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2nd Sem / 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 Slotted nuts are (CO3)

a) Hexagonal b) Square

c) Octagonal d) Cylindrical

Q.2 Weakest element in flange coupling (CO7)

a) Flange b) key

c) Bolt d) Shaft

Q.3 For buttress thread the angle between the two flanks is_____ (CO2)

a) 55^{o} b) 47.5^{o}

c) 29^{o} d) 45^{o}

Q.4 Define the Wooden Joints. (CO1)

Q.5 Angle between flanks of ACME threads is_____ (CO2)

Q.6 What is use of locking nuts? (CO4)

SECTION-B

Note: Short answer type questions. Attempt any three questions out of four questions. (3x6=18)

Q.7 Draw proportionately the following. (CO4)

i) Castle nut ii) Split nut

Q.8 Draw free hand sketch of Rag foundation bolt. (CO3)

Q.9 Draw front view and top view of hexagonal nut, when internal diameter of nut is 20 mm. (CO3)

Q.10 Draw in detail BSW thread. (CO2)

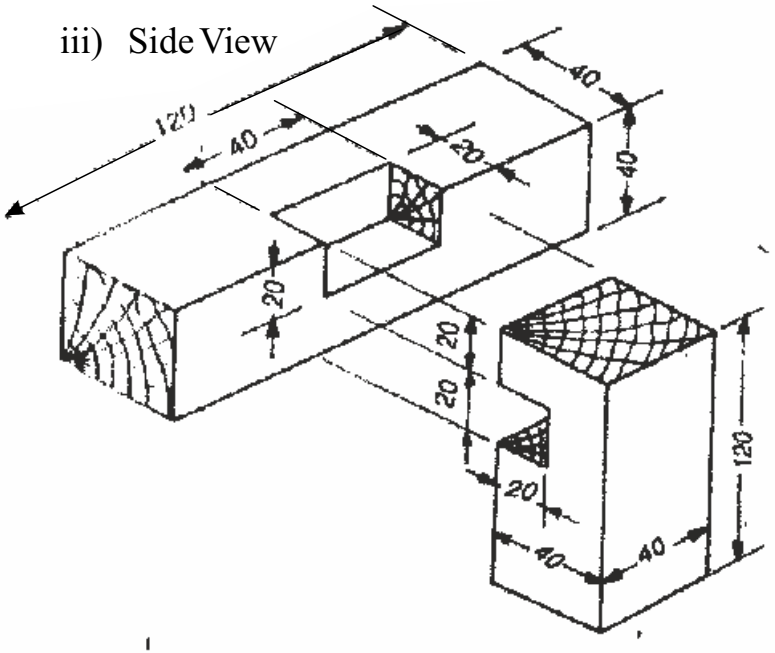
SECTION-C

Note: Long answer type questions. Attempt any three questions out of four questions. (3x12=36)

Q.11 The detailed of two members of "Cogged joints" is shown below. Assemble the parts together and draw the following views in first angle projection. (CO1)

i) Front View ii) Top View

iii) Side View



Q.12 Draw Sectional elevation & top view of double riveted double cover plate butt joint Zig-Zag type. Take plate thickness t = 18 mm. Draw at least 2-3 rivet heads in each row in plan. (CO6)

Q.13 Draw free hand sketch of muff coupling. (CO7)

Q.14 Details of a knuckle joint are given in fig.2. Draw the following views of it after assembling all its parts together to a suitable scale. (CO5)

a) Front elevation b) Top plan