MOMENTUM	[07]
۲.	a) Flexibility is routed in command	
	b) 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	[10]
ν.	i) Logistic Channel and Industrial Structure	
	ii) Economic Resources and Industrial Base	
	iii) Public Sector Industries - Logistic Channel for Armed Forces	
	iv) Private Sector Industries - Logistic Channel for Armed Forces	
9.		[80] T
	i) Factors	
	ii) Implication	
	iii) Board Command responsibilities	
	iv) Logistics and Functions of Command in an Area	
	v) Practical Problems	
	vi) Personal Problems vii) Exercise	

- i) Army Supply Corps (ASC)
- ii) Army Ordinance Corps (AOC)
- iii) Army Medical Corps (AMC)
- iv) Electrical and Mechanical Engineer (EMC)

#### BOOKS

- 1. Henry E. Ecoles Logistics in the National Defence
- 2. Real Admiral B. Bureau The Organization of Logistics Support System

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## NORTH MAHARASHTRA UNIVERSITY, JALGAON SYLLABUS FOR S.Y.B.A. / B.Sc. (w.e.f June 2003) DEFENCE AND STRATEGIC STUDIES SPECIAL PAPER II (S-2)

TITLE: GEOPOLITICS AND MILITARY GEOGRAPHY

1.	GEOPOLITICS	[Մ/]
	a) Meaning and Definitions	
	b) Scope of Geopolitics	.•
	c) Geopolitics and Military Geography	•
	d) Importance of Geopolitics	
2.	EVOLUTION OF GEOPOLITICAL THOUGHTS	[14]
	a) Machinder's Heartland Theory and Criticism	
	b) Mahan's Naval Power Theory	
	c) Houshophers thoughts and role in Geopolitics	
3.	GEOSTRATEGY	[07]
	a) Meaning and Definitions	
	b) Geostrategical Factors	
	c) Importance of Geostrategy	
4.	GEOSTRATEGICAL MINERALS	[05]
	a) Coal, Iron, Copper, Bauxite, Mangenies	
	b) Strategic importance of Uraniums	
	c) Importance and distribution of Mineral Oil	
5.	GEOSTRATEGICAL IMPORTANCE	[07]
	a) Die-go-Garcia	
	b) Andaman Nicobar Islands	

# PART-II

6.	MILITARY GEOGRAPHY	[10]
	a) Meaning and Definitions	
	b) Scope of Military Geography	
	c) Approaches to Military Geography	
	d) Principles of Military Geography	
	e) Importance of Military Geography	
	t) Military Geography and Political Geography	
7.	FRONTIERS AND BOUNDARIES	[07]
	a) Meaning and Definitions	
	b) Type of Boundaries	
	e) Maritime Boundaries	
	Concept of Territorial Water, Continental Self, Exclusive Economic	
	zone, Open Sea	
8.	LANDLOCKED STATE	[04]
	Concept, Problem and Prospects	
9.	GEOGRAPHICAL FACTORS AFFECTING WAR	[07]
	i) Location	
	ii) Boundaries	
	iii) Topography	
	iv) Size and Shape	
	v) Climate	
	vi) Science and Technology	
10.	IMPACT OF GEOGRAPHY ON MILITARY OPERATION	[12]
	a) Land Warfare - (a) Plain (b) Desert (c) Jungle (d) High Altitude	
	b) Sea Warfare (Characteristics and Problems)	
	c) Air Warfare (Characteristics and Problems)	

#### BOOKS

- 1. Military Geography Peter Louis and P. G. Ezel
- 2. Geography and National Power Jufferies Williams
- 3. Geographical Studies in Defence Strategy S. T. Das
- 4. "Lashkari Bhugol" A. V. Bhagwat
- 5. Air Power Air Commonder Jagjitsing
- 6. Systematic Political Geography Harmidi
- 7. War Potential of Nations Khus Khoor
- 8. "Lashkari Bhugol" A. P. Chaudhari, Paranjape, Sirsikar, Archana

Chaudhari

# NORTH MAHARASHTRA UNIVERSITY, JALGAON SYLLABUS FOR S.Y.B.A. / B.Sc. (w.e.f. June 2003)

# DEFENCE AND STRATEGIC STUDIES SPECIAL PAPER II (S-2) (OPTIONAL)

# TITLE: DISASTER MANAGEMENT

1.	DISASTER	[07]
	Meaning, Types of Disaster, Importance of Disaster, Studies, Aims and	İ
	Objectives of Studies	
2.	NATURAL DISASTER	[06]
	Characteristics, Types, Earthquake, Volcano, Sunami Waves, Land Slic	de,
	Storm, Cyclone, Flood, Drought	
3.	HUMAN DISASTER	[09]
	Fire, Terrorism, Human Bomb, Medicinal Adulteration, Poisoning,	
	Lockout, Strike, Accident - Road, Railway, Waterways, Airways, Indu	strial
	and Development Field	
4.	WAR	[10]
	a) Biological War	
	b) Chemical War	
	c) Atomic War	
5.	ENVIRONMENTAL CHARACTERISTICS - INTERNAL AND	
	EXTERNAL	[08]
	Environment	
	Internal Environment - Cast System Management, Lively Functions,	
	Human Resources, Physical Resources, Technical capacity, Financial	
	Resources	
	External Environment - Micro and Macro Help System, Types,	
	Food, Money, Clothings, Medical Aids, Customer Macro-Natural	
	Population, Social & Economical, Political, Cultural, Technical, Lega	ı <b>l</b>

# PART-II

6.	MANAGEMENT	[06]
	Definition	
	Aims and Objectives	
	Process/ System	
	Disaster Management and Planning	[08]
7.	NATURAL DISASTER MANAGEMENT	լսօյ
•	Planning Technical Ways,	
	Surveying and Measurement	
	Co-operational Factors	
	Government Policy	(4.1)
8.	HUMAN DISASTER MANAGEMENT	[10]
	Security Forces	
	Civil Defence	
	Organization and Function	
	Search	
	Rescue	[06]
9	LEADERSHIP	• -
	Courage, Ability, Confidence, Knowledge, Character, Decisio	III IVIARIUE.
	Co-operation, Moral, Reliability	[10]
1	10. PUBLIC AWARENESS	[20]
	Values of Human Beings	
	Strengthening of National Capacity	
	Training	

#### REFERENCES / BOOKS

- Agrawal V. P. & SVS Ramal Environmental and Natural Resources
- Arabina Samant Cyclone Hazards and ......, Economic and Political Weekly Vol. 38, Sept. 20-26, 1997
- 3. Bramhe Sulabha Drought in Maharashtra
- Alizad, Varad, Bhos "Paryawaran Vidnyan"
- Gharpure Vitthal "Paryavaran Bhugolshastra"
- 6. David Warne Where there is no Doctor (1981)
- 7. Deshmukh Shripad- Water Pollution, Sound Pollution, Air Pollution
- 8. Jasjeet Sinha (Air Cdr.) "Bhartiya Parmanushastra"
- 9. Patkar M. G. Principles of Management
- 10. Rais Alehtar and Yoga Verhasselt Disease Ecology adn Health
- 11. Ramakant Bhola Post Cold War Development in South Asia
- 12. Simmons I. G. Biography Natural and Cultural -
- 13. Srivastava B. P. Our Forests
- 14. Sarang Subhashchandra "Paryawaran Bhugol"
- 15. T. N. Khoshoo-Environment Concern and Strategies
- 16. Canninghan (IIIrd Cdr) Environment Science
- 17. Agrawal S. K. Environmental Issues and Themes
- 18. Trivedi P. R., Gurudeep Raj Encyclopaedia of Environmental Science

## NORTH MAHARASHTRA UNIVERSITY, JALGAON SYLLABUS FOR S.Y.B.A. / B.Sc. (w.e.f. June 2003) DEFENCE AND STRATEGIC STUDIES TITLE: INDIA'S NATIONAL SECURITY (G-2)

1.	NATIONAL SECURITY AND NATIONAL INTEREST	[05]
	a) Meaning	
	b) Concept	
	c) Comprehensive Security	
	Concept and Factors [Social, Economical, Political and Military]	
2.	INDIA'S NATIONAL POWER	[89]
	Geography, Natural Resources, Population, Economical, Leadership,	
	Military Power. Science and Technology	
3.	SECURITY PROBLEMS	[13]
	a) Geographical - Regionalism, Population, Resources and Developme	ent
	b) Political - Diversity, Political Imbalance and Development Bureauc	
	c) Economical - Diversity, Center and State Relations, Developments	
	d) Social - Communalism, Religious Riots, Language	
4.	INSURGENCY AND SECURITY	[06]
	a) Concept of Insurgency,	
	b) Problems of North-East	
	c) Assam Problem	
	d) Naxalites Movement	
5.	TERRORISM AND SECURITY	[08]
	a) Meaning and Concept	
	b) Punjab Problem	
	a) I & K Problem	

# PART-II

	· · · · · · · · · · · · · · · ·	*4.63
6.	INDIA'S DEFENCE AND FOREIGN POLICY	[10]
	a) India's Defence Policy - Considerations Developments and Object	tives
	b) Indias' Foreign Policy - Objectives and Brief Account of Foreign	Policy
	Since 1947	
7.	INDIA'S NUCLEAR POLICY AND NUCLEAR ESTABLISHM	MENT
		[09]
	a) Policy - Aims, Objectives, Development of Nuclear Policy, NPT	and
	CTBT	
	b) Nuclear Plants and Heavy Water Plants	
8.	NAVAL SECURITY OF INDIA	[07]
	a) Indian Navy	
	b) Strategical Importance of Indian Ocean	
	c) India's Indian ocean Policy (Peace zone Concept)	
9.	INDIAN SUBCONTINENT AND INDIAN SECURITY	[88]
	a) SAARC	
	b) Intervention of Neighbouring Countries and Indias Security	
10.	MILITARY PREPARATION AND SECURITY	[06]
	a) Military Balance of India	
	b) Trends in Defence Expenditure of India	
во	OOKS	
I.	K. Subramanyam - India and Nuclear Challanges	
2.	K. Subramanyam - Our National Security	
3.	Gen. D. K. Palit - India's Nuclear Answer to China	
4.	Lt. Gen. O. Kathaplia - National Security Perspective	
5.	Pannikar K. M Problem of Indias Defence	
6.	S. S. Shastri - Defence of India	
<b>7</b> .	Rohit Honda - Policy for India's Defence	
		16 of 21

- 8. Lt. Col. Gautam India's Northern Security
- 9. K. S. Nagar and Gautam India's Security Super Powers
- 10. Sarul Patra India's Ocean and Great Power
- 11. Gautam Sen India's Defence Policy
- 12. Bandopadhyaya Making of India's Foreign Policy
- 13. Dr. B. M. Kapadiya "Antarrashtriya Sambandha"
- 14. Vasant Ratpurkar "Antarrashtriya Kayada"
- 15. A. P. Chaudhari, Archana Chaudhari "Rashtriya Suraksha"
- 16. Waradkar "Antarrashtriya Rajkaran"
- 17. Dr. L. Sinh -- "Rashtriya Suraksha"
- 18. Lt.Gen.(Red) V.R. Raghwan, Comprehensive Security in South Asia (Seminar proceeding)

## NORTH MAHARASHTRA UNIVERSITY, JALGAON SYLLABUS FOR S.Y.B.A. / B.Sc. (w.e.f. June 2003) DEFENCE AND STRATEGIC STUDIES TITLE: SCIENCE TECHNOLOGY AND SECURITY (G-2) (OPTIONAL)

1.	SCIENTIFIC AGE	[06]
	Science and Technology - Definition	[1,4]
	Aims and Objectives	
	Basic Concepts in Scientific Thinking	
	Methods of Scientific Studies	
2.	SCIENCE AND SOCIETY	[10]
	Effects of Science and Technology on Society	[-0]
	Science and Superstition	
	Scientific Attitude and Social Development	
3.	POWER RESOURCES	[10]
	Types of Power Resources	
	Solar Energy, Wind Energy, Tidal Energy, Bio-Energy, Energy, Atomic Energy	Geo-thermal
•	SCIENCE AND TECHNOLOGY IN INDIA'S DEFENCE	[08]
	Historical Background of Indian Science and Technology	lool
	Resources	
	Defence Research and Development Organisation	

# 5. INDIAN SCIENTIFIC AND TECHNOLOGICAL INSTITUTION [06] (AIMS, OBJECTIVES AND FUNCTIONS)

Bhabha Atomic Research Centre, Trombay

Dr. Sarabhai Space Research Centre, Ahmedabad

National Remote Sensing Agency, Hyderabad

National Institute of Information Centre, National Chemical Laboratory,

Pune

#### PART-II

### [06]COMMUNICATION 6. Computer Artificial Intelligence Remote Sensing Internet [08]SPACE AGE 7. Satelite Starwar Rocket and Missiles [06] AUTOMATION 8. Robot Microbots LASER [10]9. **POLLUTION** Air Pollution Water Pollution Sound Pollution Soil Pollution Bio-Weapons

#### 10. MODERNISATION

Micro Electron

Cyborg

Clone

#### REFERENCE BOOKS

- 1. Thurner D. M. and B. The Book of Scientific Discovery
- 2. Singer Charles A Short History of Scientific India
- 3. Encyclopedia of Science and Technology
- 4. Military Year Book
- 5. Journal Defence Science Journals, Defence Revision
- 6. A. P. Chaudhari , Archana Chaudhari "Rashtriya Surakshetil Vidnyan"
- 7. Wing Cmdr. Mohanhal "Raksha Vidnyan, Delhi"
- 8. Dr. Jaysinh Pawar "Vidnyan va Tantradnyan"