Home >

Apply

Examination: 2017 SUMMER

Que.No	Question/Problem	marks
Q 1 a)	Define inversion with example.	2
Q 1 b)	List the inversions for double slider crank mechanism.	2
Q 1 c)	Define sliding pair with example.	2
Q 2 a)	Draw a neat sketch and explain working of beam engine.	4
Q 3 a)	Differentiate between mechanism and machine.	4
Q 3 b)	Explain the working of Whitworth quick return mechanism.	4
Q 4 a)	Explain the working of freewheel mechanism of bicycle with sketch.	4
Q 6 a)	Draw a neat sketch of Oldham's coupling and explain the working of it.	4

Examination: 2017 WINTER

Que.No	Question/Problem	marks
Q 1a)(a)	Define kinematic link and kinematic chain.	2
Q 1a)(a)	Define kinematic link and kinematic chain.	2
Q 1a)(i)	(a) Define : (i) Spherical pair (ii) Higher pair	2
Q 1 b)	(b) Define : (i) Radial follower (ii) Off-set follower	2
Q 1 b)	State any four types of friction clutch, along with its application each.	4
Q 1 b)	Define slip and creep with reference to belt drive. Also state their effect on velocity ratio.	4
Q 1b)(a)	Define completely constrained motion and successfully constrained motion with neat sketch. State one example of each.	4

Que.No	Question/Problem	marks
Q 1 c)	What do you mean by crowning of pulleys in flat belt drive ? State its use.	2
Q 1 d)	Define initial tension in belt drive & state its effect.	2
Q 1 e)	Define fluctuation of speed and fluctuation of energy in case of flywheel.	2
Q 1 f)	Define the sensitivity in relation to governer. State its significance.	2
Q 1 h)	State the adverse effect of imbalance of rotating elements of machine.	2
Q 2 a)	Differentiate between machine and structure.	4
Q 2 a)	What is a machine ? Differentiate between a machine and a structure.	4
Q 2 b)	Explain with the neat sketch working of crank and slotted lever quick return mechanism.	4
Q 2 b)	Describe with neat sketch the working of scotch yoke mechanism.	4
Q 2 c)	Explain the inter-relation between linear and angular velocity, linear and angular acceleration with suitable example.	4
Q 2 d)	Explain the Klein's construction to determine velocity and acceleration of a link in an I.C. engine mechanism.	4
Q 2 e)	Draw the labelled displacement, velocity and acceleration diagrams for a follower when it moves with simple harmonic motion.	4
Q 2 f)	A pulley rotating at 50 m/s transmits 40 kW. The safe pull in belt is 400 N/cm width of belt. The angle of lap is 170º. If coefficient of friction is 0.24, find required width of belt.	4
Q 4 b)	Justify that slider crank mechanism is a modification of the basic four bar mechanism with neat sketch.	4

Examination: 2016 SUMMER

Que.No	Question/Problem	marks
Q 1a)(i)	Enlist the types of constrained motion. Draw a label sketch of any one	2
Q 1b)(i)	State inversions of double slider crank chain. Explain Oldham's coupling with neat sketch	4

Que.No	Question/Problem	marks
Q 2 a)	Draw a labeled sketch of quick return mechanism of shaper and explain its working….	4
Q 2 b)	What are the types of kinematic pair ? Give its examples. …………MSBTE TOM SUMMER 2016 Q 2 b	4
Q 4 b)	Justify with neat sketch elliptical trammel as an inversion of double slider crank chain.	4

Examination: 2016 WINTER

Que.No	Question/Problem	marks
Q 1a)(i)	Define Kinematic link with one example.	2
Q 1a)(ii)	Name different mechanisms generated from a single slider crank chain.	2
Q 1b)(i)	State any four inversions of single slider crane chain. Describe any one with neat sketch.	4
Q 2 a)	Explain a scotch yoke mechanism with a neat sketch.	4
Q 2 b)	What is machine ? Differentiate between a machine and a structure.	4
Q 4 b)	Describe with neat sketch the working of Oldham's coupling.	4

Examination: 2015 SUMMER

Que.No	Question/Problem	marks
Q 1a)(a)	Define kinematic link and kinematic chain.	2
Q 1b)(a)	Define completely constrained motion and successfully constrained motion with neat sketch. State one example of each.	4
Q 2 a)	Differentiate machine and structure on any four points.	4
Q 3 f)	Crank OA of a mechanism is hinged at 'O' and rotates at an angular velocity of 20 rad/sec…….	4
Q 4 b)	Explain with the diagram working of crank and slotted lever quick return mechanism.	4

Examination: 2015 WINTER

Que.No	Question/Problem	marks
Q 1a)(i)	Define - 1. Mechanism 2.Inversion	2

Que.No	Question/Problem	marks
Q 1b)(i)	Draw neat labeled sketch of crank and slotted lever mechanism. Label all parts.	2
Q 2 a)	State and explain various types of constrained motions with suitable examples.	4
Q 2 b)	Draw the neat labeled sketch of Oldham's coupling. State its applications.	4
Q 4 b)	State the meaning of sliding pair, turning pair, rolling pair and spherical pair with one example each.	4