

ID No. \_\_\_\_\_ Name \_\_\_\_\_

**BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI  
DUBAI CAMPUS**

**Dubai International Academic City, Dubai**

**I Year – I Semester 2012 – 2013**

**COMPREHENSIVE EXAMINATION**

<b>Course No.</b>	:	BITS F110
<b>Course Title</b>	:	Engineering Graphics
<b>Nature of Exam</b>	:	Closed Book
<b>Weightage</b>	:	40 % (80 Marks)
<b>Duration</b>	:	90 minutes
<b>Date</b>	:	02 January 2013

NOTE: (a) Answer all questions  
 (b) Save your drawings every 5 minutes.  
 (c) Use First Angle Projection

Q1. The front view of a line TS measures 130mm long and makes  $40^{\circ}$  to XY line. The end point T is in HP and 90mm in front of VP. The line is inclined  $45^{\circ}$  to VP. Draw its projections. **(30 Marks)**

Q2. A Pentagonal pyramid of base side 50mm and height 100mm is resting on its base on ground with one of its base sides inclined at  $25^{\circ}$  to VP. The pyramid is cut by a cutting plane inclined at  $30^{\circ}$  to HP and perpendicular to VP, passing through the axis at a distance of 40mm from the base. Draw the following

- Projection of the pyramid
- Sectional view
- True shape of the section
- Lateral surface development of the truncated pyramid

**(50 Marks)**

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Q1. The end point A of a line AB is 40mm above HP and 50mm in front of VP. The line is inclined at 35° to HP and the front view is inclined 50° to XY. The top view is 150mm long. Draw its projections. **(30 Marks)**

Q2. A cone of base diameter 100mm and height 120mm is resting on the ground on its base. The cone is cut by a cutting plane inclined at 25° to HP and perpendicular to VP. The cutting plane cuts the axis of the cone at a distance of 50mm from the base. Draw the following

- Projection of the cone
- Sectional view
- True shape of the section
- Lateral surface development of the truncated cone.

**(50 Marks)**

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Q1. A line CD is inclined at  $40^\circ$  to VP, with its end point C 40mm in front of VP and 50mm above HP. The distance between the projectors is 130mm, with the front view end point D is 150mm above HP and in front of VP. Draw its projections. **(30 Marks)**

Q2. A cylinder of base diameter 100mm and height 120mm is resting on its base on the ground with the axis perpendicular to HP and Parallel to VP. It is cut by a cutting plane inclined at  $30^\circ$  to HP and perpendicular to VP passing through the midpoint of the axis. Draw the following

- Projection of the cylinder
- Sectional view
- True shape of the section
- Lateral surface development of the truncated cylinder.

**(50 Marks)**

Birla Institute of Technology and Science, Pilani  
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A1

Dubai International Academic City, Dubai.  
I Year – I Semester 2012– 2013

TEST-I

Course No. : BITS F110  
Course Title : Engineering Graphics  
Nature of Exam : Closed Book  
Weightage : 20 %  
Duration : 60 minutes  
Date : 12-11-2012

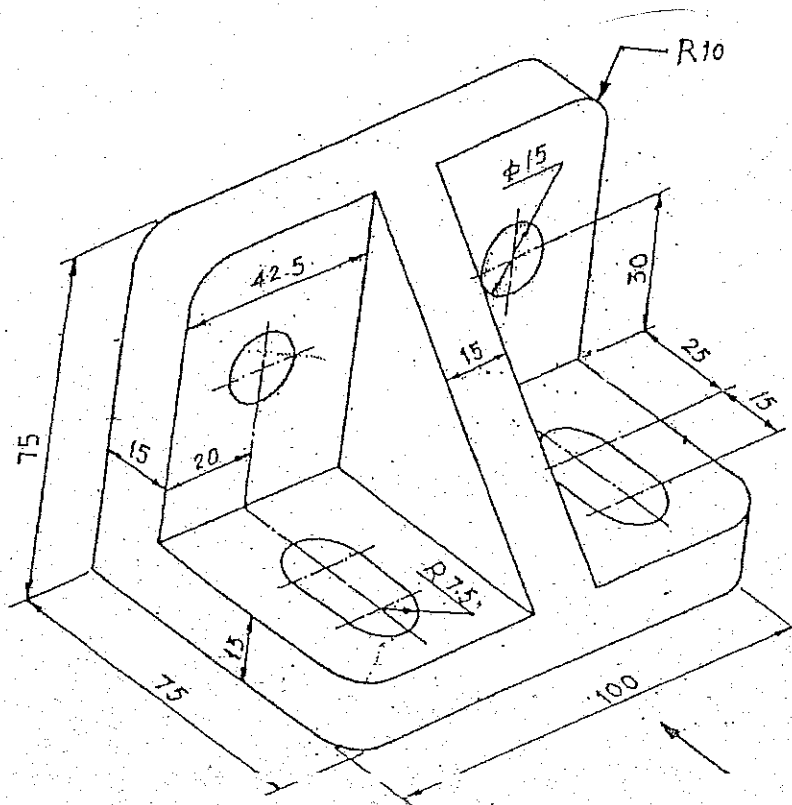
Instructions

1. Answer all questions
2. Create a title block
3. Save the drawing as separate file for each question.
4. Save your drawings every 5 minutes
5. Use first angle projection
6. Draw to 1:1 scale

Questions

1. Draw the following views for the given object & dimension them  
a) Front view  
b) Top view

25 Marks



P.T.O

**Birla Institute of Technology and Science, Pilani**  
**Dubai Campus**  
Dubai International Academic City, Dubai.  
I Year – I Semester 2012– 2013

A1

TEST-I

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Course Title : Engineering Graphics  
Nature of Exam : Closed Book  
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Date : 12-11-2012

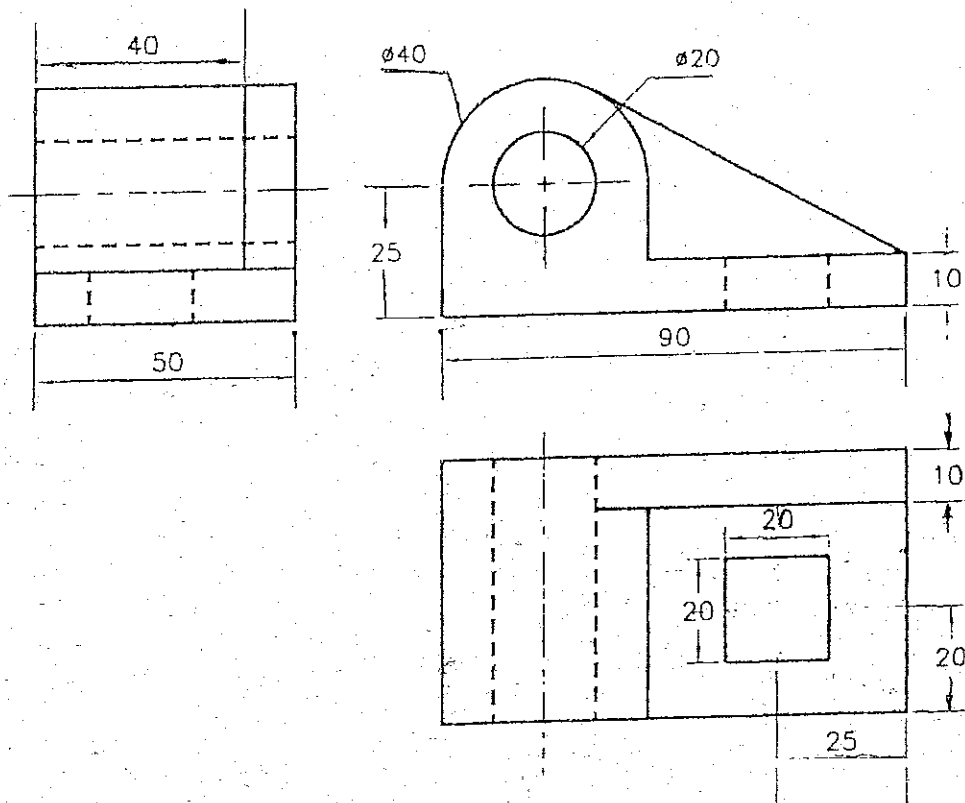
Instructions

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6. Draw to 1:1 scale

Questions

2. Draw the Isometric view from the given orthographic view.

15 Marks



Birla Institute of Technology and Science, Pilani  
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A2

Dubai International Academic City, Dubai.  
I Year – I Semester 2012– 2013

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Weightage	:	20 %
Duration	:	60 minutes
Date	:	12-11-2012

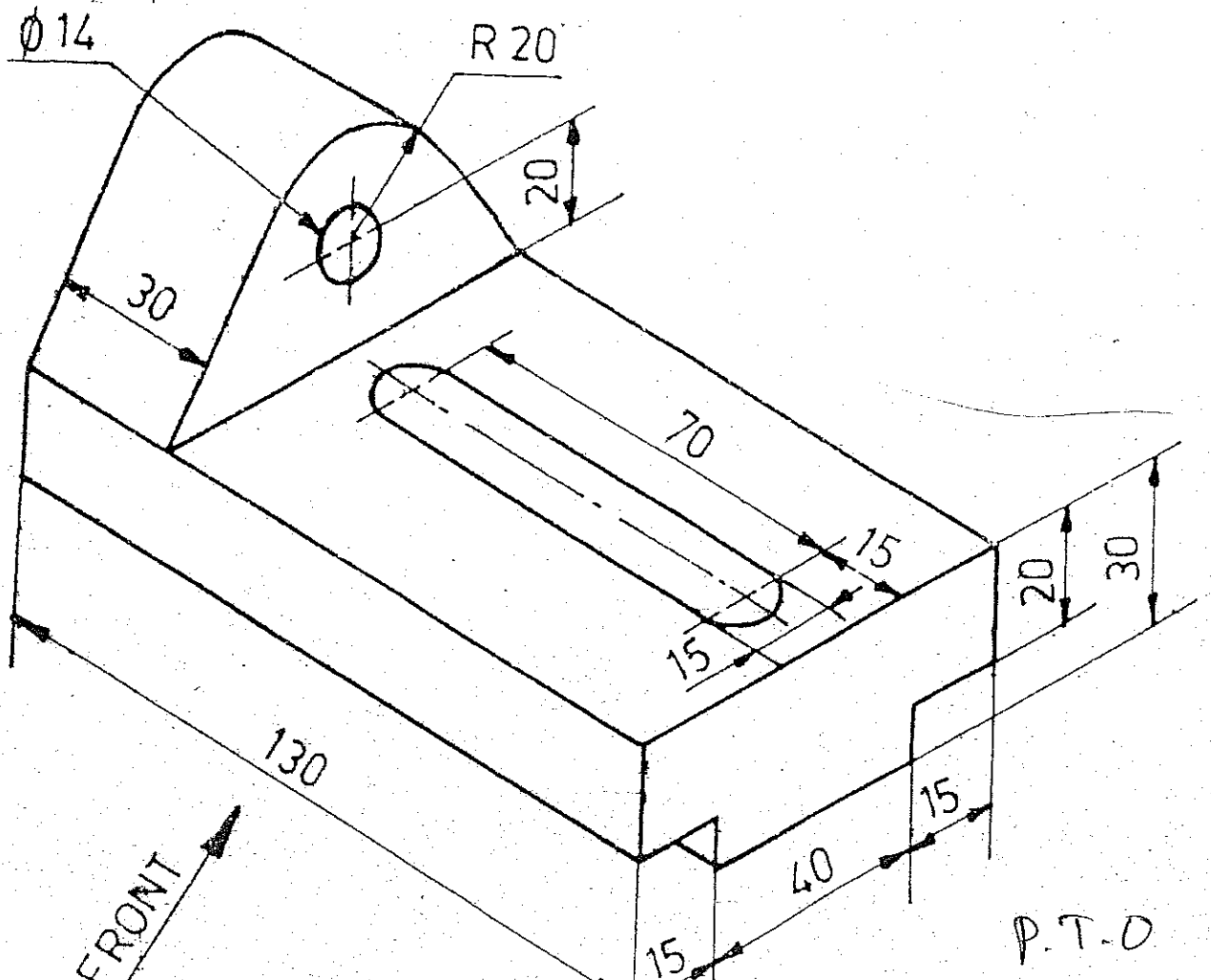
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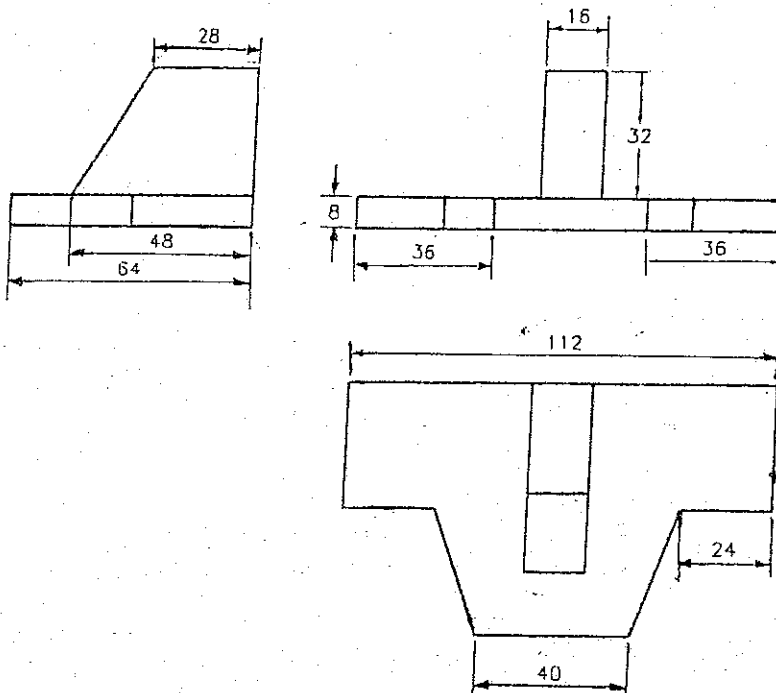
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Birla Institute of Technology and Science, Pilani  
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A3

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TEST-I

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Duration : 60 minutes  
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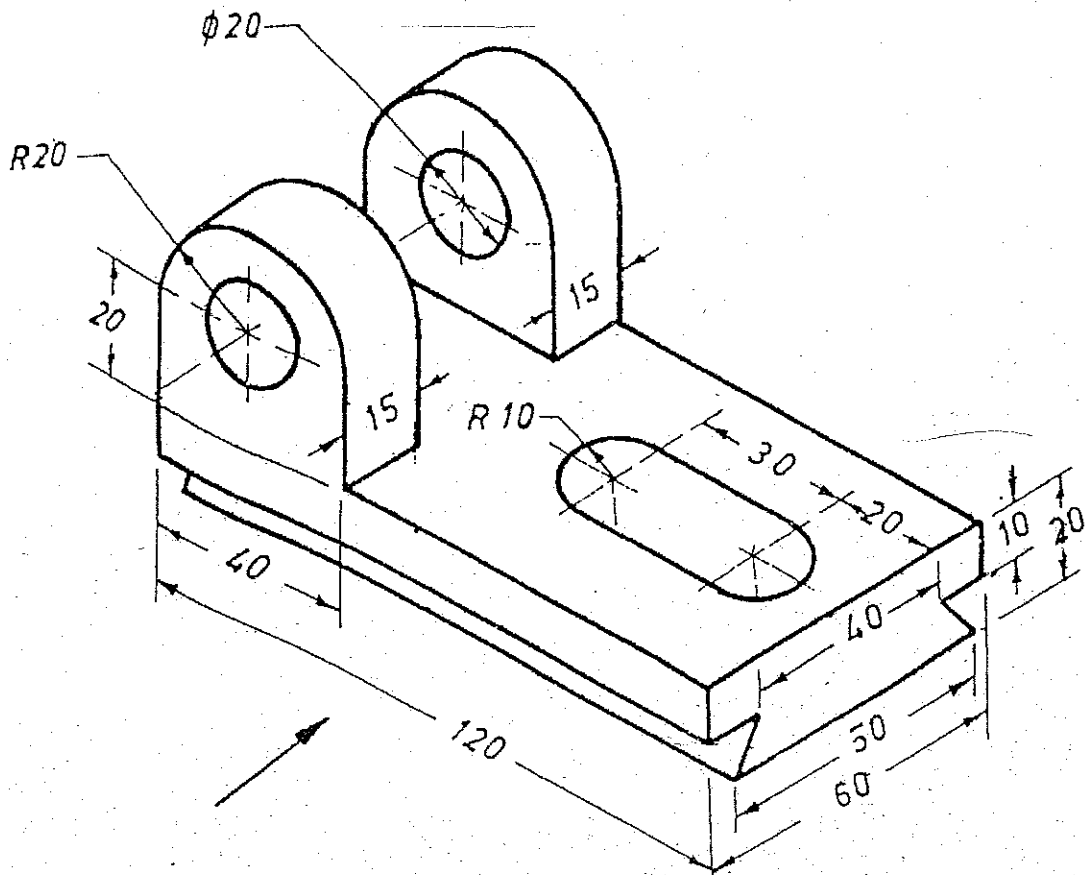
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  - a) Front view
  - b) Top view

25 Marks



P.T.O



Birla Institute of Technology and Science, Pilani  
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A3

Dubai International Academic City, Dubai.  
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TEST-I

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15 Marks

