

HANSRAJ MODEL SCHOOL
PUNJABI BAGH, NEW DELHI
ACADEMIC PLAN
SESSION: 2024-2025
SUBJECT: ENGINEERING GRAPHICS
CLASS: XII

MONT H	TOPIC/ SUBTOPICS	LEARNING INTENTIONS	ACTIVITIES	ASSIGNMENT
April	Isometric projection <ul style="list-style-type: none"> ● Iso scale ● Single solid ● Double solid 	Understands isometric projection Able to draw iso-scale & knows its purpose Able to draw single solid in vertical & horizontal position Able to draw one solid over another in different combination	Activity (includes art integration) : Make model of prisms and pyramids by paper folding and analyze solids in horizontal and vertical positions	Draw iso-scale Assignment-1 on isometric projection
May	Machine parts (To full size scale) <ul style="list-style-type: none"> ● Threads ● Nuts ● Bolts 	Understands the use of different types of fasteners Able to draw views of different fasteners with standard dimensions	Activity : Study the models of nuts and bolts and analyze different views. Project: Soft & Hard copy of isometric & orthographic views of	Assignments on Machine Parts – (To full size scale) Assignment – 2 on Threads Assignment -3 on Nuts & Bolts Assignment -4 on combination of Nut & Bolt

	Project-Collabcad	Can draw iso & orthographic views using cad software	15 simple solids (Follow instructions from CAD PROJECT	
July	Machine parts (free hand sketches) <ul style="list-style-type: none"> ● Studs ● Rivets ● Screws Machine blocks (15 blocks)	Understands the purpose of free-hand sketching Able to draw free hand sketches of fasteners Able to draw isometric view & missing view from two given views.	Activity (teaching moral values also) Draw and cut the models of prescribed machine blocks(Take care of your surroundings and keep it clean during the activity)	Assignment -5 on Machine parts - free hand sketches Assignment – 6 on Machine blocks
August	Assembly/ disassembly Bearings <ul style="list-style-type: none"> ● Open bearing ● Bushed bearing Rod joints <ul style="list-style-type: none"> ● Sleeve & cotter joint ● Gib & cotter joint 	Knows the details of all parts of bearings & rod joints Able to assemble different types of bearings & rod joints Understands different types of section	Activity : Study the model of bearings and rod- joints from different angles.	Assignment -7 on Assembly/Disassembly of Machine Parts Assembly of Question No.-1-4

September	<ul style="list-style-type: none"> • Bearings & Rod joints 	Able to disassemble different types of bearings & rod joints		Assignment – 7 Disassembly of Question No. 1-4
October	Tie rod & pipe joint <ul style="list-style-type: none"> • Turnbuckle • Flange pipe joint 	Knows the details of all parts of tie rod & pipe joint, couplings & pulley Able to assemble tie rod & pipe joint, couplings & pulley Understands different types of section	Activity : Study models of Tie-rod ,pipe joint for different type of views	Assignment No-7 Assembly of Question No. 5&6
November	Tie rod & pipe joint	Able to disassemble Tie rod & pipe joint,		Assignment NO 7 Disassembly of Question No. 5&6