DIPLOMA IN MECHANICAL ENGINEERING (DME) / ADVANCED LEVEL CERTIFICATE COURSE IN MECHANICAL ENGINEERING (DMEVI / ACMEVI)

Term-End Examination

June, 2018

00728

BME-034 : MACHINE DRAWING

Time : 2 hours   *Maximum Marks : 70*

Note : *Answer all questions. Use of scientific calculator is allowed. Assume missing data, if any.*

1. Answer any *seven* questions from the following :   *7×2=14*

   (a) Give the illustration and application of the following lines :
       (i) Long chain thin
       (ii) Continuous thin wavy

   (b) List the various ways in which linear dimensions can be arranged.

   (c) Draw the simplified representation of ACME thread and Buttress thread.

   (d) Draw the symbol of I^{st} and IIIrd angle projection system.

   (e) Draw the possible Front and Side views of an object, Top view of which is as shown below in Figure 'A'.
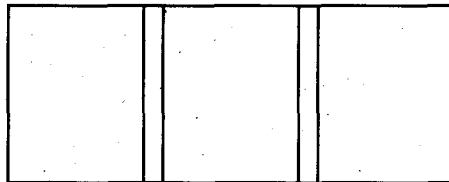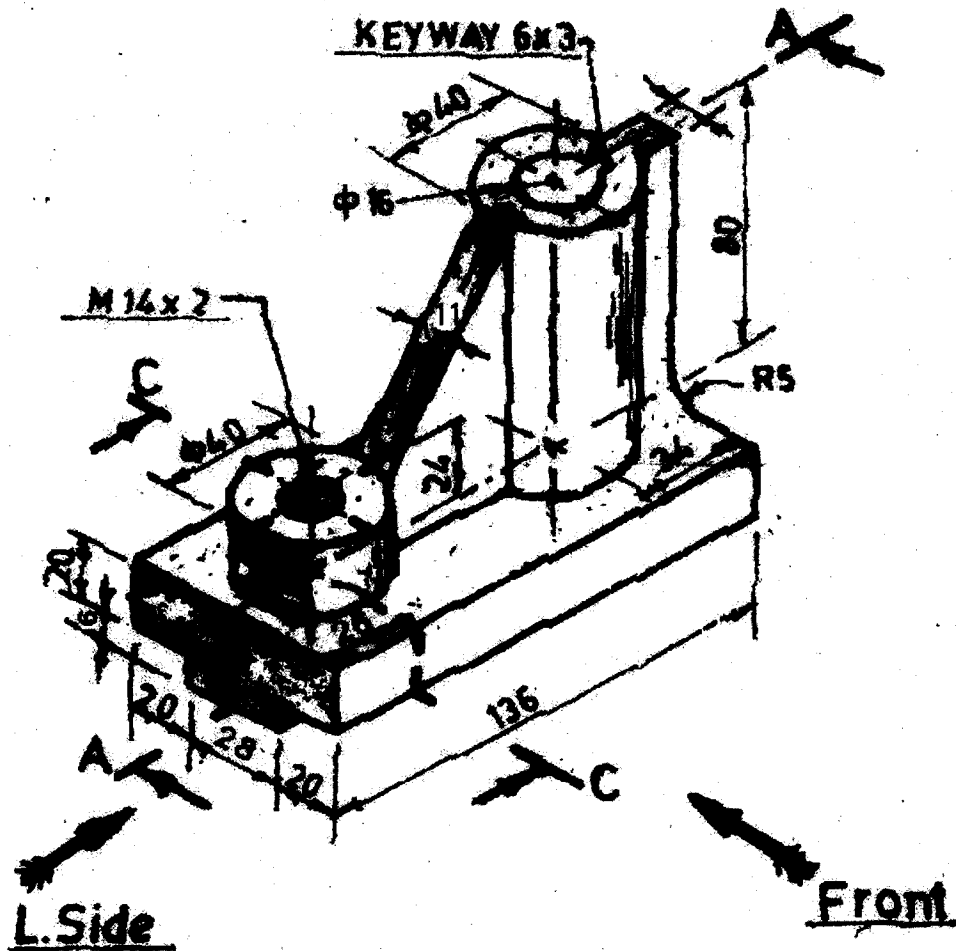

Figure A

   (f) Draw the title block showing all the rows, columns with proper dimensions.

   (g) Sketch a snap head rivet showing relevant dimensions.

   (h) Sketch a gib-head key on the shafts.

   (i) Name any two types of couplings used to connect two shafts.

2. Draw the front and top view of a single riveted Butt joint having two cover plates. Take the thickness of two cover plates as 0·625 t where 't' is the thickness of the main plate and it is equal to 16 mm. *26*

OR

Two 25 mm thick plates are joined by double riveted lap joint. Find the rivet hole diameter, margin, pitch and back pitch for chain riveting. Draw the front sectional view and plan. *26*

3. Figure 'B' shows a machine part. Draw the front view section at 'AA' and left side view at section at 'CC'. *30*

Figure B

OR

Figure 'C' shows the parts of a knuckle joint. Draw the assembled front view and top view.
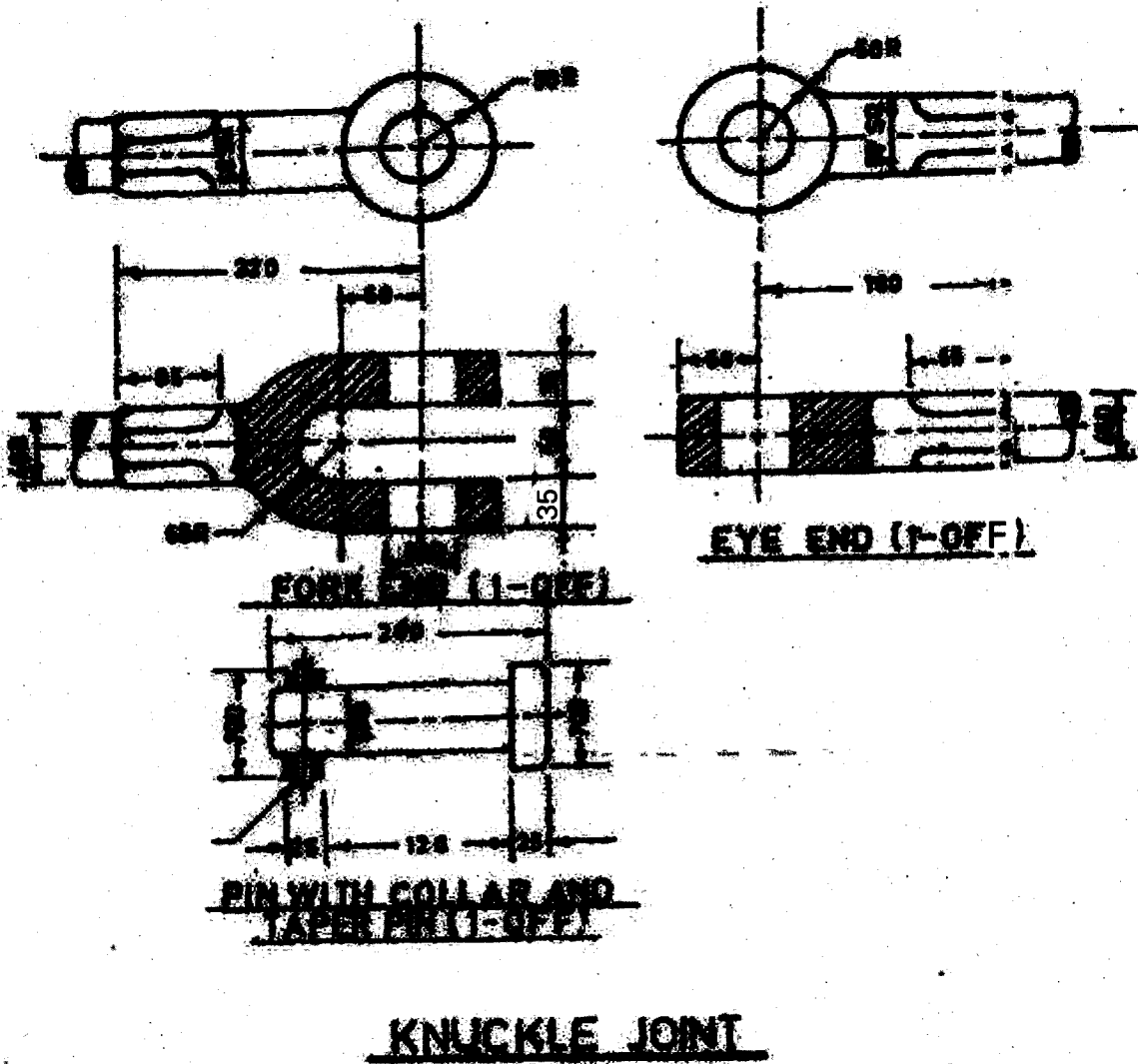
30

EYE END (1-OFF)

FORK END (1-OFF)

PIN WITH COLLAR AND
TAPER PIN (1-OFF)

KNUCKLE JOINT

Figure C