

# 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	: DMX3534 - Engineering Drawing
Academic Year	: 2017/18
Date	: 18 <sup>th</sup> January 2019 (Friday)
Time	: 0930 hrs – 1330 hrs.
Duration	: Four (04) hours

### General instructions:

- (i) Clarify any doubts with the supervisor/invigilator in your examination hall.
- (ii) **The Question 01 in Section A is compulsory.** Answer this question and another one of your choice from **Section B**.
- (iii) It is strongly advised to prepare a sketch of the solution on a rough paper, before drawing it on the drawing paper. If you wish, you could attach the sketch to your answer script.
- (iv) **Spend approximately three hours for question 01** and the remaining time for the other question.
- (v) Use both sides of the drawing paper.
- (vi) Draw the standard cage, Title box, projection symbol, etc. only for question 01.  
**(Marks will be deducted if the title block is not properly placed)**
- (vii) All construction details, centerlines, etc. should be clearly shown.
- (viii) You are strictly advised to write your index number, Registration Number and course code only on the drawing paper. Do not write your name or provide any other information.

### Section A (Compulsory)

Q1. Fig 01 shows the exploded orthographic views of the following components of a Tool Holder which is used to hold the cutting tool of a Lathe Machine.

1. Base Plate
2. Tool Holder
3. Mover
4. Spring Washer (4 Nos)
5. Knob
6. Handle
7. Stud
8. Groove Screw (4 Nos)
9. Set Screw (4 Nos)

10. Spring (4 Nos)

11. Spherical Steel Ball(4 Nos)

Assemble the above components with the handle of the tool holder(6) positioned to the right hand side of the mover(3) and draw the following views to a scale of full size in first angle projection.

- (a) Sectional front elevation on B-B.
- (b) End Elevation projected to the right of view(a).
- (c) Plan projected from view(a).

- Note:
1. No hidden details are necessary.
  2. Give only ten main dimensions in the drawing. Radii of casting curves may be taken as suitably.
  3. Assume any missing dimensions.
  4. All dimensions are in millimeters.
  5. Indicate the projection symbol and print the main title, sub titles and the scale.

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### Section B

- Q2.** The Fig. Q2 shows two orthographic views of an object in first angle projection. Draw the isometric view of the object. Arrows shows the nearest point. Use natural scale.
- Q3.** Fig.Q3 shows an elevation of a right circular cone with removed top and lower side portions.
- (a) Draw the given elevation and plan.
  - (b) Draw the development of the surface of the truncated cone.

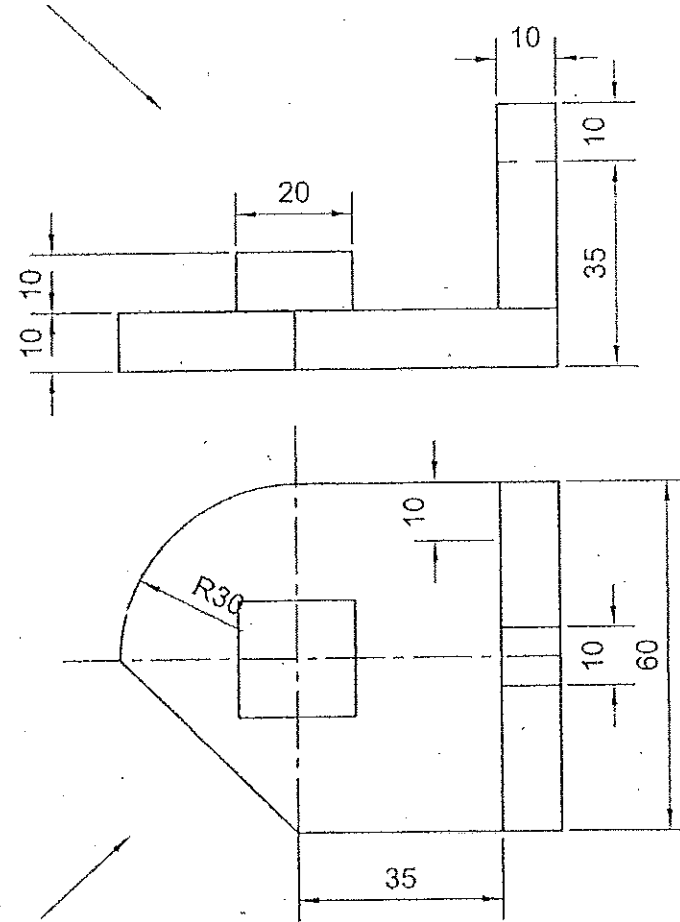
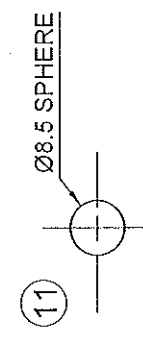
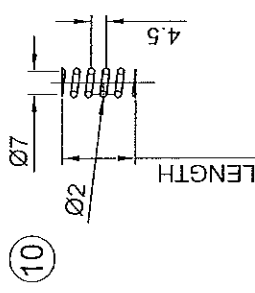
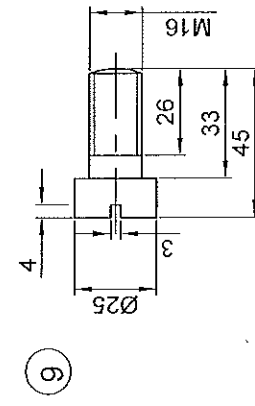
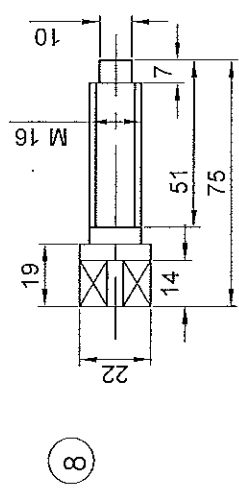
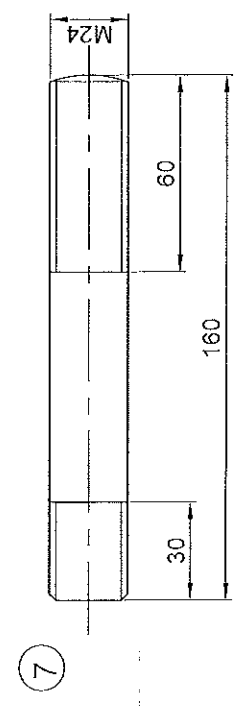
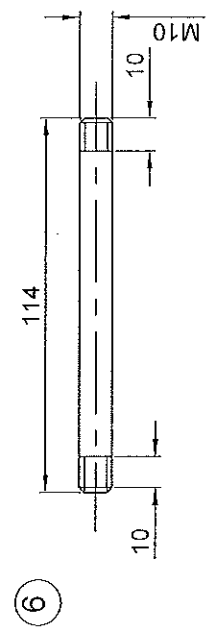
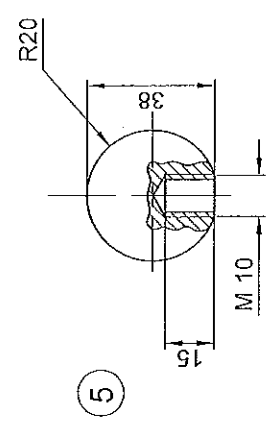
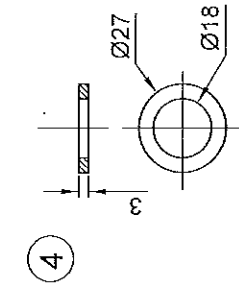
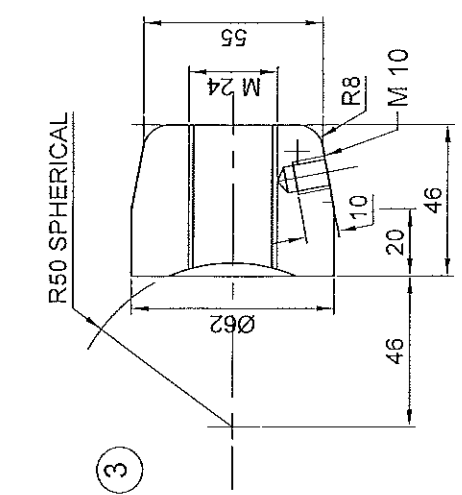
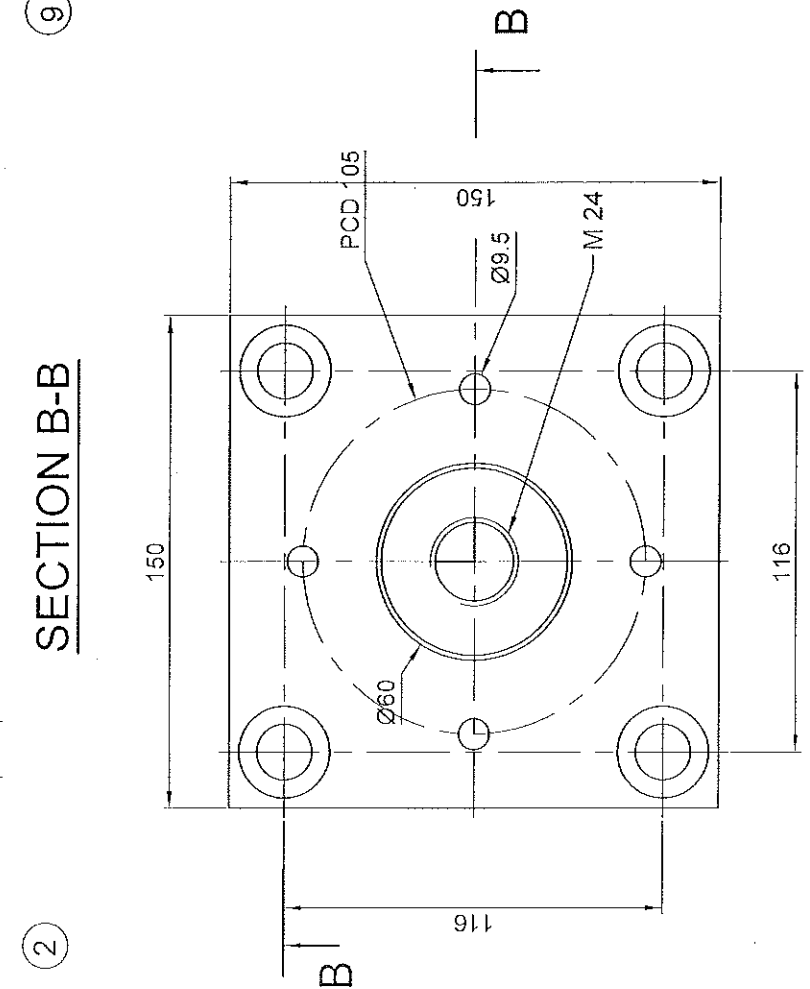
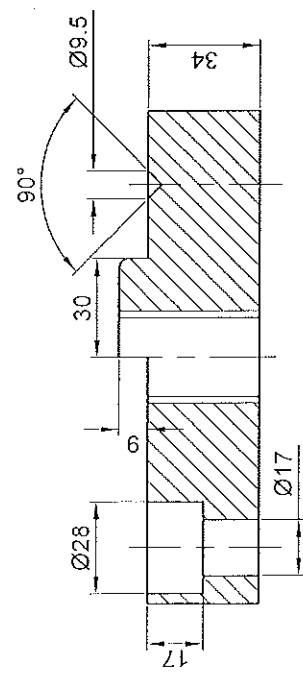
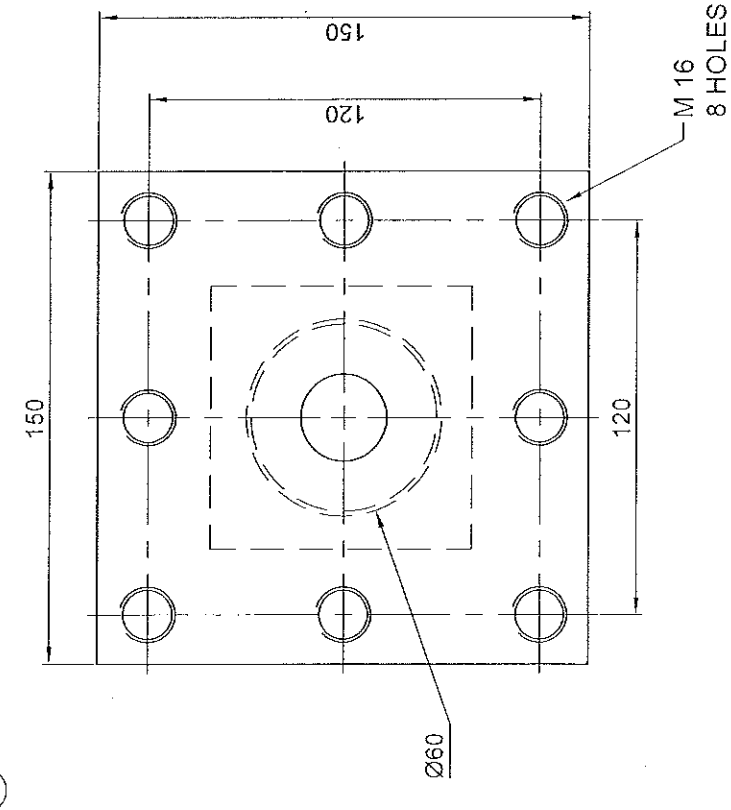
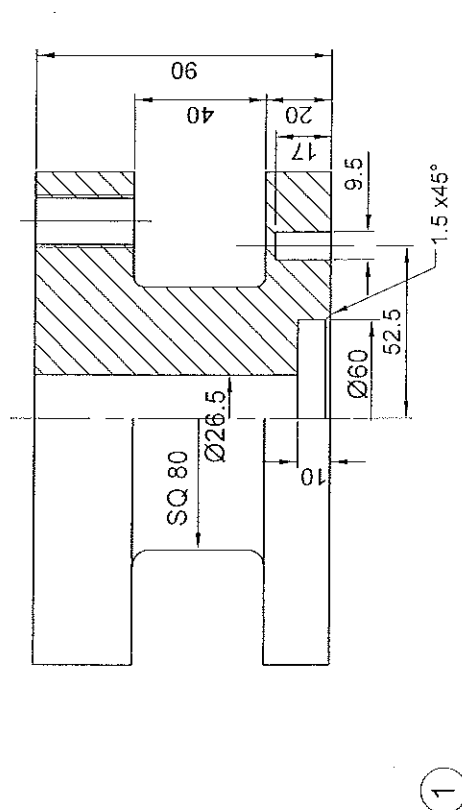


Fig. Q2.



Fig.Q3.

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# TOOL HOLDER

Not to scale

All dimensions in mm

Fig. Q1

