

Q.4 Which of the following is correct:- (CO3)

- a) $F = mR$ b) $F = m^2R$
c) $F = m/R$ d) $F = mR^3$

Q.5 The point through which the whole area of a plane figure may be assumed to act is known as (CO4)

- a) Centre of the pressure
b) Centroid
c) Mid point
d) None of the above

Q.6 Input of a Machine is (CO7)

- a) Work done by the effort on the machine
b) Load raised by the machine
c) Effort applied on the machine
d) None of the above

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

Q.7 Machines help in lifting heavy loads with _____ effort (CO7)

Q.8 S.I unit of Torque is _____ (CO6)

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Q.9 The stresses induced in a body due to change in temperature is known as _____ (CO5)

Q.10 The total Strain Energy stored in a body is known as _____ (CO5)

Q.11 Centre of Gravity of a Triangle lies at _____ (CO4)

Q.12 A beam made up of two or more materials; joined together to act like a single piece is known as _____ (CO6)

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 Draw the Stress Strain curve for a Mild Steel Specimen subjected to a tensile load and explain main points. (CO5)

Q.14 State Hook's law. (CO5)

Q.15 State Parallel Axis theorem (CO4)

Q.16 State Parallelogram law of forces (CO1)

Q.17 Find the magnitude and direction of the resultant force when two pulls of 50N and 30 N are acting at an angle of 60°. (CO1)

Q.18 Differentiate between like and unlike parallel forces. (CO2)

Q.19 State the laws of Dynamic Friction (CO3)

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