Published on *Mechanical Engg Simple Notes ,Solved problems and Videos* (https://mechdiploma.com)

State the functions of clutches

[1] To engage and disengage output shaft with the engine shaft as and when required.
[2] To engage shafts very smoothly without much slipping of friction surfaces.
[3] To transmit power from engine shaft to output shaft without loss.
[4] To engage the shafts smoothly without noise and jerk

Log in to post comments

List any four applications of ‘cam’ and ‘follower’.

Applications of Cam and Follower:
[1] Operating the inlet and exhaust valves of internal combustion engines
[2] Used in Automatic attachment of machineries, paper cutting machines
[3] Used in Spinning and weaving textile machineries.
[4] Used in Feed mechanism of automatic lathes etc.
[5] Used in Diesel Fuel Pumps.
[6] Used in printing control mechanism
[7] Used in wall clock
[8] Used in feed mechanism of automatic lathe.

Log in to post comments

State the relation between relative velocity and motion of link in mechanism.

Relation between Relative Velocity and motion of link in mechanism:
The relative velocity is the velocity of any point with respect to any other some point on the
same link.
Let,
V be the relative velocity of one end w.r.t. other end of link in m/sec
ω be the angular motion in rad/sec &
r as the length of same link in meter
Then, the relation is expressed as;
V = r x ω m/sec

Log in to post comments

List different types of ‘kinematic pair’.

Types of Kinematic pairs:
[1] According to the type of relative motion between the elements:
(a) Sliding pair.
(b) Turning pair.
(c) Rolling pair.
(d) Screw pair.
(e) Spherical pair.

[2] According to the type of contact between the elements:

(a) Lower pair.
(b) Higher pair.
[3] According to the type of closure:
(a) Self closed pair.
(b) Force - closed pair.
[4] According to Constrained Motion:
(a) Incompletely Constrained
(b) Completely Constrained
(c) Successfully Constrained

Log in to post comments

Define term ‘kinetics’

Definition of Kinetics:
It is that branch of Theory of Machines which deals with the inertia forces which arise from
the combined effect of the mass and motion of the machine parts.

Log in to post comments

---

fsd

stress is load per unit area.

Log in to post comments

---

sameer

Submitted by sameerengr on Mon, 06/03/2019 - 16:05

Give the classification of air conditioning systems.

Air conditioning systems are classified as

1) Classification as to major function- i) Comfort air-conditioning - air conditioning in hotels, homes, offices etc. ii) Commercial air-conditioning- air conditioning for malls, super market etc iii) Industrial air-conditioning – air conditioning for processing, laboratories etc

---

Define : i) DBT

i) DBT – Dry bulb temperature - t_{DB} - It is the temperature of air recorded by an ordinary thermometer and it is not affected by the moisture present in air.

ii) **WBT -**It is the temperature recorded by thermometer when its bulb is covered with wet cloth known as wick and is exposed to air.

iii) DPT – Dew point temperature t_{DP} *D.P.T. of mixture is defined as the temperature at which water vapours starts to condense.*

iv) Relative humidity:- It is defined as the ratio of partial pressure of water vapour in a given volume of mixture to the partial pressure of water vapour when same volume of mixture is saturated at the same temperature.

$$\therefore RH = \frac{P_v}{P_v sat} \times 100$$

Explain with neat sketch working principle of turbo jet

engine.

Working principle of Turbojet: shows the schematic of turbojet engine. It has a diffuser section at inlet for realizing some compression of air passing through this section. Due to this air reaching compressor section has pressure more than ambient pressure. This action of partly compressing air by passing it through diffuser section is called “ramming action” or “ram effect”. Subsequently compressor section compresses air which is fed to combustion chamber and fuel is added to it for causing combustion.

Pages

« first
‹ previous
…
4
5
6
7
8
9
10
11
12
…
next ›
last »
