

Guru Jambheshwar University of Science & Technology, Hisar

Scheme for Theory + Practical Based Subjects

Guidelines for Scheme of Examination for

DEFENCE STUDIES

The Scheme of Examination of undergraduate (UG) Courses (**Theory-70 marks + Practical-30 marks Based Subjects**) under Faculty of Humanities & Social Sciences run by affiliated degree colleges will be under (50+20) + 30 (External + Internal + Practical) for practical based courses. Pass percentage will be

For the UG courses under Faculty of Humanities & Social Sciences, the guidelines regarding scheme and paper setting will be followed as:

For the end semester examinations regarding practical subjects, nine questions are to be set by the examiner. The candidates shall attempt five questions in all. First question will be compulsory of 10 marks based on the entire syllabus. It will comprise of ten short answer type questions of one mark each. Students are required to attempt any four questions out of remaining eight questions (these eight questions may be (in) up to four units depending on the subject). All remaining questions shall carry equal marks.

Scheme: (50+20) + 30 (External + Internal + Practical)

1st question=10 marks (10 short answer type questions of one marks each)

Rest four questions: 10 marks each i.e. 4 x 10=40

Total = (10+40+20) + 30 = 100 marks

Components of Internal Assessment (Breakdown of 20 marks)

(a) Class Test: 5 marks

(b) Assignment: 5 marks

(c) Participation in Class Discussions: 3 marks

(d) Term Paper/written test/2nd assignment: 5 marks

(e) Attendance: 2 marks*

*Weightage of 2 marks for **Attendance** component out of 20 marks for Internal Assessment shall be available only to those students who attend **75% and more** of classroom lectures and practical. The break-up of marks for **attendance component** for theory + practical papers shall be as under:

(a) 75% and above up to 85%: 01 mark

(b) Above 85%: 02 mark

Guru Jambheshwar University of Science & Technology, Hisar

DEFENCE STUDIES

B.A 1 -Ist Semester (Theory)

PAPER-1: DEFS 101: INTRODUCTION OF DEFENCE STUDIES

<i>Name of Paper/Nomenclature</i>	<i>Max. Marks</i>	<i>Theory</i>	<i>Practical</i>	<i>Internal Assessment</i>	<i>Time</i>
DEFS 101: Introduction of Defence Studies	100	50	30	20	3 Hours

Note: For the end semester examinations, nine questions are to be set by the examiner. The candidates shall attempt five questions in all. First question will be compulsory of 10 marks based on the entire syllabus. It will comprise of ten short answer type questions of one mark each. Students are required to attempt any four questions out of remaining eight questions. All remaining questions shall carry equal marks i.e. 10 marks each.

Contents:

1. Defence studies: Concept, Scope, and Importance.
2. Defence Studies: Its relations with other disciplines –Geography, Economics, Political Science, History, Psychology and Sociology.
3. Meaning and Concept of War, Strategy and Tactic.
4. Principal of War.
5. ABC warfare (Atomic, Biological, or chemical)
6. Defence Mechanism of India.
7. Rank Structure of Armed Forces.

Books Recommended:-

1. J.F.C.Fuller," The Conduct of War: 1789-1961" : A Study of The Impact of The French, Industrial, And Revaluations On War And Its Conduct, Publisher : Da Capo Press; Reprint edition(March22,1992).
2. Carl Von Clausewitz," Principal of war" Army Publication New Delhi (1972).
3. Lallan ji Singh," Art of War in India, 1947 up to date" (Hindi).Parkash BooksDepot,Bareilly,(2003).
4. Col. Ravi Nanda, "Evolution of National Strategy. South Asia Books; 1st edition(December 1987).
- 5.K.S .Sindhu, "War and its Principal." Atlantic(1988).

BA 1 -1ST SEMESTER

Paper-II: DEFS(P) 102: Map Reading (Practical)

Max. Marks: 30

Time: 3 Hours

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

1. Map: Its definition, characteristics, classification, Management Information of Topo-sheet and its utility for Military.
2. Conventional Sign: Military & Geographical.
3. Grid System: Four Figure and Six Figure Map References.
4. Sheet Number: Million Sheets, 'Quarter-Inch Sheets', 'Half-inch Sheet', 'One-inch Sheet' and 'Index of Sheets'.
5. Scale: Definition, Three Methods of representing Scale Inter-Conversion of Statement into R.F. Constructions of Simple Scale Line, Transverse and Diagonal Scale.
6. Strategic/Defence Journalism (Newspaper/Magazines/Internet News Clippings on relevant Defence & Security Topics and a Short Essay of 5 to 10 Pages on the basis of Clippings) to be produced.
7. Methods of Finding North Direction.
8. Liquid Prismatic Compass – Functions of its various Parts and the following exercises on the Prismatic Compass.
 - a. To determine magnetic North by Compass.
 - b. Setting the MAP by Compass.
 - c. To find out the bearing of a point from other situation on the ground.
 - d. To determine own's and enemy's position on the map Resection and Inter-Section Method with the help of Compass.
9. Rank Structure of Armed Forces.

Guru Jambheshwar University of Science & Technology, Hisar

DEFENCE STUDIES B.A 1 - IInd Semester (Theory) PAPER 1: DEFS 103: MILITARY PSYCHOLOGY

<i>Name of Paper/Nomenclature</i>	<i>Max. Marks</i>	<i>Theory</i>	<i>Practical</i>	<i>Internal Assessment</i>	<i>Time</i>
DEFS 103: Military Psychology	100	50	30	20	3 Hours

Note: For the end semester examinations, nine questions are to be set by the examiner. The candidates shall attempt five questions in all. First question will be compulsory of 10 marks based on the entire syllabus. It will comprise of ten short answer type questions of one mark each. Students are required to attempt any four questions out of remaining eight questions. All remaining questions shall carry equal marks i.e. 10 marks each.

Contents:

1. Military Psychology: Development; Function 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.
2. Fatigue: Causes and Remedy.
3. Motivation: Kinds, Motivation during War.
4. Aptitude and Morale: Factors influencing Morale, Maintenance of Morale during War and Peace.
5. Tools of Psychological Warfare :
 - Brain Washing
 - Rumor
 - Propaganda, Its Types and Techniques.
 - Indoctrination and Coercive Persuasion.
6. Military Leadership: Traits, Types and Qualities.
7. Discipline and Man-Management.

Books Recommended:

1. Tiwari, N.P.Tiwari, Sainya Manovigyan (Hindi), Chandar Prakash and Company, Harpur (UP), (2006).
2. E.G. Boring, Psychology in the Armed Forces, Natraj Publishers, Dehradun.
3. Norman Copeland, Psychology and the Soldier, Kessinger Publishing, LLC (September 10, 2010).
4. Raj Narain, Military Psychology, Bhargva Book Deport, Agra (2004),
5. Dr.Parshu Ram Gupta, Sainya Manovigyan (Hindi), Parkash Book Depot, Bareli (2008).
6. Major Harnaraina, Psychology for Fighting Man”, English Book Depot, Dehradun.
7. Nidhi Maheshwari, Military Psychology (Sanay Manovigyan) Raj Publication, 2013.
8. Kailash Nath Parwki, Sainik Manovigyan (Hindi), Rajkamal Publicateion, New Delhi (1978).

BA 1 -2ND SEMESTER

Paper-II : DEFS(P) 104: Map Reading (Practical)

Max. Marks: 30
Time: 3 Hours

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

1. Bearing and Inter – Conversion of Bearing, in detail.
2. Determination of Individual Compass Error (ICE).
3. Service Protector: Its types and Uses.
4. Short Presentation or Lecture, Topic is given by the Concerned Teacher.
5. Finding Position on the Gridded Map by Intersection Method and Resection Method.
6. Relief Feature and their representation on the map.
7. Gradient and Slope in Degrees.
8. To determine Inter-Visibility between two points; Gradient method, Sum proportion method and Section drawing method.
9. Enlargement and Reduction of Maps.

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Scheme: (50+20) + 30 (External + Internal + Practical)
1 st question=10 marks (10 short answer type questions of one marks each)
Rest four questions: 10 marks each i.e. 4 x 10=40
Total = (10+40+20) + 30 = 100marks

Components of Internal Assessment (Breakdown of 20 marks)	
(a)	Class Test: 5 marks
(b)	Assignment: 5 marks
(c)	Participation in Class Discussions: 3 marks
(d)	Term Paper/written test/2 nd assignment: 5 marks
(e)	Attendance: 2 marks*

*Weightage of 2 marks for **Attendance** component out of 20 marks for Internal Assessment shall be available only to those students who attend **75% and more** of classroom lectures and practical. The break-up of marks for **attendance component** for theory + practical papers shall be as under:

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- (b) Above 85%: 02 mark

Guru Jambheshwar University of Science & Technology, Hisar

Defence Studies

B.A. IInd Year 3rd & 4th Semester

Scheme of Examination

(w.e.f. the academic session 2019-20)

3rd Semester

Paper No.	Paper Code	Nomenclature of Paper	Periods per Week	External Marks	Internal Marks	Practical	Total Marks	Time
Paper-A Theory	DEFS 201	National Security-I	6	50	20	---	70	3Hrs
Paper-B Practical	DEFS (P)202	Elementary Tactics upto Infantry Platoon Level	6	—	—	30	30	3Hrs

4th Semester

Paper No.	Paper Code	Nomenclature of Paper	Periods per Week	External Marks	Internal Marks	Practical	Total Marks	Time
Paper-A Theory	DEFS 203	National Security-II	6	50	20	---	70	3Hrs
Paper-B Practical	DEFS(P)204	Elementary Tactics upto Infantry Platoon Level	6	—	—	30	30	3Hrs

Guru Jambheshwar University of Science & Technology, Hisar

Defence Studies

B.A. IInd Year 3rd Semester

PAPER-A (THEORY)

DEFS 201 : National Security-I

(w.e.f. the academic session 2019-20)

Maximum Marks :70

External Marks :50

Internal Assessment: 20

Time : 3 hours

Note:

1. The question paper will consist of *nine* questions. The candidate shall attempt *five* questions in all. The Question No. 1 will be *compulsory*. The Candidate shall attempt *four* more questions selecting at least *one* from each Unit. The paper will carry 70 marks out of which 20 marks will be earmarked for internal assessment.
2. The **Compulsory Question No.1** will be short answer type questions containing *ten* questions of equal marks (i.e., 1 marks each) spread over the whole syllabus. Other questions will carry the 10 marks each.

1. Meaning of National Defence and Security

2. Essentials of National Defence:

(a) Geographical factors – Location, Frontiers, Terrain, Climate.

(b) Economic Factors – Resources, Industrial and Scientific Development, Transport and Communication.

(c) International Political Conditions.

(d) Defence Mechanism of Modern State.

3. India's Defence Problem in 21st century.

4. India's Defence Policy.

5. Nuclear Policy of India.

6. Civil Military Relations of India.

7. Civil Defence:

8. Military Aid to Civil Administration.

9. War Finance Taxation, Borrowing and Inflation.

10. Cost of War.

11. Economic Mobilization in War.

Guru Jambheshwar University of Science & Technology, Hisar

Defence Studies

B.A. IInd Year 3rd Semester

PAPER-B (PRACTICAL) DEFS (P) 202 : Elementary Tactics upto Infantry Platoon Level
(w.e.f. the academic session 2019-20)

Maximum Marks :30

Practical Test :20 Marks

Practical Record :05 Marks

Viva-Voce :05 Marks

Time :3 hours

1. Sand Model Meaning, Importance and Preparing.
2. Detailed Study of an infantry Platoon including Organisation, Weapons and Equipments.
3. Study of Field Crafts with references to the following:
(a) Ground (b) Cover (c) Camouflage (d) Concealment (e) Observation
4. Application of Fire-Fire Control and Fire Control orders.
5. Practical Formations-Section and Platoon.
6. Verbal Orders.
7. Write a on the spot 400-800 words Essay on any one Topics of the Contemporary and Current Strategic Issues related with Internal Security of India.

Guru Jambheshwar University of Science & Technology, Hisar

Defence Studies

B.A. IInd Year 4th Semester

PAPER-A (THEORY)

DEFS 203 : National Security-II

(w.e.f. the academic session 2019-20)

Maximum Marks :70 Marks

External Marks :50 Marks

Internal Assessment : 20 Marks

Time: 3 hours

Note:

1. The question paper will consist of *nine* questions. The candidate shall attempt *five* questions in all. The Question No. 1 will be *compulsory*. The Candidate shall attempt *four* more questions selecting at least *one* from each Unit. The paper will carry 70 marks out of which 20 marks will be earmarked for internal assessment.
2. The **Compulsory Question No.1** will be short answer type questions containing *ten* questions of equal marks (i.e., 1 marks each) spread over the whole syllabus. Other questions will carry the 10 marks each.

- 1) India's Maritime Strategy and Navel Security
- 2) India's Foreign Policy and India's Security
- 3) India's Security Threats :
 - a) Internal Security Threats
 - b) External Security Threats
- 4) International Strategic Environment in Post-Cold War period
- 5) Terrorism and India's National Security
- 6) National Security Council of India (NSC)
- 7) India's Relations with
 - a. Pakistan
 - b. China
 - c. Bangladesh
 - d. Sri Lanka
 - e. Nepal
 - f. Afghanistan
 - g. Myanmar
 - h. USA
 - I. Russia

Guru Jambheshwar University of Science & Technology, Hisar

Defence Studies

B.A. IInd Year 4th Semester

PAPER-B (PRACTICAL) DEFS (P) 204 : Elementary Tactics upto Infantry Platoon Level

(w.e.f. the academic session 2019-20)

Maximum Marks :30

Practical Test :20 Marks

Practical Record :05 Marks

Viva-Voce :05 Marks

Time :3 hours

1. Patrols – Types and Stages of Patrolling
2. Battle Procedure
3. Military Appreciation of a situation in attack and Defence.
4. Platoon in attack – Types, principles of attack, stage of attack, Battle Craft for platoon in attack and platoon attack exercises.
5. Platoon Defence Types, Principles of Defence, Defence operation.
6. Military Message writing.
7. Ambush – Organisation of ambush party, Ambush operation.
8. Lecture on any theory topics.

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(b)	Assignment: 5 marks
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Defence Studies

B.A. IIIrd Year

5th& 6th Semester Scheme of Examination

(w.e.f. the academic session 2020-21)

5th Semester

Paper No.	Paper Code	Nomenclature of Paper	Periods per Week	External Marks	Internal Marks	Practical	Total Marks	Time
Paper-A Theory	DEFS 301	Science & Technology in War	6	50	20	---	70	3Hrs
Paper-B Practical	DEFS (P)302	Science & Technology in War	6	--	--	30	30	3Hrs

6th Semester

Paper No.	Paper Code	Nomenclature of Paper	Periods per Week	External Marks	Internal Marks	Practical	Total Marks	Time
Paper-A Theory	DEFS 303	Military Geography	6	50	20	---	70	3Hrs
Paper-B Practical	DEFS(P) 304	Military Geography	6	--	--	30	30	3Hrs

Guru Jambheshwar University of Science & Technology, Hisar

Defence Studies

B.A. IIIrd Year 5th Semester

PAPER-A (THEORY) DEFS 301 : Science & Technology in War

(w.e.f. the academic session 2020-21)

Maximum Marks :70

External Marks :50

Internal Assessment: 20

Time : 3 hours

Note:

1. The question paper will consist of **nine** questions. The candidate shall attempt **five** questions in all. The Question No. 1 will be **compulsory**. The Candidate shall attempt four more questions selecting at least one from each Unit. The paper will carry 70 marks out of which 20 marks will be earmarked for internal assessment.
2. The **Compulsory Question No.1** will be short answer type questions containing **ten** questions of equal marks (i.e., 1 marks each) spread over the whole syllabus. Other questions will carry the 10 marks each.

Theory

1. Science and Technology: Definition and concept.
2. Emerging Technology and its impact and weapons.
3. Electronic warfare : Concept and application.
4. RADAR and its significance, Basic types application.
5. Information Technology and its impact on warfare
 - (i) Communication Tech (ii) Military Tech.
6. DRDO : Its role in weapons development
 - (a) Armoured Vehicles : Tanks and APC's (b) Aircraft UAV's (c) Submarine and Aircraft Carrier
 - (d) Missiles : Range, Introductions, Parts and Specification (Prithvi, Brahmos, Agni, K – 4 , SLBM)
7. Cyber Warfare / Security
 - (i) Introduction to cyber Technology, Network, LAN, WAN
 - (ii) Types of Cyber Crime : Hacking, Password Crack, Theft etc.
 - (iii) Impact of Cyber Crimes on National Security, Impact of Cyber Crime on Armed Forces, National Economy / Market and Citizen Security.
 - (iv) Cyber Law : National Cyber Security policy 2013
8. India 's position in Science and Technology : War Technology and development .
9. Science and Technology Policy of India.
10. Revolution in Military Affairs: Introduction brief History, Information technology and RMA Economic Consequences Critical Analysis.

Guru Jambheshwar University of Science & Technology, Hisar

Defence Studies

B.A. IIIrd Year 5th Semester

PAPER-B (PRACTICAL)

DEFS (P) 302 : Science & Technology in War

(w.e.f. the academic session 2020-21)

Maximum Marks :30

Practical Test :20 Marks

Practical Record :05 Marks

Viva-Voce :05 Marks

Time :3 hours

1. IT: Network LAN, WAN, Military sensor etc.
2. RADAR and its signification, Types, Posts
3. Electronic Warfare in terms of Lasers, ECM, ECCM
4. Cyber Security : Information, Images, Techniques of cyber Attack
5. Ballistic Missiles : SSM, SAM, SLBM, SRBM, IRBM, ICBM,
6. Project Report / Field visit
7. Space technology: Various Satellite in space for military use, Military importance of Satellite, characteristics of Military Satellite.

Guru Jambheshwar University of Science & Technology, Hisar

Defence Studies

B.A. IIIrd Year 6th Semester

PAPER-A (THEORY)

DEFS 303 : Military Geography

(w.e.f. the academic session 2020-21)

Maximum Marks :70 Marks

External Marks :50 Marks

Internal Assessment : 20 Marks

Time: 3 hours

Note:

1. The question paper will consist of **nine** questions. The candidate shall attempt **five** questions in all. The Question No. 1 will be **compulsory**. The Candidate shall attempt four more questions selecting at least one from each Unit. The paper will carry 70 marks out of which 20 marks will be earmarked for internal assessment.
2. The **Compulsory Question No.1** will be short answer type questions containing **ten** questions of equal marks (i.e., 1 marks each) spread over the whole syllabus. Other questions will carry the 10 marks each.

1. Meaning, Nature and Scope of Military Geography.
2. Elements of Military Geography : -
(i) Size (ii) Shape (iii) Location (iv) Climate (v) Topography (vi) Population
3. India and its Geo- strategic significance.
4. Geographical divisions of India's borders.
5. Geo-strategic importance of Indian Ocean.
6. Maritime interest of India in Indian Ocean.
7. Geographical Information System (GIS) : Introduction Definitions and significance.
8. Global Positioning System (GPS) Introduction, Scope & Concept.
9. Remote Sensing and National Security
(a) Basic Principles of Remote sensing
(b) Aerial Photography:Definition, Scope, Application Image System etc.
10. Disaster Management :- Concept & Significance
(a) Natural Disaster (b) Man-made Disastern(c) National Disaster Management Policy of India
11. Conflict Resolution and peace Building Measures.

Guru Jambheshwar University of Science & Technology, Hisar

Defence Studies

B.A. IIIrd Year 6th Semester

PAPER-B (PRACTICAL)

DEFS (P) 304 : Military Geography

(w.e.f. the academic session 2020-21)

Maximum Marks : 30 Marks

Practical Test :20 Marks

Practical Record :05 Marks

Viva-Voce :05 Marks

Time :3 hours

1. Indian Physical Map
2. Indian Political Map
3. Indians' Border Map
4. India's Maritime Border Map.
5. Geographical Information System (GIS).
6. Global Positioning System (GPS).
7. Demarkation of Principal Point, Conjugate Principal Point and Flight line of aerial photograph.
8. Interpretation & Application of Remote Sensing for Military uses.
9. Interpretation of Single Vertical Photographs.
Use of the Stereoscope Identification of Features
10. Identification of features (different Topography) on IRSID, LISS III imagery (Mark Copy of FCC)
11. Disaster Management :
 - (A) Natural :- Earthquake, Sunami, Volcano, Flood etc.
 - (B) Manmade