

(Rupees Two hundred and five only) excluding applicable taxes and charges through online mode by using net banking or by using Visa/ Master/ RuPay Credit/ Debit Card/ UPI. **Admit card will be issued for the examination only to those candidates who have successfully paid the examination fee or who are entitled to waiver of examination fee.**

**Note:**

(a) Fee once paid shall not be refunded under any circumstances nor can the fee be held in reserve for any other examination or selection.

(b) In case you have made an online payment of fees and money has been deducted from your account without admit card being generated (i.e unsuccessful payment), please wait for 7 working days for automatic refund of money to your account.

9. **Examination Centre.** The list of examination cities for different states have been indicated in the filling instructions and options for choice is made available in the application form. The candidates are to choose any three choice of city from the list. The Indian Navy reserves the right to cancel/ re-conduct examination for a particular centre or allot/ change the city of the candidate beyond the choices indicated by the candidates for administrative or other reasons. In case of more number of candidates applying for one city, a few candidates may be allotted to any other city. Request for change of examination city/centre/date/session will not be entertained under any circumstances.

10. **Mode of Selection.**

(a) **Screening of Applications.** Indian Navy will screen all applications registered online, as per eligibility criteria and terms and conditions specified by Government of India from time to time. Merely fulfilling the basic selection criteria does not automatically entitle a person/applicant to be called for the online test.

(b) **Scheme of Written Examination.** All shortlisted/eligible candidates will have to appear in the online computer based examination (Discipline wise) consisting of 100 objective type questions based on syllabus as appended below:-

(c) **Syllabus for Chargeman (Mechanic).**

(i) <b>Section I – General Knowledge/ Awareness</b>		
<b><u>Sr No</u></b>	<b><u>Topic Name</u></b>	<b><u>Sub-Topic Name</u></b>
(aa)	Economics	Basic definition of economics
		Current Economic Scenario
(ab)	Geography	Basic Indian Geography
(ac)	Political Science	Basics of Indian Constitution
(ad)	Current Affairs	Sports & Entertainment
		Defence Updates
		Eminent Personalities(Indian)
		Capitals/Currencies
		Indian Politics

	Important International/ National Facts
<b>Reference/Source</b> <ul style="list-style-type: none"> <li>Manorama Year Book</li> <li>Daily Newspaper</li> <li>General Knowledge 2019 books by various authors/publications</li> </ul>	

(ii) <b>Section II-Quantitative Aptitude / Logical Reasoning</b>		
<b>Sr No</b>	<b>Topic Name</b>	<b>Sub-Topic Name</b>
(aa)	Basic Mathematics	Quadratic Equations
		Logarithm & Mathematical Table
		Basic concept of vectors and its numerical
(ab)	Time & Work	Basic Question-Pipes, Cisterns
(ac)	Time & Distance	Average Speed & Relative Speed
		Trains & Platforms
(ad)	Elementary Statistics & Probability	Calculation of Mean, Mode & Median
		Numerical on Probability
		Data Analysis
		Control Charts
(ae)	Trigonometry	Trigonometric Ratios
		Complementary Angles
(af)	Matrix Algebra	Calculation of inverse and Eigen values
(ag)	Area and Volume	Calculation for pyramid, cone, sphere, cylinder etc, with problems
(ah)	Problem Solving	Blood relations
		Directions
		Arrangements
(aj)	Non verbal reasoning	Embedded figure
		Matrix
		Trends
(ak)	Coding/Decoding	Number based coding
<b>Reference/Source</b> <ul style="list-style-type: none"> <li>NCERT Mathematics Books</li> <li>Teach Yourself Quantitative Aptitude by Arun Sharma</li> <li>Quantitative Aptitude by RS Agarwal</li> </ul>		

(iii) <b>Section III-General English</b>		
<b>Sr No</b>	<b>Topic Name</b>	<b>Sub-Topic Name</b>
(aa)	Basic Grammar	Tenses
		Change to active/passive voice
		Correction of sentences
		Punctuation, Determines



		Use of adjectives, verbs, pronouns and prepositions
(ab)	Vocabulary	One word substitution
		Spelling correction
		Synonyms
(ac)	Passage	Questions based on passage
		Shuffling of Sentence Parts
<b>Reference/Source</b>		
<ul style="list-style-type: none"><li>• English Grammar- Wren and Martin</li><li>• Instant Vocabulary – Ida Ehrlich</li><li>• NCERT English Text books till Class X<sup>th</sup></li><li>• Objective General English by SP Bakshi</li></ul>		

(iv) <b>Section IV -Applied Science &amp; Specialisation</b>		
<b>Sr No</b>	<b>Topic Name</b>	<b>Sub-Topic Name</b>
(aa)	Physics	Newton's laws of motion
		Archimedes Principle
		Numerical on Work, Power, Friction and Force
		Laws of Electricity & Magnetism
		Numerical on current, voltage, resistance
		Elasticity, Surface tension, Viscosity
		Projectile motion concept and numericals
(ab)	Applied Science/ Specialisation	Laws of thermodynamics and Carnot cycle
		Concepts of Engg Drawing- First angle, Third angle and isometric projection
		Concepts of limits, fits and tolerances
		Basics of Workshop technology – Lathe machining, Drilling, grinding, shaping, plotting, etc.
		Concepts of Heat Treatment, corrosion treatment and case hardening
		Corrosion and its preventive measures
		Properties of ferrous and nonferrous materials
(ac)	Miscellaneous	Working principles of semiconductors, diode, electric motors and transformers
		Basic principle of Arc welding and gas welding
		Concepts of Ph Value, Calorific value, Flash point and Fire Point and their measurement techniques
		Classification and application of turbines, boilers and compressors
		Classification, purpose and principles of heat treatment
		Fire safety and precautions
		Types of fire extinguishers and their end use
(ac)	Miscellaneous	Working knowledge on computers
		Concepts- Quality Control, Quality Assurance and Total Quality Management

(iv) <b>Section IV -Applied Science &amp; Specialisation</b>		
<b>Sr No</b>	<b>Topic Name</b>	<b>Sub-Topic Name</b>
		Working knowledge on precision measuring instruments
		Quality Standards(ISO),Sampling Plans
		Units, Least count of measurement-Numericals
<b>Reference/Source</b>		
<ul style="list-style-type: none"> <li>• NCERT Books on Physics and Chemistry till X<sup>th</sup> Class</li> <li>• Production Technology by Dr P C Sharma</li> <li>• Workshop Technology by S K Hajra Choudhury</li> <li>• Engg Thermodynamics by Pandey &amp; Choudhary</li> <li>• Fundamentals of Computer by V Rajaraman</li> <li>• Open source literature</li> </ul>		

(d) **Syllabus for Chargeman (Ammunition and Explosive).** The detailed syllabus is available at Naval Website [www.joinindiannavy.gov.in](http://www.joinindiannavy.gov.in) under filling instructions. Indicative syllabus is as follows:-

(i) <b>Section I – General Knowledge/ Awareness</b>		
<b>Sr No</b>	<b>Topic Name</b>	<b>Sub-Topic Name</b>
(aa)	Economics	Basic definition of economics
		Current Economic Scenario
(ab)	Geography	Basic Indian Geography
(ac)	Political Science	Basics of Indian Constitution
(ad)	Current Affairs	Sports & Entertainment
		Defence Updates
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		Capitals/Currencies
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(ii) <b>Section II-Quantitative Aptitude /Logical Reasoning</b>		
<b>Sr No</b>	<b>Topic Name</b>	<b>Sub-Topic Name</b>
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		Logarithm & Mathematical Table
		Basic concept of vectors and its numerical
(ab)	Time & Work	Basic Question-Pipes, Cisterns
(ac)	Time & Distance	Average Speed & Relative Speed
		Trains & Platforms
(ad)	Elementary	Calculation of Mean, Mode & Median



	Statistics & Probability	Numerical on Probability
		Data Analysis
		Control Charts
(ae)	Trigonometry	Trigonometric Ratios
		Complementary Angles
(af)	Matrix Algebra	Calculation of inverse and Eigen values
(ag)	Area and Volume	Calculation for pyramid, cone, sphere, cylinder etc, with problems
(ah)	Problem Solving	Blood relations
		Directions
		Arrangements
(aj)	Non verbal reasoning	Embedded figure
		Matrix
		Trends
(ak)	Coding/Decoding	Number based coding
<b>Reference/Source</b>		
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<b>Sr No</b>	<b>Topic Name</b>	<b>Sub-Topic Name</b>
(aa)	Basic Grammar	Tenses
		Change to active/passive voice
		Correction of sentences
		Punctuation, Determines
		Use of adjectives, verbs, pronouns and prepositions
(ab)	Vocabulary	One word substitution
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(aa)	Physics	Newton's laws of motion
		Archimedes Principle
		Numerical on Work, Power, Friction and Force

(iv) <b>Section IV -Applied Science &amp; Specialisation</b>		
<b>Sr No</b>	<b>Topic Name</b>	<b>Sub-Topic Name</b>
(ab)	Applied Science/ Specialisation	Laws of Electricity & Magnetism
		Numerical on current, voltage, resistance
		Elasticity, Surface tension, Viscosity
		Projectile motion concept and numericals
		Laws of thermodynamics and Carnot cycle
		Basics of inorganic chemistry
		Kinetic Theory of gases, Charles law, Boyle's law'
		Thermal Conductivity, Fourier's law of heat conduction
		Conduction, Convection, Radiation concepts
		Corrosion and its preventive measures
(ac)	Miscellaneous	Partial pressure and Vapour pressure
		Organic Chemistry-types of polymers with examples
		Chemical Equation Balancing
		Concepts of Ph Value, Calorific value, Flash point and Fire Point and their measurement techniques
		Methods of measuring of Calorific value, Ph Value & Flash point
		Classification, purpose and principles of heat treatment
		Fire safety and precautions
		Types of fire extinguishers and their end use
		Working knowledge on computers
		Concepts- Quality Control, Quality Assurance and Total Quality Management
		Working knowledge on precision measuring instruments
		Quality Standards(ISO), Sampling Plans
		Units, Least count of measurement-Numericals
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(d) **Date of Examination.** Exact date, time and venue of online test will be communicated to the shortlisted candidates on registered mobile phone number/e-mail ID. Websites [www.joinindiannavy.gov.in](http://www.joinindiannavy.gov.in) and [www.indiannavy.nic.in](http://www.indiannavy.nic.in) may also be referred from time-to-time for any further instructions.

(e) **Provisional Appointment Letter.** The appointment of provisionally selected candidates will be strictly based on their relative merit position in written examination subject to verification of documents, Medical Examination and other requirements as specified by the Government of India and Appointing Authority.