

# ISI QROR ROADMAP(BY [BELAL AHMED SIDDIQUI](#))

ALL RESOURCES ARE AVAILBLE ON TELEGRAM GROUP|

Important topics for MMA are Complex numbers, Linear Algebra, Calculus, Straight Line, Circle, Sequence of real numbers, Infinite series, P and C , Probability, Binomial Thoerem.

[The topics important for PQB Maths are P and C, Divisibility and Prime number, Binomial Theorem, Properties of triangles, Differential equation, Function, Limit, Continuity, Linear Algebra] Link to more resources: <https://medium.com/isi-entrance-preparation/> |

TOPIC	LINK	PRACTICE
Before starting this roadmap, read this: <a href="https://medium.com/isi-entrance-preparation/how-to-prepare-isi-qr-or-mma-mathematics-144283b0db21">https://medium.com/isi-entrance-preparation/how-to-prepare-isi-qr-or-mma-mathematics-144283b0db21</a> , <a href="https://medium.com/isi-entrance-preparation/how-to-study-for-engineering-fa">https://medium.com/isi-entrance-preparation/how-to-study-for-engineering-fa</a>		
Previous Year : <a href="https://mathsmerizing.com/isi-m-tech-qr-or/">https://mathsmerizing.com/isi-m-tech-qr-or/</a>		
Link to syllabus: <a href="https://www.isical.ac.in/~admission/IsiAdmission/PreviousQuestion/Questions-MCQ-T">https://www.isical.ac.in/~admission/IsiAdmission/PreviousQuestion/Questions-MCQ-T</a> <a href="http://www.isical.ac.in/~admission/IsiAdmission/Syllabus/MTech_QROR_Syllabus-2023.pdf">http://www.isical.ac.in/~admission/IsiAdmission/Syllabus/MTech_QROR_Syllabus-2023.pdf</a>		

IF KNOW THE CONCEPTS THEN GO FOR ONE SHOT VIDEOS: <https://www.youtube.com/playlist?list=PLh8L7BdhccOvDJm9Jpmrd08ejk0>

Orange means very important		
INEQUALITIES	<a href="https://www.youtube.com/watch?v=DYh1xBWnDYU">https://www.youtube.com/watch?v=DYh1xBWnDYU</a>	SOLVE INEQUALITIES QUESTION FROM TELEGRAM GROUP FROM A PDF NAMED 4-INEQUALITY QUESTION LINK TO TELEGRAM: <a href="https://t.me/isiqrqr">https://t.me/isiqrqr</a>
PROGRESSIONS	<a href="https://www.youtube.com/watch?v=beKPDpV3uk&amp;list=PLbu_fGTOMPsuW3">https://www.youtube.com/watch?v=beKPDpV3uk&amp;list=PLbu_fGTOMPsuW3</a>	CENGAGE ALGEBRA G TEWANI PDF FROM TELEGRAM(SOLVED EXAMPLE ONLY)
BINOMIAL THEOREM	<a href="https://www.youtube.com/watch?v=4fw1xCWFFhl&amp;list=PLbu_fGTOMPsuW3">https://www.youtube.com/watch?v=4fw1xCWFFhl&amp;list=PLbu_fGTOMPsuW3</a>	CENGAGE ALGEBRA G TEWANI PDF FROM TELEGRAM
SET THEORY	<a href="https://www.youtube.com/watch?v=pxYCuWEpujA">https://www.youtube.com/watch?v=pxYCuWEpujA</a>	TOMATO BOOK OF ISI(AVAILABLE ON TELEGRAM)
RELATION	<a href="https://www.youtube.com/watch?v=pxYCuWEpujA">https://www.youtube.com/watch?v=pxYCuWEpujA</a>	TOMATO BOOK OF ISI(AVAILABLE ON TELEGRAM)
MATRIX AND DETERMINANT	<a href="https://www.youtube.com/watch?v=2UQOKI_BimU&amp;list=PLbu_fGTOMPsuW3">https://www.youtube.com/watch?v=2UQOKI_BimU&amp;list=PLbu_fGTOMPsuW3</a>	CENGAGE ALGEBRA G TEWANI PDF FROM TELEGRAM
STRAIGHT LINE	<a href="https://www.youtube.com/watch?v=xzWZlWJzses">https://www.youtube.com/watch?v=xzWZlWJzses</a>	ARIHANT CO ORDINATE GEOMETRY AVAILABLE ON TELEGRAM
CIRCLE	<a href="https://www.youtube.com/watch?v=3HR0F9IUdz0">https://www.youtube.com/watch?v=3HR0F9IUdz0</a>	ARIHANT CO ORDINATE GEOMETRY AVAILABLE ON TELEGRAM
FUNCTION	<a href="https://www.youtube.com/watch?v=xktPfmnzUB8&amp;list=PLbu_fGTOMPsuW3">https://www.youtube.com/watch?v=xktPfmnzUB8&amp;list=PLbu_fGTOMPsuW3</a>	ARIHANT DIFFERENTIAL CALCULUS.PDF AVAILABLE ON TELEGRAM
LIMIT	<a href="https://www.youtube.com/watch?v=iQwHvRAEk90&amp;list=PLbu_fGTOMPsuW3">https://www.youtube.com/watch?v=iQwHvRAEk90&amp;list=PLbu_fGTOMPsuW3</a>	ARIHANT DIFFERENTIAL CALCULUS.PDF AVAILABLE ON TELEGRAM
CONTINUITY	<a href="https://www.youtube.com/watch?v=9JfotcyhTGA&amp;list=PLbu_fGTOMPsuW3">https://www.youtube.com/watch?v=9JfotcyhTGA&amp;list=PLbu_fGTOMPsuW3</a>	ARIHANT DIFFERENTIAL CALCULUS.PDF AVAILABLE ON TELEGRAM
DIFFERENTIABILITY	<a href="https://www.youtube.com/watch?v=5yHNE-_-1RQ&amp;list=PLbu_fGTOMPsuW3">https://www.youtube.com/watch?v=5yHNE-_-1RQ&amp;list=PLbu_fGTOMPsuW3</a>	ARIHANT DIFFERENTIAL CALCULUS.PDF AVAILABLE ON TELEGRAM
DIFFERENTIATION	<a href="https://www.youtube.com/watch?v=DpmP758YP9o&amp;list=PLbu_fGTOMPsuW3">https://www.youtube.com/watch?v=DpmP758YP9o&amp;list=PLbu_fGTOMPsuW3</a>	ARIHANT DIFFERENTIAL CALCULUS.PDF AVAILABLE ON TELEGRAM
AOD	<a href="https://www.youtube.com/watch?v=IJm4-IMh0&amp;list=PLbu_fGTOMPsuW3">https://www.youtube.com/watch?v=IJm4-IMh0&amp;list=PLbu_fGTOMPsuW3</a>	ARIHANT DIFFERENTIAL CALCULUS.PDF AVAILABLE ON TELEGRAM
INDEFINITE INTEGRAL	<a href="https://www.youtube.com/watch?v=i5hUQVwtoc&amp;list=PLbu_fGTOMPsuW3">https://www.youtube.com/watch?v=i5hUQVwtoc&amp;list=PLbu_fGTOMPsuW3</a>	ARIHANT INTEGRAL CALCULUS.PDF AVAILABLE ON TELEGRAM
DEFINITE INTEGRAL	<a href="https://www.youtube.com/watch?v=tsj_Fpw9uP8&amp;list=PLbu_fGTOMPsuW3">https://www.youtube.com/watch?v=tsj_Fpw9uP8&amp;list=PLbu_fGTOMPsuW3</a>	ARIHANT INTEGRAL CALCULUS.PDF AVAILABLE ON TELEGRAM
AREA UNDER CURVE	<a href="https://www.youtube.com/watch?v=6TQ1U3R0UE&amp;list=PLbu_fGTOMPsuW3">https://www.youtube.com/watch?v=6TQ1U3R0UE&amp;list=PLbu_fGTOMPsuW3</a>	ARIHANT INTEGRAL CALCULUS.PDF AVAILABLE ON TELEGRAM
PERMUTATION AND COMBINATION	<a href="https://www.youtube.com/watch?v=qw8OF2UpTnk&amp;list=PLbu_fGTOMPsuW3">https://www.youtube.com/watch?v=qw8OF2UpTnk&amp;list=PLbu_fGTOMPsuW3</a>	CENGAGE ALGEBRA G TEWANI PDF FROM TELEGRAM
THEORY OF EQUATION	<a href="https://www.youtube.com/watch?v=rx8chAgXwhs&amp;list=PLbu_fGTOMPsuW3">https://www.youtube.com/watch?v=rx8chAgXwhs&amp;list=PLbu_fGTOMPsuW3</a>	CENGAGE ALGEBRA G TEWANI PDF FROM TELEGRAM
COMPLEX NUMBER	<a href="https://www.youtube.com/watch?v=1htvTPHTS4&amp;list=PLbu_fGTOMPsuW3">https://www.youtube.com/watch?v=1htvTPHTS4&amp;list=PLbu_fGTOMPsuW3</a>	CENGAGE ALGEBRA G TEWANI PDF FROM TELEGRAM
NUMBER THEORY	<a href="https://www.youtube.com/watch?v=FAmvFm8ELgY&amp;list=PLIDpKxpqzb0HkK">https://www.youtube.com/watch?v=FAmvFm8ELgY&amp;list=PLIDpKxpqzb0HkK</a>	TOMATO BOOK OF ISI(AVAILABLE ON TELEGRAM)
LINEAR ALGEBRA	<a href="https://www.youtube.com/playlist?list=PLKS72MKnbPrT-Gy4k0r8JA0mX2K3">https://www.youtube.com/playlist?list=PLKS72MKnbPrT-Gy4k0r8JA0mX2K3</a>	DETERMINANTS AND MATRICES CHAPTER FROM BOOK HK DAS ON TELEGRAM
PARABOLA(not very imp)	<a href="https://www.youtube.com/watch?v=LsYvJc56yag">https://www.youtube.com/watch?v=LsYvJc56yag</a>	ARIHANT CO ORDINATE GEOMETRY BOOK(most questions are usually asked from straight line and circle)
ELLIPSE(not very imp)	<a href="https://www.youtube.com/watch?v=8asqPexZyc">https://www.youtube.com/watch?v=8asqPexZyc</a>	ARIHANT CO ORDINATE GEOMETRY BOOK(most questions are usually asked from straight line and circle)
HYPERBOLA(not very imp)	<a href="https://www.youtube.com/watch?v=Es6loDaltuU">https://www.youtube.com/watch?v=Es6loDaltuU</a>	ARIHANT CO ORDINATE GEOMETRY BOOK(most questions are usually asked from straight line and circle)
SEQUENCES AND ITS PROPERTIES	<a href="https://www.youtube.com/playlist?list=PL_QIQEralweFvIVDFu_oTAgNvXUie">https://www.youtube.com/playlist?list=PL_QIQEralweFvIVDFu_oTAgNvXUie</a>	BS GREWAL UNIT 3 SERIES(AVAILABLE ON TELEGRAM)
	<a href="https://www.youtube.com/playlist?list=PL_QIQEralweE0Twx6FckIEbBoAMX">https://www.youtube.com/playlist?list=PL_QIQEralweE0Twx6FckIEbBoAMX</a>	BS GREWAL UNIT 3 SERIES(AVAILABLE ON TELEGRAM)
FUNCTION OF SEVERAL VARIABLES	<a href="https://www.youtube.com/watch?v=ZdTf8HmZvA&amp;list=PLbPKXd6l4z1n1Mj">https://www.youtube.com/watch?v=ZdTf8HmZvA&amp;list=PLbPKXd6l4z1n1Mj</a>	Not that important just solve related to previous year questions and previous year papers are available on Telegram.(Questions related to "Directional derivative" are important.
DIFFERENTIAL EQUATION	<a href="https://www.youtube.com/watch?v=bJZKTrCBNw&amp;list=PLU6SqdYcYsfuZvT2">https://www.youtube.com/watch?v=bJZKTrCBNw&amp;list=PLU6SqdYcYsfuZvT2</a>	FROM ENGG MATHEMATICS BOOK OF BS GREWAL
PROBABILITY	<a href="https://www.youtube.com/watch?v=w5L0I_QY9IU&amp;list=PLbu_fGTOMPsuW3">https://www.youtube.com/watch?v=w5L0I_QY9IU&amp;list=PLbu_fGTOMPsuW3</a>	CENGAGE ALGEBRA BOOK SOLVED EXAMPLES
REMAINDER THEOREM, FACTOR THEOREM	<a href="https://www.youtube.com/watch?v=cgXTohh7UkI">https://www.youtube.com/watch?v=cgXTohh7UkI</a>	related questions from tomato book can be solved
DOUBLE INTEGRAL	<a href="https://www.youtube.com/watch?v=Z5S3tLEUgiQ&amp;list=PLm-b21htS27Uoxw">https://www.youtube.com/watch?v=Z5S3tLEUgiQ&amp;list=PLm-b21htS27Uoxw</a>	QUESTIONS ON DOUBLE INTEGRAL FROM BS GREWAL
GROUP THEORY	<a href="https://www.youtube.com/playlist?list=PL_QIQEralweHMEHT3G_DdLaj1_hr">https://www.youtube.com/playlist?list=PL_QIQEralweHMEHT3G_DdLaj1_hr</a>	IN TELEGRAM CHANNEL A PDF NAMED 1.PDF
TRIGONOMETRY(not very imp)	<a href="https://www.youtube.com/watch?v=pmlWu0Evc6A">https://www.youtube.com/watch?v=pmlWu0Evc6A</a>	CAN BE SKIPPED
PROPERTIES OF TRIANGLE.	<a href="https://www.youtube.com/watch?v=OOpGqsYnPj0&amp;list=PLbu_fGTOMPsuW3">https://www.youtube.com/watch?v=OOpGqsYnPj0&amp;list=PLbu_fGTOMPsuW3</a>	PREVIOUS YEAR QUESTIONS AND TOMATO

Thermodynamics [https://www.youtube.com/playlist?list=PL9RcWogXmzaK6AHCCyL\\_J6gqc02RN-w-D](https://www.youtube.com/playlist?list=PL9RcWogXmzaK6AHCCyL_J6gqc02RN-w-D)

PQB Blog(paper 2 ) <https://medium.com/isi-entrance-preparation/how-to-study-for-engineering-for-2f203d755e18>

IN THERMODYNAMICS WE HAVE SOME TOPICS OF THERMO CHEMISTRY AS WELL, PDF TO DO THAT IS AVAILABLE IN TELEGRAM CHANNEL.

THE IMPORTANT BOOK FOR PREPARATION IS P K NAG.

THE CHAPTER YOU SHOULD READ AND SOLVE SOLVED EXAMPLE AND DO DERIVATION ARE:

**CHAPTER:3,4,6,7,8 AND BASICS OF IC ENGINE LIKE OTTO AND DIESEL CYCLE.**

MECHANICS BOOK OF MADE EASY CAN ALSO BE USED FOR PRACTICE WITH THOERY AND SOLVED EXAMPLE FROM R S KHURMI:check more here [https://medium.com/@satish\\_nagani/how-to-study-for-engineering-for-XF0D4735e18](https://medium.com/@satish_nagani/how-to-study-for-engineering-for-XF0D4735e18)

IMPORTANT TYPES OF QUESTIONS:TOPIC,QUESTION PROFILE,LEARNING RESOURCE,REMARK  
THERMODYNAMICS,PISTON CYLINDER PROBLEMS,P K NAG,SOLVE ALL P K NAG SOLVED EXAMPLES  
THERMODYNAMICS,"HEAT ENGINE,COP PROBLEMS",P K NAG,SOLVE ALL P K NAG SOLVED EXAMPLES  
THERMODYNAMICS,CHANGE IN ENTHALPY WITH VARIABLE  $C_p$  AND  $C_v$ ,P K NAG,SOLVE ALL P K NAG SOLVED EXAMPLES  
THERMODYNAMICS,ENTROPY PROBLEMS,P K NAG,SOLVE ALL P K NAG SOLVED EXAMPLES  
THERMODYNAMICS,IMPORTANT FORMUL DERIVATION.,P K NAG,SOLVE ALL P K NAG SOLVED EXAMPLES  
MECHANICS,COUPLE/MOMENT CALCULATION,R S KHURMI,SOLVE ALL R S KHURMI SOLVED EXAMPLES FROM CH1 TO CH 18  
MECHANICS,MOMENT OF INTERIA CALCULATION,PREVIOUS YEARQUESTION + MANAS PATNAIK YT CHANNEL,SOLVE ALL R S KHURMI SOLVED EXAMPLES FROM CH1 TO CH 18  
MECHANICS,SHAFT AND BELT PROBLEMS,PREVIOUS YEARQUESTION ,SOLVE ALL R S KHURMI SOLVED EXAMPLES FROM CH1 TO CH 18  
MECHANICS,PULLEY PROBLEM(NLM),FROM JEE PHYSICS BOOK,SOLVE ALL R S KHURMI SOLVED EXAMPLES FROM CH1 TO CH 18  
MECHANICS,TOPPLING PROBLEM,FROM JEE PHYSICS BOOK,SOLVE ALL R S KHURMI SOLVED EXAMPLES FROM CH1 TO CH 18  
MECHANICS,HAMMER AND NAIL PROBLEMS,R S KHURMI,SOLVE ALL R S KHURMI SOLVED EXAMPLES FROM CH1 TO CH 18

FOR SOM PREVIOUS YEAR QUESTION SHOULD BE YOUR MAIN FOCUS AND SOLVE SIMILAR TYPE QUESTION FROM ANY SOM BOOKS.

For electrical

According to a batchmate: Fundamentals Of Electric Circuits By Charles K Alexander & Matthew N O Sadiku and Electrical machines by ashfaq hussain for numericals and PYQs are a must And Made Easy Notes

# SOLVE AND ANALYSE PREVIOUS YEAR PAPERS AND GO FORTH