

**DEPARTMENT OF WATER RESOURCES AND OCEAN ENGINEERING**  
**NITK, SURATHKAL**

Shortlisted Candidates for Written Test / Interview of M.Tech (Self- Financed) Program  
2022-23

Date and time of written test: 12<sup>th</sup> July 2022, 12.00 P.M- 1.00 PM

Date and Time of Interview: 12<sup>th</sup> July 2022, 2.00 PM onwards

SL NO	APPLICATION NO	NAME
<b>MARINE STRUCTURES</b>		
1	MT2022MS0001	DEVANSH PANDEY
2	MT2022MS0003	DIVYANSH PANDEY
3	MT2022MS0004	MANOJKUMAR R SAJJANSHETTAR
<b>WATER RESOURCES ENGINEERING AND MANAGEMENT</b>		
1	MT2022WR0001	SHAIMA FATHIMA
2	MT2022WR0002	HIMANSHU PANT
3	MT2022WR0004	NEHA MAJEE
4	MT2022WR0005	DEVANSH PANDEY
5	MT2022WR0007	GAYATHRI NIVEDHA R
6	MT2022WR0008	DIVYANSH PANDEY
7	MT2022WR0009	MANOJKUMAR R SAJJANSHETTAR
8	MT2022WR0011	HARSHITHA N RAJ
9	MT2022WR0012	MEGHANA L N
10	MT2022WR0013	AKANSHA THAKUR
11	MT2022WR0014	DINESH SUNDARA MARTHANDAN. U
12	MT2022WR0015	SOURAB DESAI
13	MT2022WR0016	PASTAGIYA KRUTIK PANKAJBHAI
14	MT2022WR0017	MEHAR KARTIKEY PREMNATH
<b>GEOINFORMATICS</b>		
1	MT2022GF0001	DEVANSH PANDEY
2	MT2022GF0002	DIVYANSH PANDEY
3	MT2022GF0003	MANOJKUMAR R SAJJANSHETTAR

DEPARTMENT OF WATER RESOURCES AND OCEAN ENGINEERING  
NITK, SURATHKAL

4	MT2022GF0004	SOURAB DESAI
5	MT2022GF0005	VISHWAS R
6	MT2022GF0006	PALARAPU SRIMAMN

  
Chairman (DPGC)  
Dept. of Water Resources & Ocean Engineering

# **Dept. Water Resources & Ocean Engineering**

**(Formerly Dept. of Applied Mechanics & Hydraulics)**

**NITK, Surathkal, Mangalore, Pin: 575 025**

## **General Instructions for the candidates who are appearing for the M.Tech. (Self-Financing) Written Aptitude Test & Interview (offline mode):**

1. Syllabus for the written aptitude test is provided in annexure.
2. Mode of the written aptitude test is offline. Details of examination will be announced in our Institute's Website (<https://www.nitk.ac.in/>). For any further updates, the candidates are requested to visit our Institute's Website regularly.
3. There will be 30 multiple choice questions (MCQ) for the M.Tech. (Self-Financing) Written Aptitude Test. For every question, four options will be given. The candidates are expected to select correct option.
4. Each correct answer carries one mark. Total marks for the test is 30
5. There is negative marking for wrong answer. For each wrong answer, 0.25 marks will be deducted.
6. Time duration is 60 minutes.
7. The candidates are allowed to use scientific calculators for solving numerical problems.
8. After the written test, shortlisted candidates will be allowed to attend the M.Tech. (Self-Financing) interview.
9. **Written Test Date and Time:** July 12<sup>th</sup> 2022, 12 PM to 1 PM. **No extra time will be given.**
10. **Interview Date and Time:** July 12<sup>th</sup> 2022, 02.00 PM Onwards.

sd/-

**Chairperson (DPGC)**

## Annexure

### Syllabus for the M.Tech. (Self-Financing) Written Aptitude Test

**Engineering Mechanics:** System of Forces, Free-Body Diagrams, Equilibrium Equations; Internal Forces in Structures; Plane Truss, Second Area Moment.

**Solid Mechanics:** Bending Moment and Shear Force in Statically Determinate Beams; Simple Stress and Strain Relationships; Simple Bending Theory, Flexural and Shear Stresses, Uniform Torsion, Buckling of Column.

**Fluid Mechanics:** Properties of Fluids, Fluid Statics; Continuity, Momentum, Energy and Corresponding Equations; Potential Flow, Applications of Momentum and Energy Equations; Laminar and Turbulent Flow; Flow in Pipes, Pipe Networks; Concept of Boundary Layer and its Growth.

**Numerical Methods:** Accuracy and Precision; Error Analysis. Numerical Solutions of Linear and Non-Linear Algebraic Equations; Least Square Approximation, Newton's and Lagrange Polynomials, Numerical Differentiation, Integration by Trapezoidal and Simpson's rule, Single and Multi-Step Methods for First Order Differential Equations.

**Calculus:** Functions of Single Variable; Limit, Continuity and Differentiability; Mean Value Theorems, Local Maxima and Minima.

---

sd/-

Chairperson (DPGC)