

# Board of Examination (for Boiler Engineers)

## Syllabus Engineering Drawing

1. **Scale Drawing = 60-Marks**

(One or two view..... with or without assembly of Boiler or other engineering parts)

2. **Free Hand sketch = 10-Marks**

(Free hand sketching of different objects)

3. **Theory of Drawing = 10-Marks**

Kinds of lines, their use, Dimensions marking & lettering, Different measuring scales and their uses, First and third angle projections, Isometric and pictorial views, Full and half sectioning of drawing, Machine screw threads, kinds, Square, rectangle, parallelogram, triangles, circles, Hyperbola, Parabola, Diameter, Radius, Radian, Pie, Arc.

4. **Introduction to AutoCad = 10-Marks**

(Terminologies)

AUTOCAD, AREA, BACKGROUND, CHSPACE, CLOASALL, COLOR, DIMBASELINE, DIMRADIUS, DIMTEDIT, ID, LIGHT, LINETYPE, MATLIB, MLINE, MLEDIT, MULTIPLE, MVSETUP, OOPS, OVERKILL, PFACE, PREVIEW, PURGE, QDIM, QLEDER, QSAVE, RECOVER, RENDER, REVOLVE, SAVEALL, SHOWMAT, SKETCH, SPELL, SUBSTRACT, U, UNDERFINE, VPORTS, Absolute coordinates, Acad.dwt, Block, Clean Screen, Cursor, Database, Dialog box, Grid, Grips, Layer, Limits, Linetype, Modify, Object, Orthographic Projection, Panel, Plot, Pick, Section view, Units, Styles, Wizard and Zoom.

5. **Basic computer knowledge = 10-Marks**

- Introduction to machines, its features / advantages
  - What is computer, its features / advantages, main parts?
    - **Hardware devices :-** (i) **Input devices:** (Keyboard, Mouse, joystick, scanner)  
(ii) **Output devices:** (Monitor, speakers, printer, plotter, projector/Multimedia),  
(iii) **Communication devices:** (LAN card, Modem)  
(iv) **Storage devices:** (RAM, ROM, HARD DISK, CD ROM, FLOPPY, FLASH MEMORY)
    - **Software devices:-**  
**System software** (Operating system, language processors, Service software), **Application software:** (Business software, Educational /entertainment/productivity software),
  - **Applications/uses of computers:- Computer based machines:**  
(ATM, C.T Scan, Robot, Mobile, Ventilator etc)
  - **Starting and shutting of computer and its care.**
  - **Microsoft word...Introduction, Tools, commands**
  - **Introduction to MS Excel, Definition of paint**
  - **Types of computers: (By working ... Digital, analogue, hybrid)**  
(By size ... Mainframe computers, microcomputers, Minicomputers, Supercomputers, Desktops, Laptops, and Personal Digital Assistants)
  - **Introduction to Internet:** (Email, WWW, Social Media, Chat Room, Newsgroup)
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