

QUESTIONS AND ANSWERS

MECHANISMS

This mobile revision pdf is based on detailed work found in the 'MECHANISMS' section. Tap on the green and yellow link buttons below to go to the website.



Tap the blue button to view all work covered by this Revision PDF



QUESTIONS AND ANSWERS

MECHANISMS

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HOW TO USE THIS REVISION PDF

Read and attempt answering each question, before following the link to a potential answer. Also, consider working in pairs.

QUESTIONS ONE TO FIVE

QUESTIONS SIX TO TEN

QUESTIONS ELEVEN TO FIFTEEN

**TAP / CLICK THE LINK
BUTTON FOR ALL
MOBILE APPS**



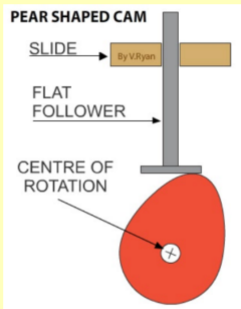
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QUESTION 1a

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What is a CAM?

Tap the image for a potential answer



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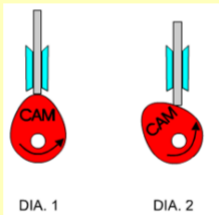
QUESTION 1b

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Sketch a sequence of diagrams, that represent the movement of this pear shaped CAM, through one cycle of rotation.

(the first two diagrams have been drawn for you)

Tap the image for a potential answer



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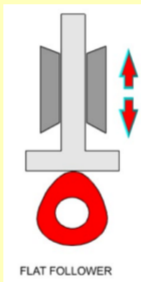


QUESTION 2a

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A flat follower is shown below.
Draw and label three other types of follower.

Tap the image for a potential answer



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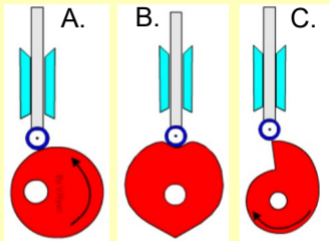


QUESTION 2b

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**What is a CAM profile?
Name the three CAM profiles
below.**

Tap the images for a potential answer



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slide / page.



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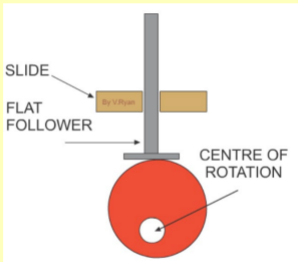


QUESTION 3a

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What effect does an eccentric CAM have on the rate of speed of the follower?

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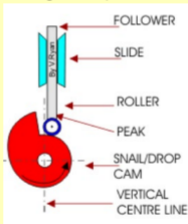


QUESTION 3b

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Name this CAM profile.
How does it influence the movement of the follower?
What could happen if the CAM profile rotates in a clockwise direction?

Tap the image for a potential answer



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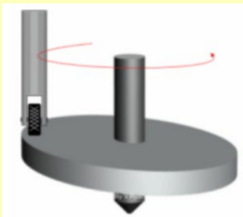


QUESTION 4a

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Name and describe this type of CAM.

Tap the image for a potential answer



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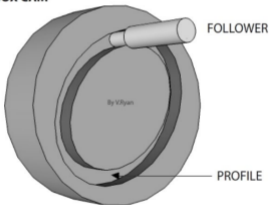
QUESTION 4b

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This is a Box CAM. Describe one practical application of this type of CAM.
(Include a sketch / diagram)

Tap the image for a potential answer

BOX CAM



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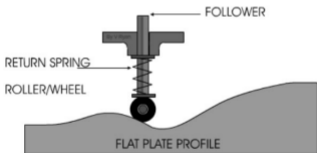


QUESTION 5a

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This is a Flat Plate CAM.
Describe how it functions.
Include in your description, the
return spring and roller follower.

Tap the image for a potential answer



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slide / page.



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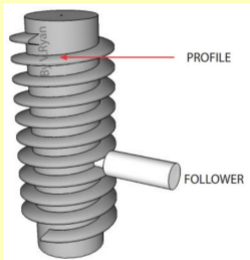


QUESTION 5b

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Name this unusual CAM and describe how it works.

Tap the image for a potential answer



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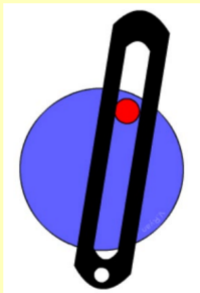


QUESTION 6a

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Name this type of linkage.

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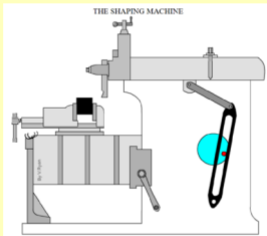
QUESTION 6b

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The Shaping Machine relies on the linkage you named in the previous question.

How does it drive the machine?

Tap the image for a potential answer



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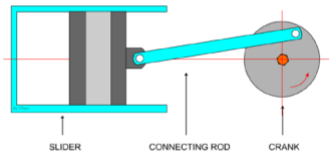


QUESTION 7a

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Name this linkage mechanism and describe how it works.

Tap the image for a potential answer



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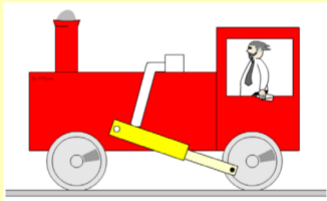


QUESTION 7b

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Describe a practical application of the linkage mechanism you named in the previous question.

Tap the image for a potential answer



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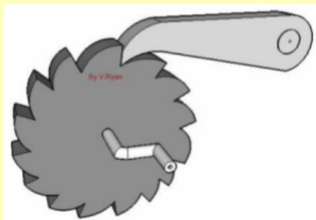


QUESTION 7c

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Name and describe the operation of this type of mechanism.
(Include a labelled sketch)

Tap the image for a potential answer



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QUESTION 8

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**Using notes and a sketch - how does a crank shaft work?
Include a practical application.**

Tap the image for a potential answer



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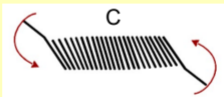
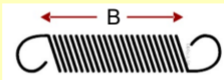
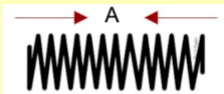


QUESTION 9

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Name the three types of spring shown below.

Tap the images for a potential answer



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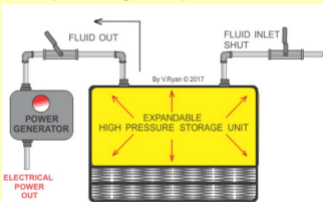
QUESTION 10

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Describe a practical application for each of the springs you named in the previous question.

(You may need to search the internet)

Tap the image for a potential answer



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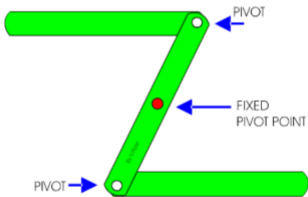
QUESTION 11

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**Name the linkage below.
Describe a practical
application.**

(You may need to search the
internet)

Tap the image for a potential answer



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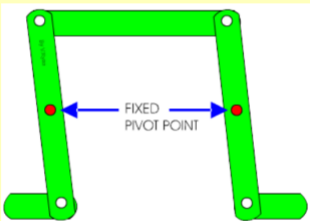


QUESTION 12

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This is a Parallel Motion Linkage.
With notes and a sketch,
describe a practical application.

Tap the image for a potential answer



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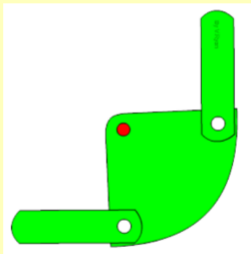


QUESTION 13

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This is a Bell Crank linkage.
With notes and a sketch,
describe a practical application.

Tap the image for a potential answer



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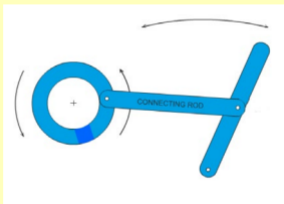


QUESTION 14

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This is a Treadle Mechanism
Draw the diagram and then add the missing information. (Label the parts, input motion and output motion)

Tap the image for a potential answer



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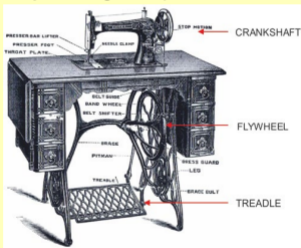
QUESTION 15

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A Victorian application of a treadle mechanism is shown below.

Sketch and describe ONE modern day practical application of this type of mechanism.

Tap the image for a potential answer



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