English catch up exam for Mechanical engineering.

Full Name: ................................................................. Group: ...........................................

Fill in the gaps with the following: laboratory, tested, forces, analytical, behavior, structural, stiffness, mechanical, form.(04 pts)

The subject of mechanics of materials involves ............... methods for determining the .......................(deformation characteristics), and stability of the various members in a .............. system. The .................. of a member depends not only on the fundamental laws that govern the equilibrium of ..............., but also on the mechanical characteristics of the material. These mechanical characteristics come from the ....................... where materials are ................... under accurately known forces and their behaviour is carefully observed and measured.

Name five(05) field applications of ME.(06pts)

01) ........................................................................

02) ........................................................................

03) ........................................................................

04) ........................................................................

05) ........................................................................

With what does ME deal?(02pts)

........................................................................

........................................................................

........................................................................

........................................................................

........................................................................
Give the right name of these tools. (05pts)

01) A piece of metal with a tapering threaded body and grooved head by which it is turned into something in order to fasten thing together ..........................

02) A tool with a flat beveled blade it is used for cutting and shaping wood or stones, consisting of a straight flat beveled blade with a shape square cut edge inserted in a handle..........................

03) A hand-held power tool usually powered by compressed air used for splitting or drilling rocks and breaking up paved areas..........................

04) The pivot or the support point about which a lever turns......................

05) A tapering block or a solid that is thick at one end and thin at the other, it is used to secure or separate tow objects..........................

Name four (04) assumptions that we make about stress and body.

01) .................................................................................................................................

02) .................................................................................................................................

03) .................................................................................................................................

04) .................................................................................................................................
The subject of mechanics of materials involves analytical methods for determining the stiffness (deformation characteristics), and stability of the various members in a structural system. The behaviour of a member depends not only on the fundamental laws that govern the equilibrium of forces, but also on the mechanical characteristics of the material. These mechanical characteristics come from the laboratory, where materials are tested under accurately known forces and their behaviour is carefully observed and measured.

Name five (05) field applications of ME. (05pts)

01 Applied Mechanics
02) Fluids Engineering
03) Heat Transfer
04) Energy Conversion
05) Nuclear Engineering

Applied Mechanics
Internal Combustion Engines
Fuels & Combustion Technologies
Power Engineering
Energy Resources

With what does ME deal? (02pts)

It deals with the relation between externally applied loads and the internal effect on the bodies.
Give the right name of these tools (05pts)

01) A piece of metal with a tapering threaded body and grooved head by which it is turned into something in order to fasten thing together **SCREW**

02) A tool with a flat beveled blade it is used for cutting and shaping wood or stones, consisting of a straight flat beveled blade with a shape square cut edge inserted in a handle **CHISEL**

03) A hand-held power tool usually powered by compressed air used for splitting or drilling rocks and breaking up paved areas **JACKHAMMER**

04) The pivot or the support point about which a lever turns **FULCRUM**

05) A tapering block or a solid that is thick at one end and thin at the other, it is used to secure or separate tow objects **WEDGE**

Name four (04) assumptions that we make about stress and body.

1. The body is homogeneous, i.e., it is made of the same material in all its parts.
2. The body is isotropic, i.e., the properties of the material do not depend on direction.
3. The cross section $A$ is constant.
4. The body is straight.