

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.

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

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6. a) Why tolerances are required on mating parts? How it is specified?
b) What is unsymmetrical bending? Discuss two examples.
7. 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
