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2nd Year / Agri, Automobile, Mechanical, Mechanical(Tool & die Design)

Subject : Mechanical Engineering Drawing-I

Time : 3 Hrs. M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 Which one is a V-thread?

a) B. S. W thread b) Square thread

c) Acme thread d) Kunckle thread

Q.2 In square headed bolt, radius of front chamfer is

a) R=3D b) R=D

c) R=2D d) R=4D

Q.3 Material of key is

a) Aluminum b) Cast iron

c) mild steel d) high speed steel

Q.4 In flange coupling, the weakest element should be

a) flange b) Key

c) shaft d) bolt bush

Q.5 The outermost portion of thread is called

a) crest b) root

c) flank d) slope

Q.6 Lock nut is also known as

a) sawn nut b) check nut

c) slotted nut d) ring nut

SECTION-B

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

Q.7 Name any two wooden joints.

Q.8 Define pitch .

Q.9 Define shaft coupling.

Q.10 What are the uses of locking devices ?

Q.11 Define double start thread .

Q.12 Define the fullering process.

SECTION-C

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

Q.13 Show the acme thread by rough sketch.

Q.14 Sketch the Castle nut.

Q.15 Draw freehand sketch of Lewis bolt.

Q.16 Write about Sunk key and Saddle key .

Q.17 Draw one view of hexagonal nut when internal diameter of nut is 20 mm.

Q.18 Draw one view of flexible coupling.

Q.19 Explain the nomenclature of threads with suitable sketch.

Q.20 Draw any two machine screws.

Q.21 What are the differences between a key and a cotter ?

Q.22 Draw right - hand and left- hand threads and explain them.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

Q.23 Draw sectional Elevation and Top view of double riveted, single plate butt joint (chain type).

Take plate thickness t=18mm.

Q.24 Draw the free hand sketch of a forged end rigid flange coupling with proportional dimensions.

Q.25 Detail drawing of dovetail bridle joint is shown in figure1. Draw the following assemble views:

a) Front view

b) Side view

c) Top view

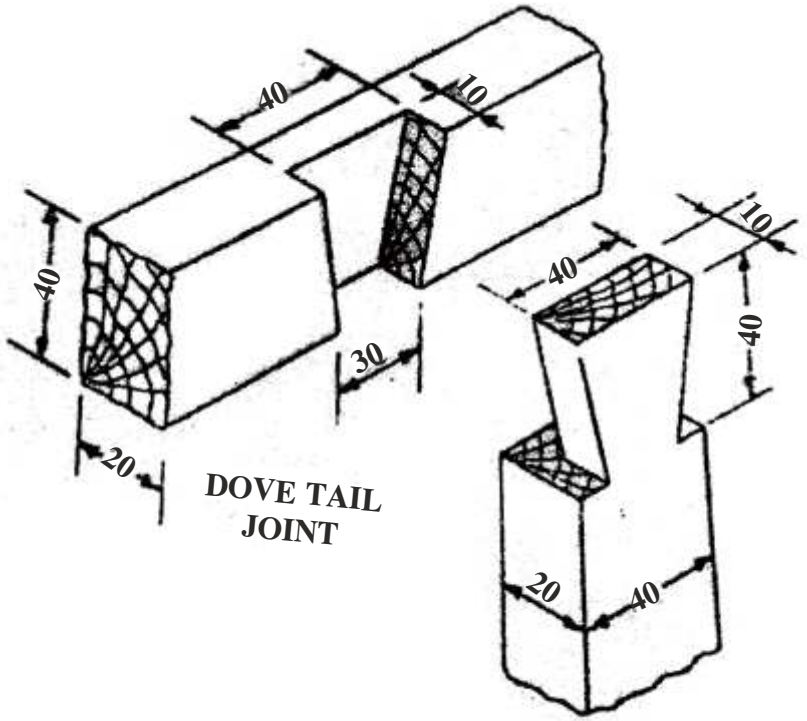

Fig.1