[Total No. of Printed Pages: 2

Roll No

ME-8001 (CBGS)

B.E. VIII Semester

Examination, May 2019

Choice Based Grading System (CBGS) Advance Machine Design

Time: Three Hours

Maximum Marks : 70

Note: i) Attempt any five questions

- ii) All questions carry equal marks.
- a) Explain the stages involved in the design of a machine element.
 - b) Discuss the design for reliability.
- a) What is the difference between elastic design and plastic design?
 - b) What is probability? Explain the normal curve.
- a) List the factors which affect the friction between two contacting surfaces.
 - Explain the theory of adhesive friction.
- Discuss the tribological consideration while selecting polymer based material as a machine part.
- 5. Write short notes on:
 - i) Corrosive wear
 - ii) Lubricant additives

- 6. a) Why tolerances are required on mating parts? How it is specified?
 - b) What is unsymmetrical bending? Discuss two examples.
- a) What is strain gauge? Explain the working of any strain gauge circuit.
 - b) What is the importance of circuit sensitivity? Explain.
- 8. Write-short notes on any two
 - a) σ -N curve for non ferrous materials
 - b) Theories of failure
 - c) Life cycle of components
 - d) Photo elasticity

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