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(Level 4)

2nd Sem / (DVOC) (Industrial Tool Manufacturing)

Subject : General Mechanical Engineering - I

Time : 2 Hrs. M.M. : 50

SECTION-A

Note: Very short answer type questions. All questions are compulsory. (10x1=10)

Q.1 State Hook's law.

Q.2 What is Temporary fastening?

Q.3 Define shear force.

Q.4 What is UDL?

Q.5 Which is a positive drive: belt drive or chain drive?

Q.6 What are bevel gears?

Q.7 What is viscosity?

Q.8 Define the term pressure.

Q.9 State velocity head.

Q.10 What is turbine.

SECTION-B

Note: Short answer type questions. Attempt any six questions out of Eight questions. (6x5=30)

Q.11 Define volumetric strain.

Q.12 Explain torsional rigidity of the shaft.

Q.13 Write short note on simply supported beam and overhanging beam.

Q.14 How shear force and bending moment related to each other?

Q.15 Write short note on use of belts in power transmission in specific conditions.

Q.16 How power is transmitted by hollow shaft?

Q.17 What is loss of head due to friction?

Q.18 How pumps are classified?

SECTION-C

Note: Long answer type questions. Attempt any one question out of two questions. (1x10=10)

Q.19 Explain with neat sketch the working principle of Pelton wheel turbine.

Q.20 Draw shear force and bending moment diagram for a cantilever of length 6m and point load of 5KN is applied at the free end.