

# VBS Purvanchal University Jaunpur

## MILITARY SCIENCE

### M.A./M.Sc. PREVIOUS

#### First Paper- POLITICAL SCIENCE

1. Concept of National Security with reference to the contemporary thinking.
2. Power Theories
  - a. The imprecision of power as a concept.
  - b. Attempt to operationalize the definition of power
  - c. The power profile on Nation States.
  - d. The tangible elements of power.

Geog; Population, territory, natural resources and industrial capacity, agricultural capacity and Military strength and credibility.

- e. Intangible elements of Power
- f. Leadership

Bureaucratic organizational efficiency

Type of Government

Social Cohesiveness, reputation, foreign support and dependency, accidents.

3. Alternative Models of International Security
  - a. Balance of power
  - b. Collective Security
  - c. Collective Defence
  - d. Non alignment

4. Strategy of Deterrence

Concept and Practice in Conventional and Nuclear context.

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5. Arms proliferation as a constraint in national, regional and International security, Prospect for arms control.
6. International Terrorism.
7. Insurgency and Counter insurgency  
Concept, application and importance.
8. Linkages between foreign and defence policies and the domestic developments.

## **Part-II**

9. Problems and policy of India's security and defence in pre-independence period.
10. India's quest for security, problems, foreign and defence policies and postures with reference to 1948 conflict, 1962 conflict, Kutch Dispute, 1965 conflict and 1971 war.
11. India's Nuclear Policy
  - a. Scientific and Technological developments.
  - b. Developments in the Nuclear field in the Third World and its security implications for India.
  - c. India's nuclear relations with great powers.
12. Internal security of India  
Social, economic, political, Scientific and Technological Military and allied aspects.
13. Security problems in the North Eastern region of India.
14. India in the strategic environment of Indian Ocean.
15. Civil Military relations and its implications for security and defence.
16. India's defence and Military preparedness.

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## **Paper-II-MILITARY HISTORY OF INDIA (Upto 1857)**

1. Military system in Vedic, Puranic and Epic Age.
2. Alexander's invasion of India with special reference to Battle of Hydaspes, Contemporary Greek accounts on Indian Warfare.
3. Kautilya's Philosophy of War-State craft, Military Organisation, Weapons, Patterns of Warfare.
4. Politico-Military Systems of Chandragupts Maurya with special reference to Megasthenese's account.
5. Changes in Hindu Military Systems & Art of Warfare during the age of Gupta and Harsh Vardhan.
6. Rajput Military system and Art of Warfare with special reference to the battles of Terrian. (1192 A.D.)
7. Military and Economic reforms of Alauddin Khilji.
8. Babur's invasion of India with special reference to the battles of panipat and Kanawa. New trends in Mughal art of Warfare during the reign of Akbar and subsequent period. Causes of the failure of Mughal Military System.
9. Maratha Military system, land and naval warfare during, the reign of Shivaji. Changes in Maratha Pattern of Warfare during 18<sup>th</sup> Century with special references to the Battle of Panipat, 1761 A.D. Impact of Western ideas on Maratha tactics.
10. Military Organization and pattern of warfare of Khalsa army. Impact of the western art of Warfare and Subsequent.

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## THE WAR

### **Paper III(A)-Arms Control and Disarmament**

1. Concept and Theories of disarmament and arms control.
2. Factors affecting the possibility and probability of negotiations and agreements of disarmament and arms control.
3. Measures of arms control.
4. Levels of compatibility of disarmament, arms control and security.
5. Arms control and security policies required to limit the sphere of nuclear arms race.
6. Agreements for arms control : A critical survey.
7. Internationalization to prevent the spread of nuclear weapons and other weapons of mass destruction.
8. Economic and Social aspects of Disarmament.
9. Military expenditure limitation.
10. Arms race and the war connection.
11. World Military expenditure and the flows of arms: General trends.
12. Arms transfer and the donor-recipient patterns.
13. The varying use of arms aid and the implications.

### **Paper III(B)**

#### **Research Methodology**

#### **Unit-I- Meaning of scientific Research**

- (a) Scientific Method-Basic assumption
- (b) Steps in Scientific Research

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## **Unit-II-Formulation of Hypothesis**

- (a) Definition and need
- (b) Kinds of hypothesis
- (c) Source of hypothesis (Xypothesis)
- (d) Framing

## **Unit-III- Research Design**

- (a) Survey Research
- (b) Field studies
- (c) Laboratory Experiment
- (d) Sampling

## **Unit-IV-Data Collection and Presentation**

- (a) Methods-Interview, Questionnaire, observation, contents, analysis
- (b) Graphic and Diagrammatic Representation
- (c) Processing of Data Classification, Tabulation, Frequency, Distribution.

## **Unit-V-Analysis & Interpretation of Data**

- (a) Mean, Median, Mode
- (b) Standard Deviation, Correlation
- (c) Verification of Data and writing project Report.

### **A. Introduction**

1. International Law : Definition and Nature
2. Sources of International Law.
3. Codification of International Law
4. Relations between International Law and Municipal Law.

### **B. The Law of Peace**

1. Subject of International Law.

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2. Recognition of States.
3. States-Succession.
4. Intervention
5. Right of Self-defence.
6. State-Territory
7. Sea Piracy and Air Piracy
8. Maritime Laws and conventions; conventions relating to Air Space.
9. Jurisdiction including territorial waters; economic zones; Special problems are : Straits, archipelago etc.
- 10.Nationality.
- 11.Extradition and Asylum
- 12.Diplomatic and Consular Immunities.
- 13.Treaties.
- 14.Delinquencies and State Responsibility.

## **C. Laws of War**

1. Settlement of disputes.
2. War in General, Characteristics of War, The Laws of War. The Belligerents. Enemy Character. effect of out-break of War.
3. Warfare in land violence against enemy persons. Treatment of wounded, the sick and the dead. Captivity, Appropriation and use of enemy public and private property. Destruction of enemy property. Assault, siege and bombardment, espionage Rusea. Occupation of enemy territory.

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4. War at Sea : Men of War. Attack and Seizure of Enemy vessels. Appropriation and destruction of enemy merchant Men. Prize court. Treatment of wounded and ship wrecked.
5. Air Warfare : Military Air Craft. Rules of Air warfare in relation to rules of war on land and at sea. Liability of civil aircraft to capture.
6. Non-hostile relations of belligerents. Truce, capitulation and surrender armistice.
7. Means of securing legitimate warfare : Reprisal, punishment of war crimes. Hostages.
8. Legal controls of international conflict. Attempt to prohibit war (from Pact of Paris to the Charter of the United Nations).
9. Warcrimes, trials.

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## **Paper-I THEORY AND PRACTICE OF WAR 1779 TO DATE**

1. Nature, characteristics and impact of American Revolution and French Revolution on Warfare.
2. Napoleonic Warfare with reference to its interpreters Clausewitz and Jomini.
3. Industrial Revolution and Transformation of War.
4. Economics foundation of Military Power.
5. Social Revolutionary thinkers on war.
6. Strategy, doctrine and weapons systems. Military Organization and policies of France and Germany during the World War I.
7. Appearance of armour—a landmark in the History of Land Warfare.
8. Concept of Air Power.
9. Concept of Sea Power.

### **Part II**

Constitutional and political problems of Military organization and policy 1919-45.

10. Concept of Armoured and mechanized Warfare developed by JPC Faller. Liddell Hart, Guderian Rommel and others during the inter war years and Second World War.
11. Strategy, Doctrine and Tactics during the Second World and Land, Sea and Air.
12. Application of Air Power during the Second World War.
13. Application of Naval Power during the first and Second World Wars with suitable examples.

### **Part-III**

14. Theories of Nuclear Strategy and deterrence.



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15. Strategic Concept: Surprise, Presumption and Stability.
16. Strategic Doctrines : Minimalist and Maxamlalist approach.
17. Emergence of the concepts of:
  - i. Limited War/
  - ii. Insurgency and counter Insurgency.
  - iii. Chemical and Biological Warfare.
  - iv. Ecological and Geophysical Warfare.
  - v. Arms Control and Disarmament.

## Paper-II War And International Relations

1. Approaches to the study of International elations.
  - a. Classical
  - b. Scientific (System, Communication and Decision making).
2. The role of ideology in international relations.
3. Foundation and Limitations of National Power
4. Concept of National interest an its role in the formulation of foreign policy.
5. The theories of Balance of Power and Collective security.
6. Non alignment concept and importance in modern times.
7. Diplomacy : traditional concept and importance in modern times.
8. The birth of new nations Decolonization and the Neocolonialism.
9. Straggle for a new international Economic order (NIEO).
10. International interventions : ideological, political and economic.
11. Arms race, disarmament and arms control.
12. Impact of Nuclear Development in International relations.

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13. The Cold War : Origin, concept and implications.
14. Debate:
  - a. Concept
  - b. U.S. Soviet
  - c. Sino-U.S.
  - d. Recent Development
15. The Sino-Soviet Rift: Causes and Consequence
16. Afro-Asian resurgence in international relations.
17. E.E.C. and Comicon and other manifestations.
18. Indian Ocean : Political and Strategic Developments.
19. Conflict and Cooperation in South Asia : with reference to Pakistan, Bangladesh, Afghanistan, Nepal and Ceylon and role of outside powers.
20. The West Asian conflict.
  - a. Underlying factors
  - b. Role of Super and Major powers with reference to Arab-Israel Conflict and Iran-Iraq conflict.
  - c. Recent development.
21. The War in Indo-China.
  - a. Origin, involvement of outside powers.
  - b. Lessons of the conflict.
22. The emergences of Vietnam and Sino-Vietnamese conflict—Kampuchean Crisis, the role of Asian in South-East Asia.
23. Indian's Foreign Policy; Its foundation and practice.
24. The foreign policies of:
  - a. Pakistan
  - b. China
  - c. USSR
  - d. USAFoundations and Practices.

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## Optional Paper

### Paper-III-DEFENCE ECONOMICS

AIM: To equip the student to critically analyse the economics Problems of Defence and their Management.

1. Introduction
  - a. Contemporary Economic System
  - b. Natural resources in Economic and War Management
  - c. Assessing economic and political condition of the developing and developed countries.
  - d. Role of Technology, Research and Development.
2. General Problem of Optimization.
  - a. Elementary game theory and Linear Programming.
  - b. Cost Benefit Analysis
  - c. Economic and defence Planning : Problem of Defence in relation to Limitation of resources.
  - d. Relation between Defence and Development.
3. Defence Budgeting:
  - a. Simple National Income Analysis
  - b. Determinants of Defence Budget
  - c. Factors influencing Choice and Alternative weapon systems.
  - d. Cost effectiveness in selection of military expansion programmes.
  - e. Economic of Conventional Vs Nuclear Weapon systems.
  - f. Analysis of defence budget in India since 1947.
  - g. Procedure of Defence Budgeting in India.
4. Mobilisation of Resource for Defence:

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## a. Domestic Resources :

### i. Direct Methods

Increasing Duration of working hours, additional employment, controlling vacation time. Wages and income consumption and controls.

ii. Fiscal and monetary methods. Taxation and borrowing and deficit financing.

iii. Economic implications of technical aspects of defence production in India.

## b. Foreign Resources :

i. Role of Private foreign capital.

ii. Role of Foreign capital through government institution.

iii. Problems of imported technology in defence production.

## 5. Industry and Defence in India.

Defence production, organisation and role of Directorate General of Ordnance Factories and various Department Factories. The part played by Private sector and public Sector. The role and range of foreign collaboration. The part played by Research and Development in Defence production Self reliance in defence production.

## 6. War time Mobilization.

a. Priority transfer of resources.

b. Emergency in the nature of the above mentioned problems.

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- c. Techniques of control and rationing with reference to production consumption and distribution.
- 7. Economic Warfare : Its techniques :
  - a. Scope and content of Economic Warfare.
  - b. Denial of resources to the enemy.
  - c. Roles of foreign Aid.
- 8. Effects of War:
  - a. Problems of an inflationary economy.
  - b. The Problems of Balance of payments.
  - c. The danger of exhaustion of economic resource and solution.
- 9.
  - a. Problem of reconstruction and rehabilitation.
  - b. Institutional, technological and industrial development due to war.
- 10. Economic basis of disarmament.

## **Paper-IV-PSYCHOLOGY AND THE ARMED FORCES**

### **1. Psychology and Soldier:**

- a. Dimensions of behaviour, motivational, effective and cognitive process. Relevance of Psychology in Defence problems.
- b. Personnel selection and classification for defence services, use of intelligence tests-Group testing procedures and elementary personality testing.
- c. Application of Principles of Psychology in military training motivation, learning transfer of training Group and individual training.

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- d. Factors in adjustments during army life-defence escape and psychological mechanisms.
- e. Problems of re-adjustment of the ex-soldiers.

## **2. Extranimics:**

- a. Introduction to human engineering.
- b. Machine systems.
- c. Information displays; instrument dial legibility numbers.
- d. Control Devices—Function identification, Residence in control devices—forces and rations.
- e. Problems of display and control.
- f. Man in motion—concept of stress and effect of viratin, noise and acceleration.

## **3. Group Dynamics in Military Life:**

- a. Group : Structure, types and their functions, Formation of Social norms. Group Problem solving.
- b. Leadership : Nature, determinates and techniques of boosting morale, its significance in defence.
- c. Attitude : Attitude organizations, Impact of Military life on the formation of attitudes, Attitudes Change.

## **4. Psychological Warfare:**

- a. Nature type, orgnisation and techniques of Military propoganda.
- b. Structure, Theories and techniques of coercive persuasion. Determinant of brain washing effects.
- c. Psychology of rumour. Nature, techniques and its merits and demerits, impact on war and society.

## **5. Mental disorders of warfare :**

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- a. Mental health and soldier in war.
- b. Psychological disorders and emotional strains imposed by war conversion Hysteria, Anxiety and war neurosis.
- c. Predisposing conditions and methods of treatment.
- d. Impact of nuclear and biological warfare.
- e. Psychological problems of space flight.