



Study Programme	: Bachelor of Technology (Engineering)
Name of the Examination	: Final Examination
Course Code and Title	: MEX3211 – Communicating Engineering Information
Academic Year	: 2014/15
Date	: 27 - 08 - 2015
Time	: 1330hrs – 1730hrs
Duration	: 4 hours

Write your Index number clearly

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General instructions

1. This question paper consists of two sections **PART A** (5 questions) and **PART B** (4 questions).
2. Answer all questions. PART A will carry 60 marks and PART B will carry 40 marks.
3. Spend at least two and a half (2 ½) hours for PART A and the remaining time for PART B.
4. Answers should be written or drawn within the space provided under each question in both PART A and PART B. No additional papers should be used for any question.
5. Any answers given in separate sheets other than this question paper will not be considered for evaluation.
6. You may use drawing instruments (other than drawing board and T-ruler) at your discretion.
7. **All sketches must be neatly drawn and proportional in sizes.**
8. It is extremely important that you do not remove the question paper, or any part of the question paper, from the examination hall.
9. Remember to **write your index number** clearly in the space provided above. If you have not received an index number, write your registration number in the space above. **Do not write your NAME.**
10. If you are in doubt, consult the supervisor or an invigilator conducting the examination.

PART A**Question 01**

- (a) The meaning of the word 'information' is said to be very much context-dependent. Elaborate by taking appropriate examples. [04 Marks]

- (b) *On one hand, the choice of medium constraints the message that can be delivered. On the other, the medium has to be selected to suit the message.* Explain the above mentioned statement in relation to communicating of information. [06 Marks]

- (c) Briefly explain the role of the internet in the information society. [02 Marks]

Question 02

(a) The Government has decided to construct a subway system (underground railway) in the city of Colombo to ease the traffic congestion. List two types of technical reports that will be used in the above project, before the implementation. [02 Marks]

(b) Describe the purpose of the above listed reports in part (a) and their main contents. [06 Marks]

(c) What are the precautions that you need to take into consideration in relation to the writing style, for the above reports mentioned in part (a) [04 Marks]

Question 03

- (a) List out at least, four salient features that a questionnaire should contain in order to gather information effectively. [04 Marks]

- (b) What are the other methods available for gathering of information, apart from the use of questionnaires? Briefly describe one of the methods. [04 Marks]

- (c) *Thinking critically about the information gathered, is often considered as a good practice for making use of the data in a more effective manner.* Elaborate on this statement by taking a suitable example. [04 Marks]

Question 04

You have been requested by your company to conduct an oral presentation at a launch of a new office software, to prospective clients.

- (a) Explain the importance of having a prior knowledge of the audience, to make your presentation more effective. [04 Marks]

- (b) What type method would you select to conduct the presentation? Justify the reason for selecting the above method. [04 Marks]

- (c) Assuming that you are using visuals in your presentation, explain the criteria that you would follow in order for the visuals to be effective in delivering the message. [04 Marks]

Question 05

In an examination marked out of 100, most of the candidates have got marks between 41 to 50. Of the others, 5 have got less than 10; 10 between 11 to 20; 12 between 21 to 30; 20 between 31 to 40; 10 between 51 to 60; 7 between 61 to 70 and 2 above 70. The total number of candidates who sat the examination is 100.

(a) Present the above information in an appropriate (standard) manner. [03 Marks]

(b) Explain how the above information can be displayed efficiently. [03 Marks]

(c) Find the Mean and Standard Deviation of the above set of data. [06 Marks]

PART B

Note: Dimensions are given only for guidance, and you are not required to use exact dimensions, but, sketch your answers to suitable proportions.

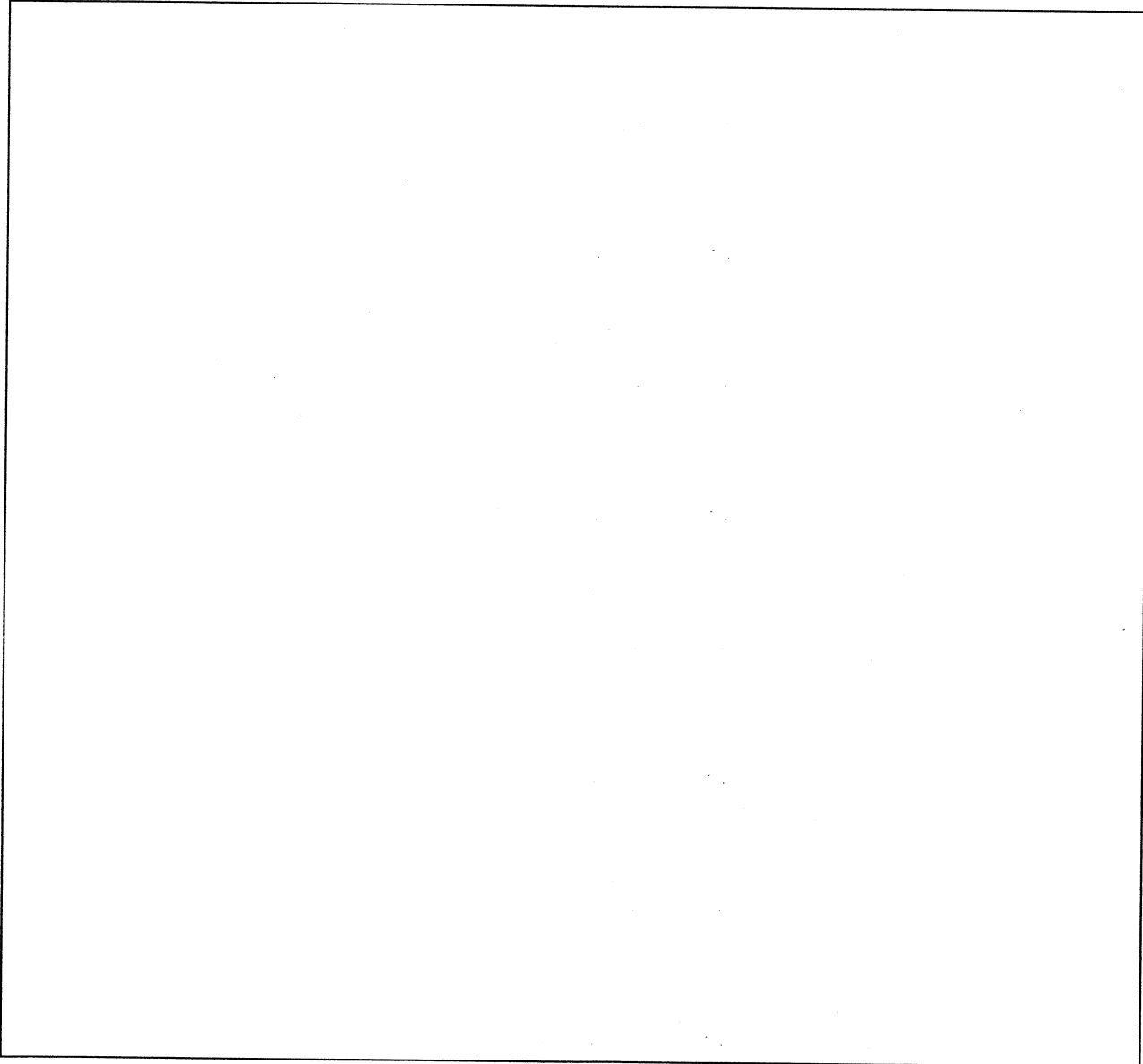
Question 06

Construct the **involute**s of the following:

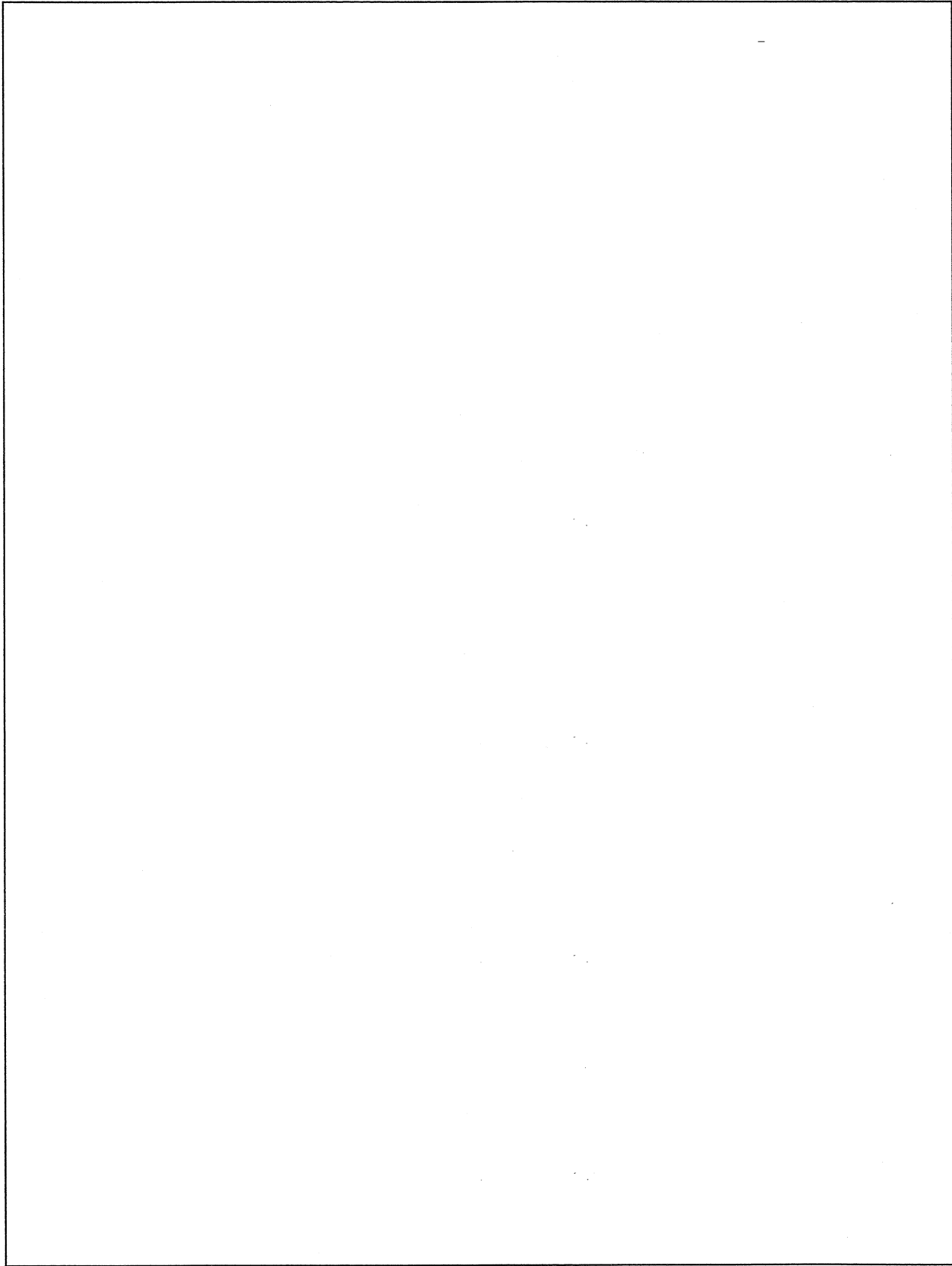
- i) A **square** of 20 mm sides (03 marks)
- ii) A **circle** of 40 mm diameter (03 marks)

State the steps of your construction in (i) and (ii) (04 marks)

Answer cage



Answer cage

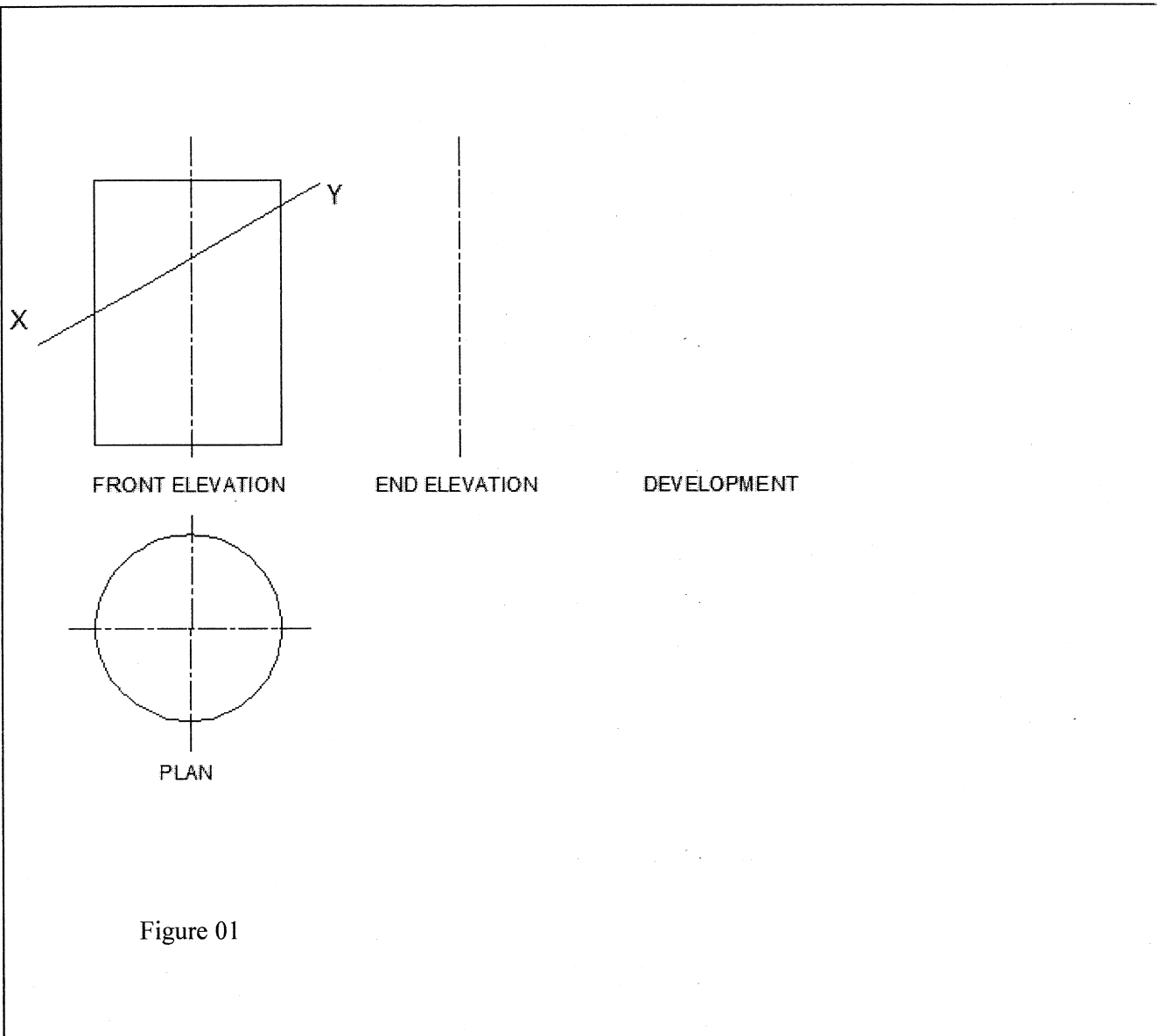


Question 07

Orthographic projections of a **hollow cylinder** are shown in figure 01. The upper part of the cylinder is cut off by an inclined plane X-Y, which makes an angle 30° with the horizontal plane.

(a) Sketch the **development of the truncated cylinder** (06 marks)

(b) Briefly state the **steps of your construction** (04 marks)

Answer cage

Question 08

Figure -02 shows the pictorial view of a **support bracket**.

- (a) Sketch the following views in "first angle projection".
- i) **Front Elevation** viewed from direction 'A' (03 marks)
 - ii) **Plan** viewed from top (03 marks)
 - iii) **End Elevation** viewed from direction 'B' (02 marks)
- (b) Name views, show hidden details, and indicate **4 major dimensions** in each view without repeating the same. (02 marks)

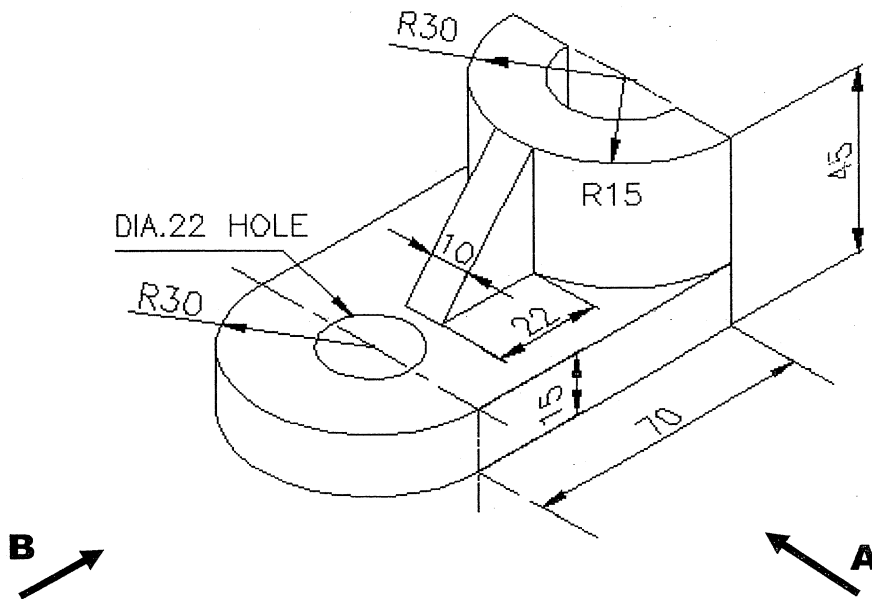
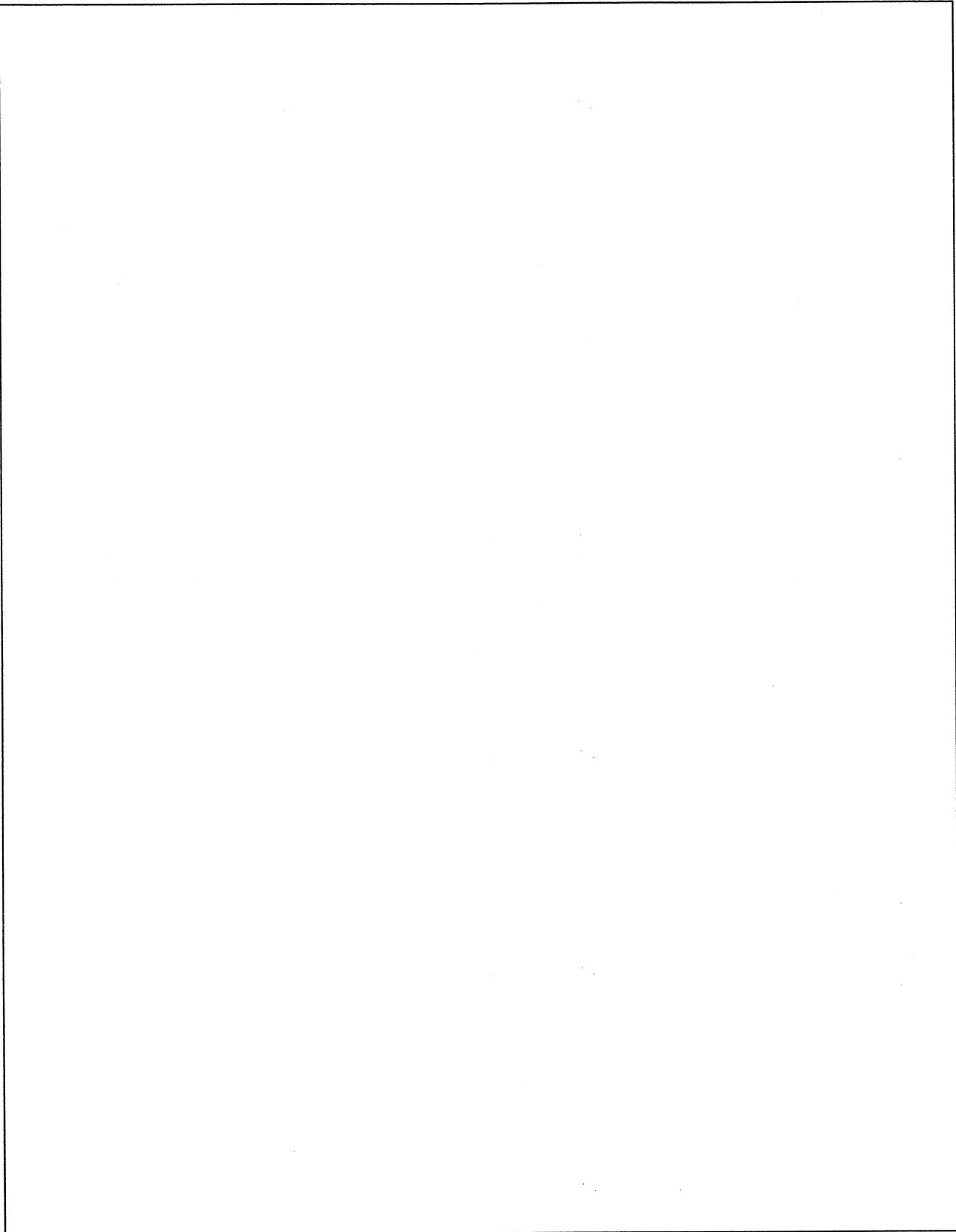


Figure 02

Answer cage



Question 09

Figure 03 shows the front elevation and plan of a cast iron object. Sketch the **isometric view of the object** taking the **nearest point** as given by the arrows.

(Correct near point – 03 marks + Isometric view – 07 marks = 10 marks)

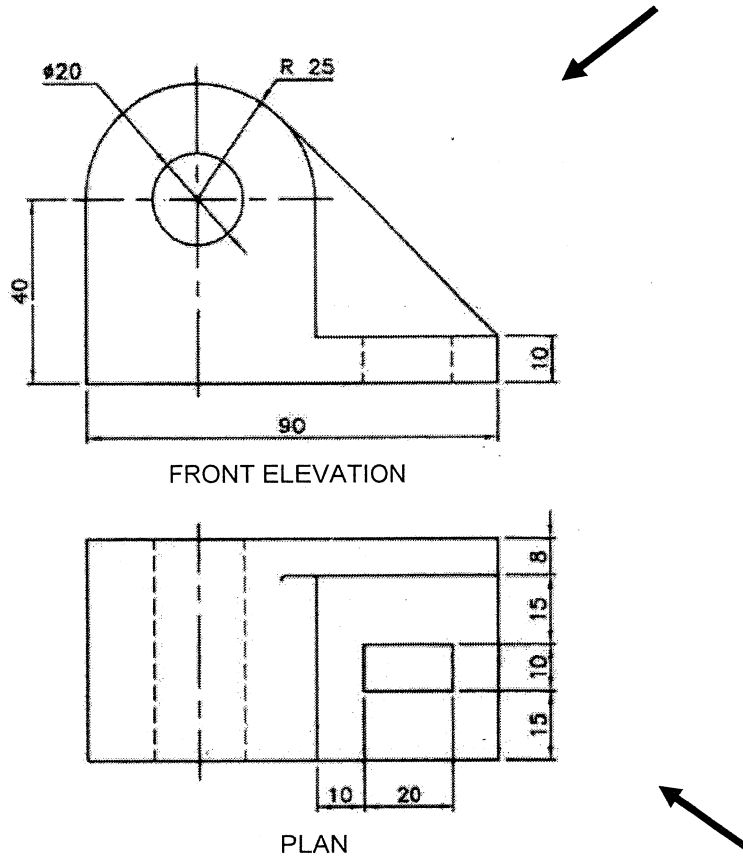
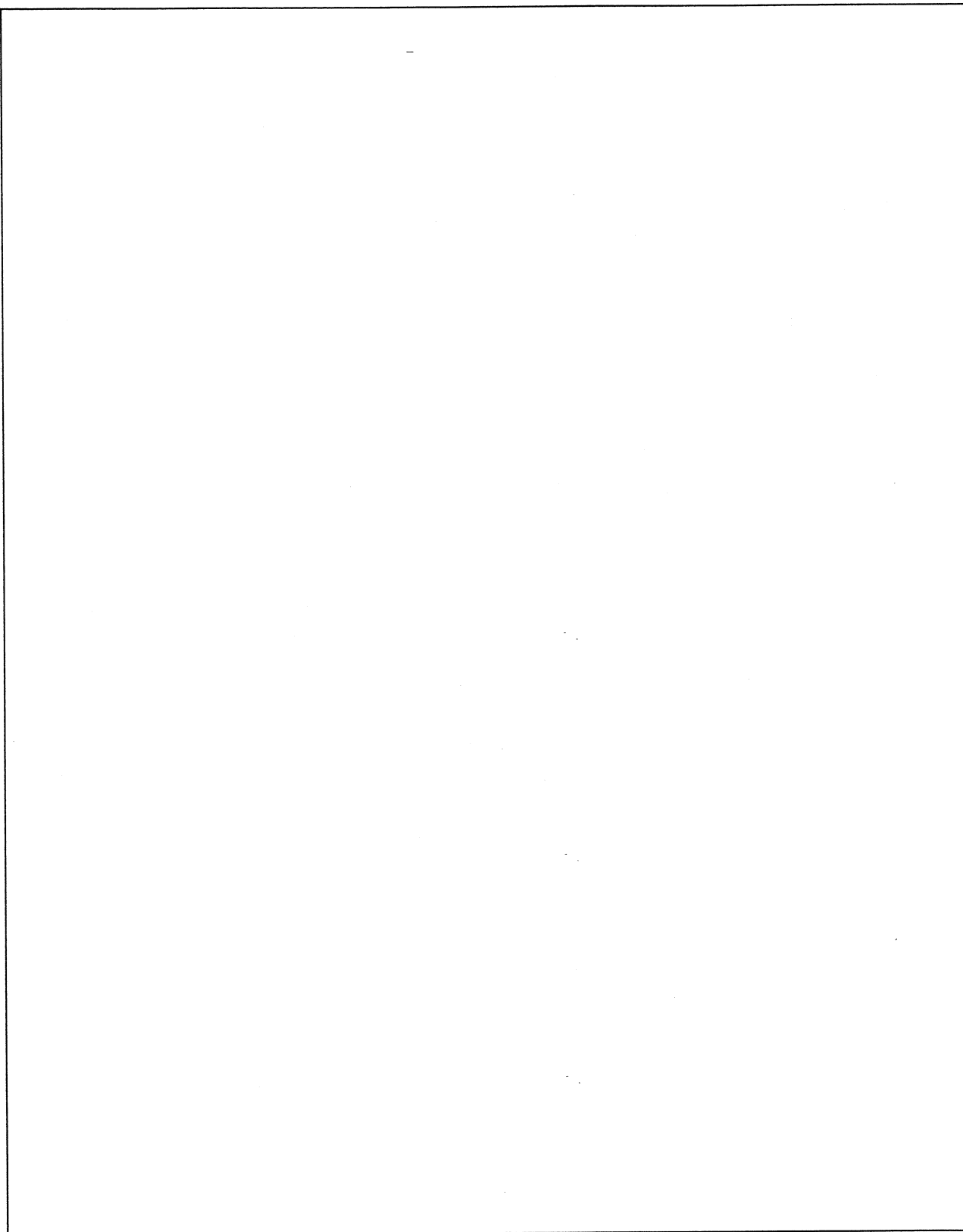


Figure 03

Answer cage



END