(12) 00133

The Open University of Sri Lanka
Faculty of Engineering Technology

Study Programme	: Bachelor of Technology Honours in Engineering
Name of the Examination	: Final Examination
Course Code and Title	: **DMK 5501 – Computer Aided Drafting & Modelling** (MEK 5201)
Academic Year	: 2017/18
Date	: 06th, February, 2019
Time	: 9.30 hrs.-12.30 hrs.
Duration	: 3 hours

General Instructions

1. Name your final drawing by your index number and save in the pen drive given by the supervisor / Invigilator.
2. Save drawings periodically to prevent data loss
3. Drawings saved in the pen drive are considered as the final answer.
4. Clarify from the supervisor / Invigilator in your examination hall if you have any doubts.

Q1.

(a). Construct the solid models of the following parts described by *Fig I, Fig II, Fig III* and *Fig IV* respectively,

60 Marks

I. Base

II. Flange

III. Hexagonal Nut and Bolt (without threads)

IV. Pipe

(b). Construct the *PIPE ASSEMBLY* as shown in *Fig V*.

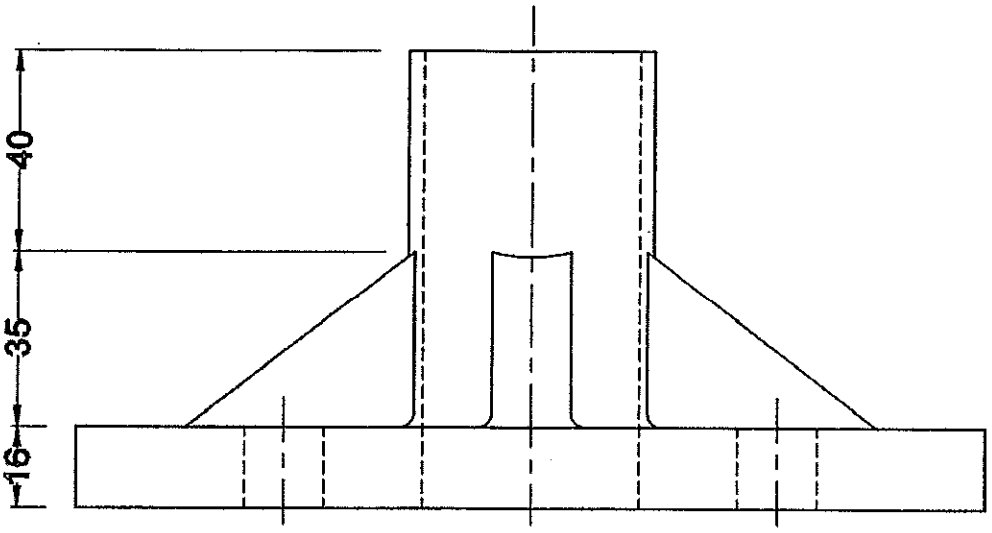
20 Marks

(c). Generate the Sectional Front Elevation ON X-X from the assembly and insert dimensions.

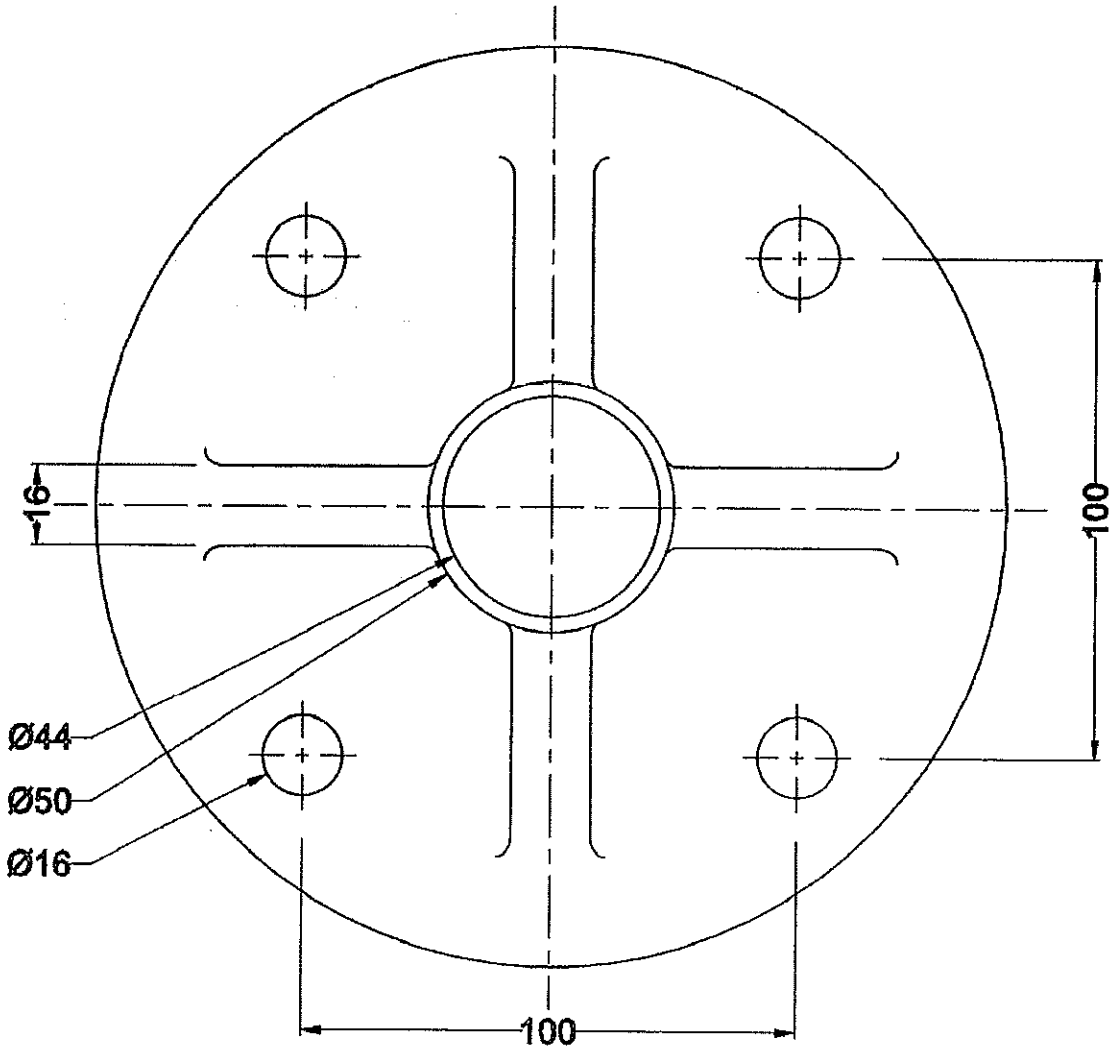
20 Marks

Note:-

- All dimensions are in millimetres and the drawings are not in the actual scale.
- Radii of casting curves may be taken as 3 mm unless otherwise specified.
- Paper size and scale are to be selected according to your preference. Prepare the cage for the drawing accordingly.
- Title of the drawing should be appear as 'FINAL EXAMINATION'.
- **Marks are given for the approach, organization of the drawing, overall views, setting of dimension styles, titles and the Standard cage.**
- Assume any missing dimensions
- **Write down your index number in the title cage**
- Do not write your name.

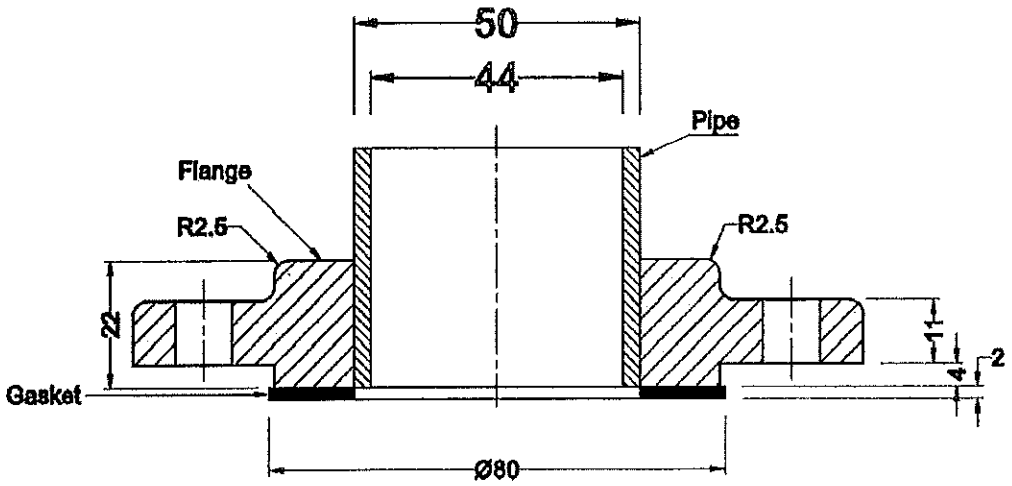


FRONT ELEVATION

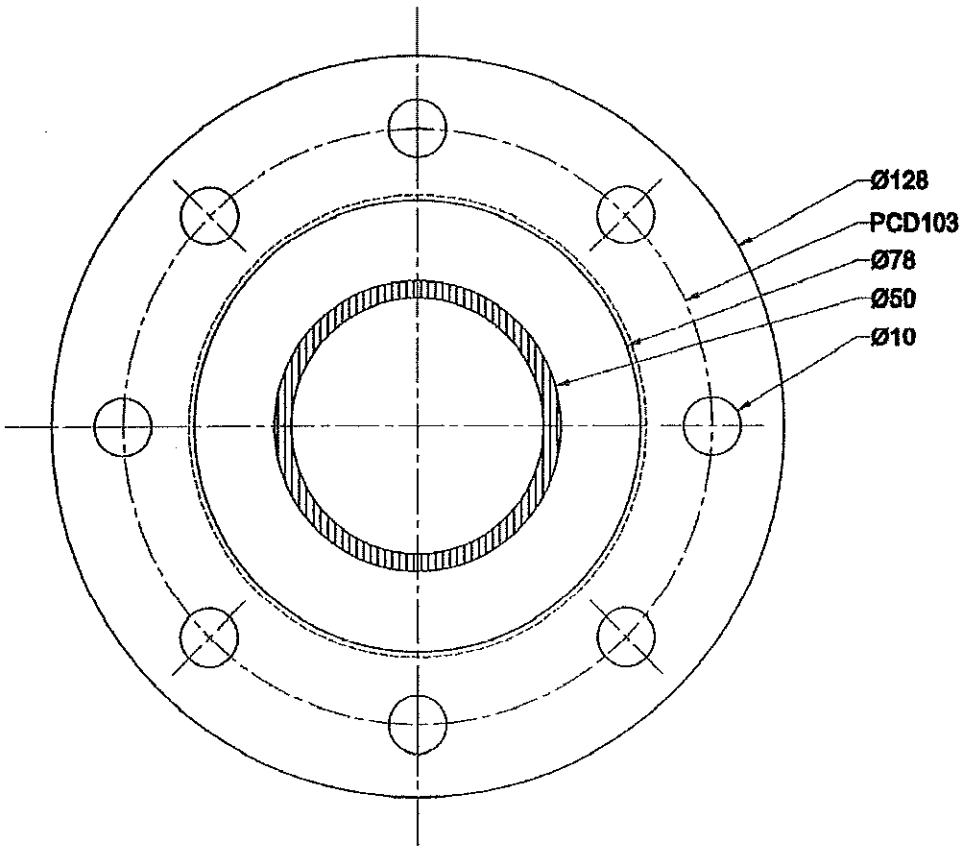


PLAN

FIG I : BASE

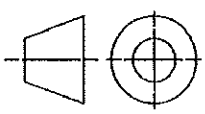


FRONT ELEVATION



PLAN

FIG II: FLANGE-PIPE CONNECTION



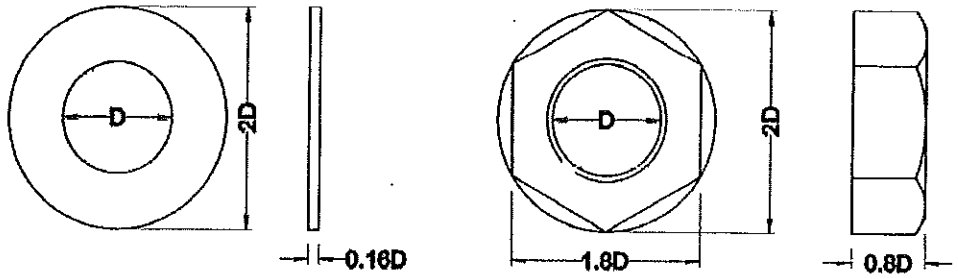


Fig III

FIG III : HEXAGON NUT

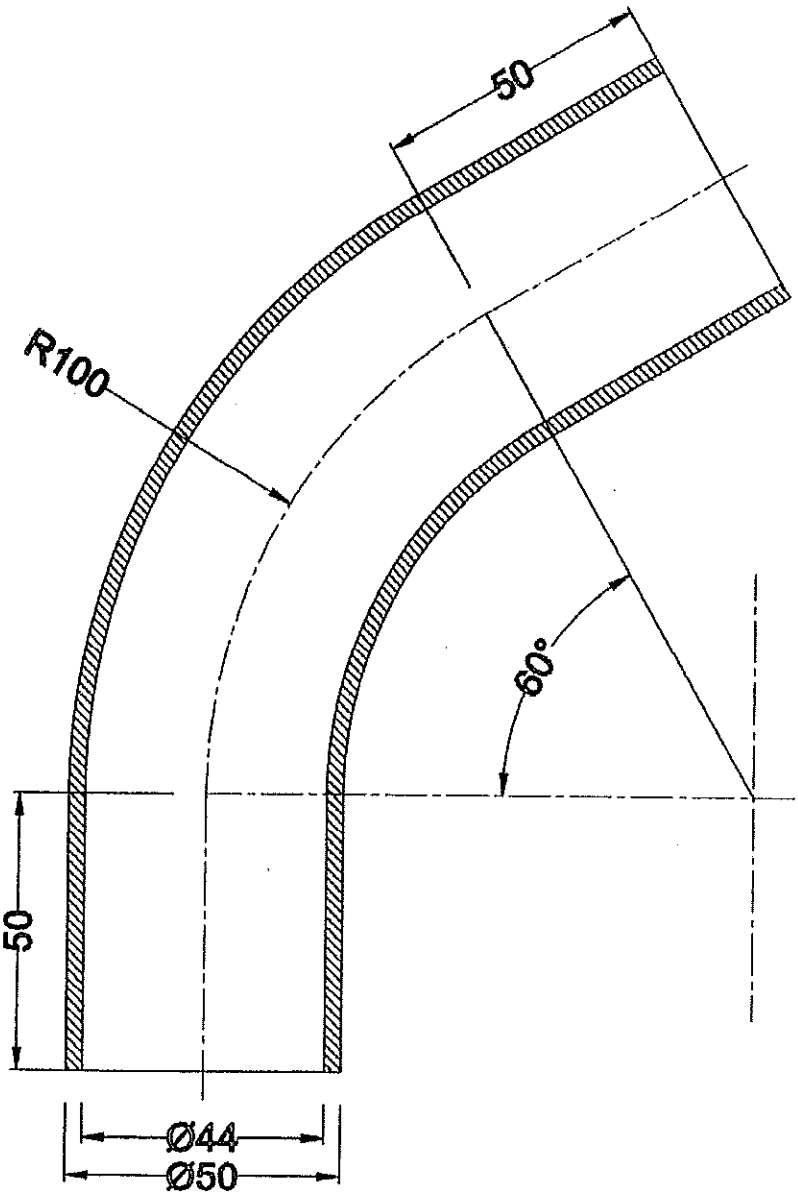


FIG IV : PIPE GEOMETRY

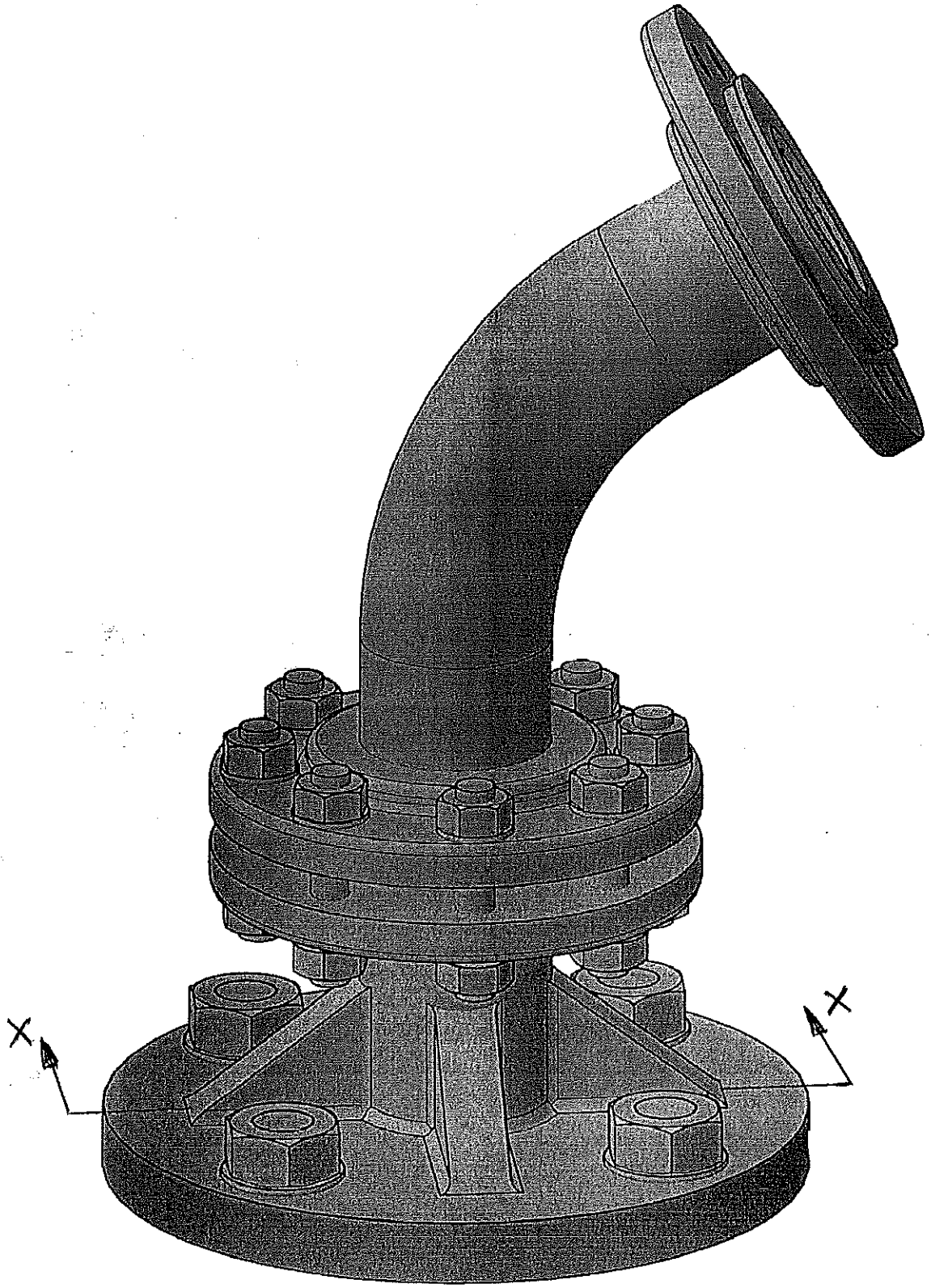


FIG V: PIPE ASSEMBLY