

No. of Printed Pages : 2

Roll No.

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DVOC (Level)

4th Sem

Subject : General Mechanical Engineering-I

Time : 2 Hrs.

M.M. : 50

SECTION-A

Note: Very short questions. Attempt all ten questions.
(10x1=10)

- Q.1 What is elastic limit?
- Q.2 What is bending moment?
- Q.3 What is a cantilever?
- Q.4 Define torsion.
- Q.5 Name any instrument used to measure atmospheric pressure.
- Q.6 What is Turbulent flow?
- Q.7 Define strain.
- Q.8 Tell any two properties of fluids.
- Q.9 What is shear force?
- Q.10 Name any two types of gears.

SECTION-B

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

- Q.11 Compare the strength of Riveted and Bolted joints.
- Q.12 Derive the expression for power transmission by a hollow shaft.

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Q.13 Explain types of belts in brief.

Q.14 Draw bending moment diagram of uniformly distributed load on a simply supported beam.

Q.15 Explain the application of Bernoulli's theorem in venturimeter.

Q.16 Explain classification of pulleys in brief.

Q.17 Draw shearing force diagram of overhanging beam.

Q.18 A rod 20mm in diameter & 10m long is subjected to an axial pull of 100KN. If $E=200\times 10^9$ N/mm² of the material of the rod, then determine stress, strain & elongation.

SECTION-C

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

- Q.19 Explain the construction & working of Centrifugal pump with the help of neat sketch in detail.
- Q.20 Describe the construction & working of Reaction type turbine with help of neat sketch in detail.

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