REGISTRATION NUMBER | | | | | | | | | | |

SRINIX COLLEGE OF ENGINEERING

1st INTERNAL EXAMINATION-2020-21

Subject-**SDMF** Semester-**7TH** Branch-**CIVIL**

Full Mark-**60** Time-2**.00Hrs**

ANSWER ALL QUESTION (PART-A) **[2X6=12]**

1. Differentiate between damping and frequency ratio.
2. What are the materials used in vibration?
3. What do you mean by Coefficient of elastic non uniform shear?
4. What is viscous damping?
5. Define logarithmic decrement and magnification factor.
6. Why dynamic soil properties are evaluated? List the various laboratory and field tests for dynamic soil properties.

ANSWER ALL QUESTION **(PART-B)** **[6X8=48]**

1. Discuss the principles of design of foundation for impact type machine with clear illustration.
2. Discuss the degree of freedom of rigid block foundation and explain the salient points in linear elastic weightless method and elastic half space method of analysis of rigid block foundation.
3. Explain resonant column test.
4. Derive the expression of natural frequency and amplitude of a block foundation subjected to vertical vibration.
5. Explain how the natural frequency of foundation soil system is estimated using the Berken's analysis and IS code method.
6. Discuss how the young's modulus and amplitude is estimated using Barken's analysis.
7. What are the seismic wave propagation tests? Explain how the shear modulus is estimated by seismic cross hole technique.
8. Discuss the characteristics of seismic wave such as P and S waves and also the R and L waves with neat sketches.