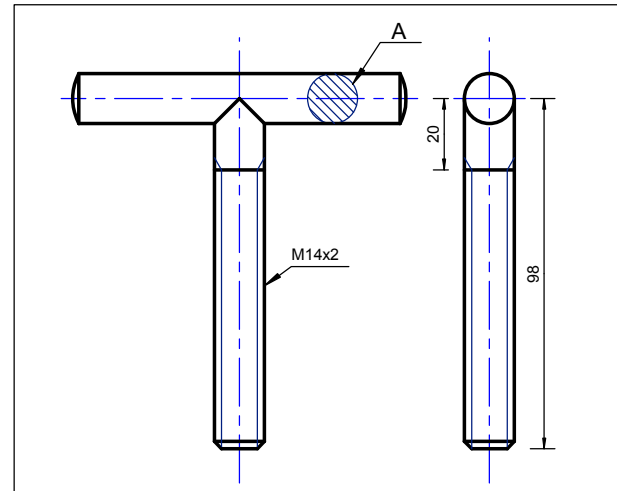
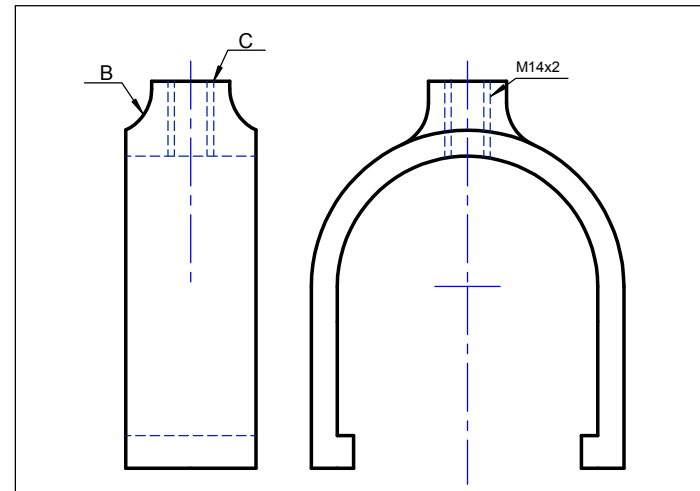


MECHANICAL  
ANALYTICAL

### Figure A



### Figure B



### Figure C

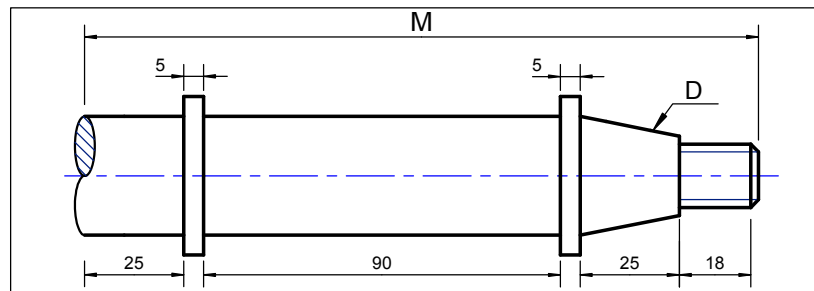


Figure D

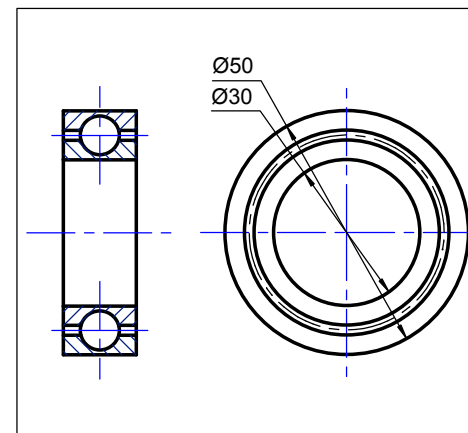


Figure E

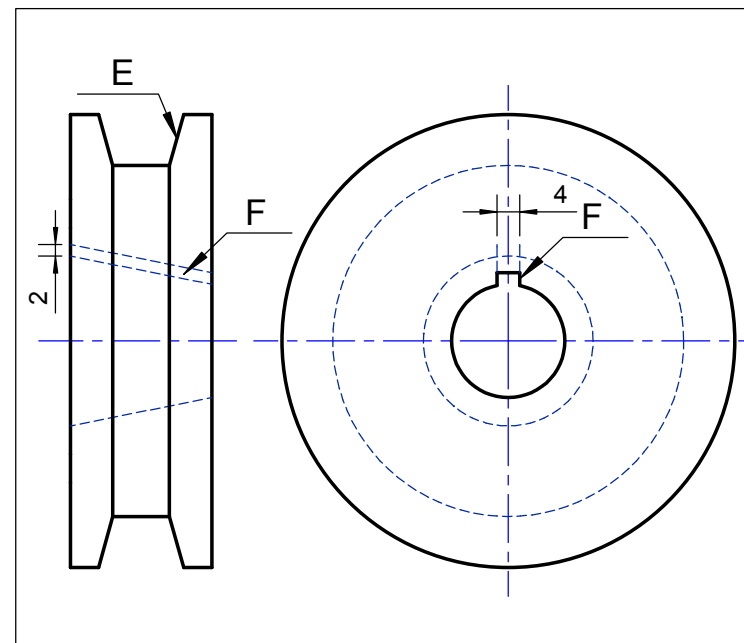
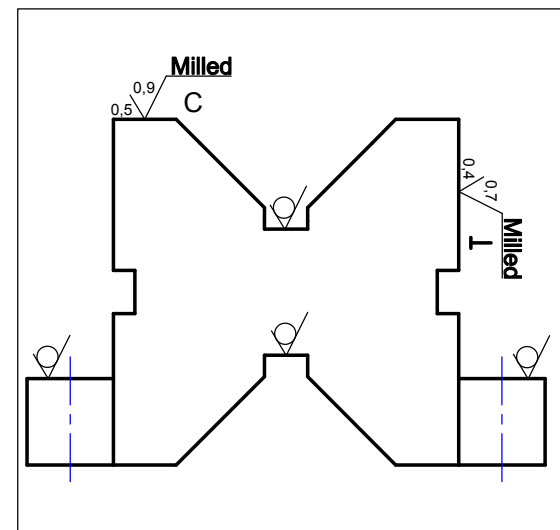


Figure H



Complete the following questions by writing the correct answer in the space provided.

- |   |                         |     |
|---|-------------------------|-----|
| 1.1 The feature 'A' in Figure A represents a  | <b>Revolved section</b> | (1) |
| 1.2 The length of the thread in Figure A is   | <b>78 mm</b>            | (1) |
| 1.3 The feature 'B' in Figure B represents a  | <b>Fillet</b>           | (1) |
| 1.4 What type of hole is shown at 'C' in Figure B?                                      | <b>Threaded/Tapped</b>  | (1) |
| 1.5 What is the dimension 'M' in Figure C?  | <b>170 mm</b>           | (1) |
| 1.6 The feature 'D' on the shaft (Figure C) is a  | <b>Taper</b>            | (1) |
| 1.7 What type of machine part is shown in Figure D?                                     | <b>Bearing</b>          | (1) |
| 1.8 The feature 'E' on Figure E represents a  | <b>Chamfer</b>          | (1) |
| 1.9 The feature 'F' on Figure E represents a  | <b>Keyway</b>           | (1) |
| 1.10 What type of key is shown in Figure D?   | <b>Woodruff</b>         | (1) |
| 1.11 The calculated thickness of the nut (Figure G) is                                  | <b>12.8 mm/13 mm</b>    | (1) |
| 1.12 How many surfaces must not be machined on Figure H?                                | <b>4</b>                | (1) |
| 1.13 What is the roughness value of the parts milled in a circular pattern on Figure H? | <b>0, 9mm</b>           | (1) |
| 1.14 Will the machine part (Figure I) be welded on site or off site?                    | <b>On site</b>          | (1) |
| 1.15 With which process will the weld be finished (Figure I)?                           | <b>Grinding</b>         | (1) |

Figure F

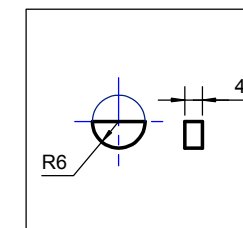


Figure G

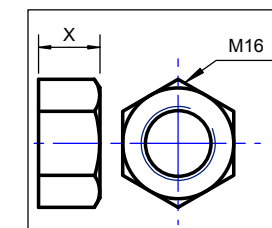
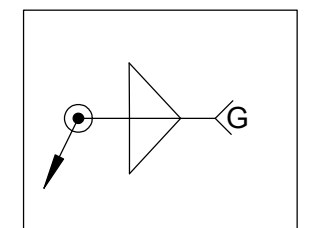


Figure 1



15 MARKS

EXAMINATION NUMBER

ANSWER SHEET 1