

Roll No.

22607

M. Tech. 1st Sem. (ME) CBCS Scheme
Examination – February, 2022

COMPUTATIONAL FLUID DYNAMICS

Paper : MTME21D3

Time : Three hours]

[Maximum Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt any *five* questions. All questions carry equal marks.

1. Discuss the history of Computational Fluid Dynamics.
Also discuss any one approach of solving the problem analytically. 20
2. What is Beam advance in computational technique ?
Explain. 20
3. What is the standard procedure for formulating a problem physical ? Discuss. 20

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4. Compare the Finite volume method and spectral method. 20
 5. Discuss the Steady-state problem of one dimensional heat conduction transfer through a pin. 20
 6. What is Explicit and Implicit methods ? Explain. 20
 7. Discuss the various types of fluid flow and their governing equation. 20
 8. Explain the MAC method of SIMPLE algorithm. 20
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