

SCRIPT BOOK

Time: 45 minutes:

Module III : P R O J E C T E D A I D S

Unit 4 : Slide projector

1. Slide projectors
2. You have completed so far the units on filmstrips, principles of projection and kinds of projected aids in this module. Now you will learn about slide projectors.
3. Some basic aspect has already been covered in previous units. Now REFER YOUR WORKBOOK and go through the objectives. You can operate a slide projector when you complete this unit. Take 2 minutes.
4. Slide projectors today use the most common form of 2 x 2 inch slides.
5. Most projectors now available are with single or double slide carrier. Projectors have multiple slide carriers too.
6. The basic slide projector is the same as the filmstrip projector.
7. REFER YOUR WORKBOOK and mark in the picture under question 1, the parts. STOP FOR A MINUTE & RESTART PRESENTATION.
8. For your convenience, the picture is shown again. Write against the names, alphabets denoting the parts.

- * 9. Here is the answer. On the last page we have provided you the sketch. Parts are marked. You may use it for future reference, if necessary.
- 10. The projection lamp provides the Light source, Reflector and condenser lenses direct light to the projection material.
The projection lens produces the focussed image on the screen.
- 11. The single or double slide carrier may be permanently installed or inserted in the carrier slot when it is to be used.
- 12. Multiple slide carriers provide convenient storage facilities, as well as for projecting the slides. Rectangular carriers vary in capacity from 30 to 50 normally. Circular or rotary trays vary in design, you can mount vertically or horizontally these trays on the projector. They carry 80 to 100 slides.
- 13. Slots are numbered for easy location of slides.
- 14. You must establish and maintain a filing system. Then you can look through your collection and make selection for use.
- 15. Here is a simple sketch of a slide projector.
- 16. Focus adjustment may be made by turning the projection lens, focussing knob or remote control focus button.

17. Note the focussing lens, remote control, fan/lamp switch, heat filter, aperture and slide gate.
18. You have the elevator knob, and levelling foot.
19. A tray release button unlocks the tray for removal or to change its position for showing slides out of sequence. The remote control has also a slide change control.
20. REFER YOUR WORKBOOK and answer question No. 2.
STOP FOR A MINUTE AND RESTART YOUR PRESENTATION.
21. Answer to question 2, is provided here.
22. Here is a Carousel Projector. Look for features that are known to you.
23. The controls for lamp, fan, slide changing, advance and reverse, are located on the rear side.
24. The remote control cord attached to the rear, can move tray clockwise or counter clockwise, change the slides, and adjust focus.
25. Carousel trays can hold 80-100 slides.
26. Kodak Carousel projectors can be synchronised with a cassette tape recorder.
27. The projector and tape recorder can function together automatically. You need not move each and every slide or adjust the tape-talk.

28. An inaudible pulse recorded on the tape, automatically changes the slides.
29. We can have a dissolver, and two projectors can work together, one picture fading away, while another picture from the second projector appears.
30. For independent study, automatic slide tape synchronisation is recommended.
31. The Kodak SAV 2000 projector that is available with us is shown here. Parts are marked.
32. REFER YOUR WORKBOOK, take question 3 now. Write against the names of parts given, the corresponding letters. STOP FOR TWO MINUTES AND THEN RESTART.
33. Here is your answer. If you have marked correctly, you have done well. If not you should refer to the figure given at the end of this unit, and study well the parts, as otherwise you will not be able to operate the projector.
34. Now answer questions 4 & 5 in your workbook. Take a minute. (STOP THE SYSTEM AND RESTART AFTER A MINUTE)

35. Answer to question 4 is Advance slides, Reverse slides and Focus control.
36. Answer to question 5:
 Single slide carrier ; double slide carrier, rectangular tray carrier and rotary tray carrier.
 Single or double slide carrier moves side ways, Rectangular carrier moves toward the front or rear and
 Rotary or circular tray moves clockwise or counterclockwise.
37. The advantages of rectangular and circular tray over the single or double frame carriers are
 (1) we can load the slides in advance and
 (2) use them even for storing slides.
 If we have programmed modules or units, we can permanently keep them loaded and use again.
38. In the case of a single or double slide carrier, we have to load the slides at the time of showing one at a time, and it takes a lot of class time.
39. Moreover, when we load the slide trays in the classroom, we may make mistakes in placing the slides. We have already learned how to place the slides. Let us review:
40. You mark on the left hand bottom of a slide, a dot. When you view slides and read what it contains, there should be a thumb mark usually a red or blue dot on left bottom. If it does not have, please make one. when you handle slides.

41. Now, face the screen, hold the slide so that you can read. Then insert the slide into the carrier or tray, so that the image is upside down. Remember, the dot will be now on the right top of the slide in loaded condition.
42. REFER YOUR WORKBOOK and answer question 6. STOP FOR A MINUTE AND RESTART THE PRESENTATION.
43. The thumb mark will be to the left bottom when you view the slide and read letters normally.
44. Handle slides by their mounts. Avoid touching or scratching the film surface.
45. Dusty slides may be cleaned with a soft brush or wiped with lens tissue or cotton.
46. Cotton dampened with water or film cleaner and applied carefully to avoid scratching will remove grease and other dirt from the film surface.
47. Slides are made in any one of the camera formats shown here.
48. You may use 35 mm camera for producing single or double frame slides.
49. All slide projectors have direct projection system. Therefore they produce inverted images. Hence, you must place the slides upside down to get an upright image. Always remember this.

50. In addition to the photographic slides, you have lantern slide $3\frac{1}{4}$ " x 4".
51. We have also polaroid slides. This can be used with overhead projectors also.
52. We can also use handmade slides. Cut out sections can be placed between clear glass for projection of shapes or silhouettes.
53. Etched glass or plastic slide with drawings in ordinary or coloured pencil, ink, or crayons can be made.
54. Cellophane slides for typed materials placed between clear glass can be used for projection.
55. Remember that all lines and lettering must be carefully made since the slide when projected, will be enlarged twenty to thirty times, and all defects will be greatly exaggerated.
56. REFER YOUR WORKBOOK and answer question 7.
(STOP FOR A MINUTE YOUR PRESENTATION AND RESTART)
57. The answer is:
1. Etched glass slides
 2. Lantern slides
 3. Cellophane slides
 4. Silhouette slides

58. SLIDE PROJECTOR OPERATION.
SETTING UP. Place projector on a stand, lens facing screen, at a distance suitable to the class.
59. Load slides in slide carrier.
60. Wind power cord to the leg and connect to socket.
DO NOT SWITCH ON NOW.
61. Connect the remote control cord if used. Insert the lens if it is stored in the projector case.
62. Instal the slide carrier or tray - Either rectangular or rotary.
63. Rotary trays require alignment of an index number on the tray. Follow manufacturers' instructions. For our Carousel projector, align with zero position.
64. Turn on fan/lamp switch. Project on the screen. Adjust elevation knob.
65. Adjust picture to fit the screen size by moving projector or by adjusting zoom lens, if you have one. Place the slide.
66. Focussing may be done, by turning the lens, or focussing knob or pressing focus button on the remote control until the image is clear.

67. OPERATION. You may use the single, double or multiple slide carrier with appropriate projector, based on your need.
68. For smooth presentation, stack slides in proper sequence in a slide box or tray, with the thumb spot on the right top.
69. Some carriers are loaded on the right, and unloaded on the left.
70. After showing, as you withdraw the slides, stack them neatly, in order of their number with the thumb spot on the right top facing you.
71. Be sure to remove the last slide from the projector, before switching OFF. Follow precautions you have followed for filmstrip projector.
72. IN MULTIPLE LOADING PROJECTORS, You have the rectangular or the circular loaded tray. If the slides are not loaded, load them in the desired sequence.
73. You may use forward, reverse or the remote controls. A preview session is always recommended.
74. Follow instructions given under the unit, projection principles.

75. PACKING UP. At the end, turn off projector lamp. Remove tray or carrier.
76. Level the projector by retracting the elevator knob. Retract the lens or remove it, and store.
77. Disconnect all control cords and store it.
78. You will operate a slide projector as a practical exercise. You may acquaint well with the projector. You have the sketch at the end. You may write the procedure for the operation. Submit this to your Training Officer before you do practical exercise 36.
79. REFER YOUR WORKBOOK and answer questions 8 and 9. STOP FOR 3 MINUTES AND RESTART.
80. You must be fully aware of the procedure for operating a slide projector. The answer to question 8 is on the screen. You may correct your answers if you have wrong answers.
81. Answer to question 9 is:
Film strip has a fixed sequence. Slide cannot be changed, as desired by the instructor.
82. After answering the unit test.
Take practical exercise No. 36.

END

AUDIO VISUAL EDUCATION

Module III

Projected Aids

Unit 4

Slide-Projector
-----Instructional Objectives:

1. Name parts of a common type of slide projector.
2. State the two important points to be considered while loading rotary trays on slide projector.
3. List the three facilities of remote control attachment.
4. Name the four types of slide carriers used.
5. Differentiate rectangular/Circular slide carriers and single/double slide carriers.
6. Relate position of thumb marks on the slides with reference to the position when it is placed in the projector.
7. Differentiate with reference to the position when it is placed in the projector.
8. Name the five types of slides available in addition to the normal photographic slides.
9. State the advantages of slides over filmstrips.
10. Enumerate in the order the sequence of setting up, loading and projecting slides using a slide projector which can take multiple slide trays.
11. Set up, load and operate correctly a slide projector, using slide trays and remote control.

Module III

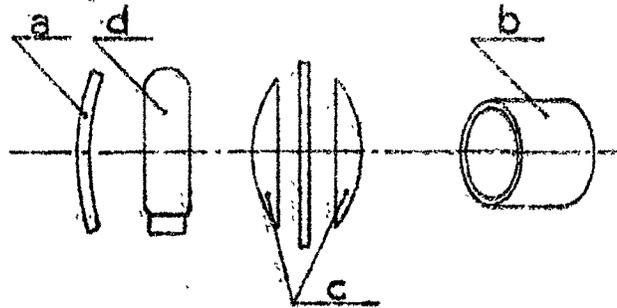
Projected slide

Unit 4

Slide and image projection

1. Mark the alphabets appropriate to the names of the parts of the slide projector marked in the picture against the names given.

- _____ 1. reflector
- _____ 2. projection lamp
- _____ 3. condenser lenses
- _____ 4. projection lens



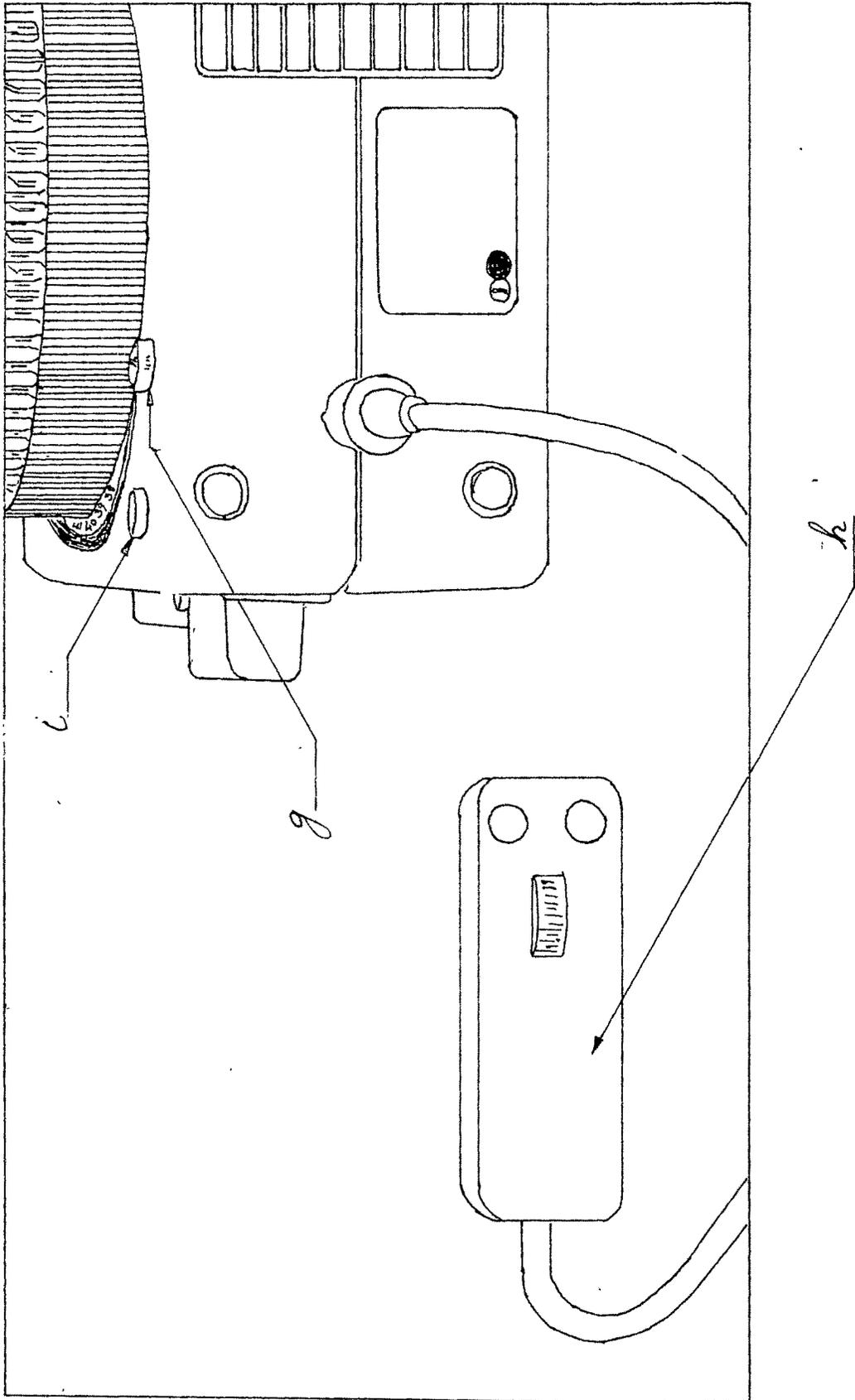
2. Write the functions of the following parts.

a. Projection lamp.

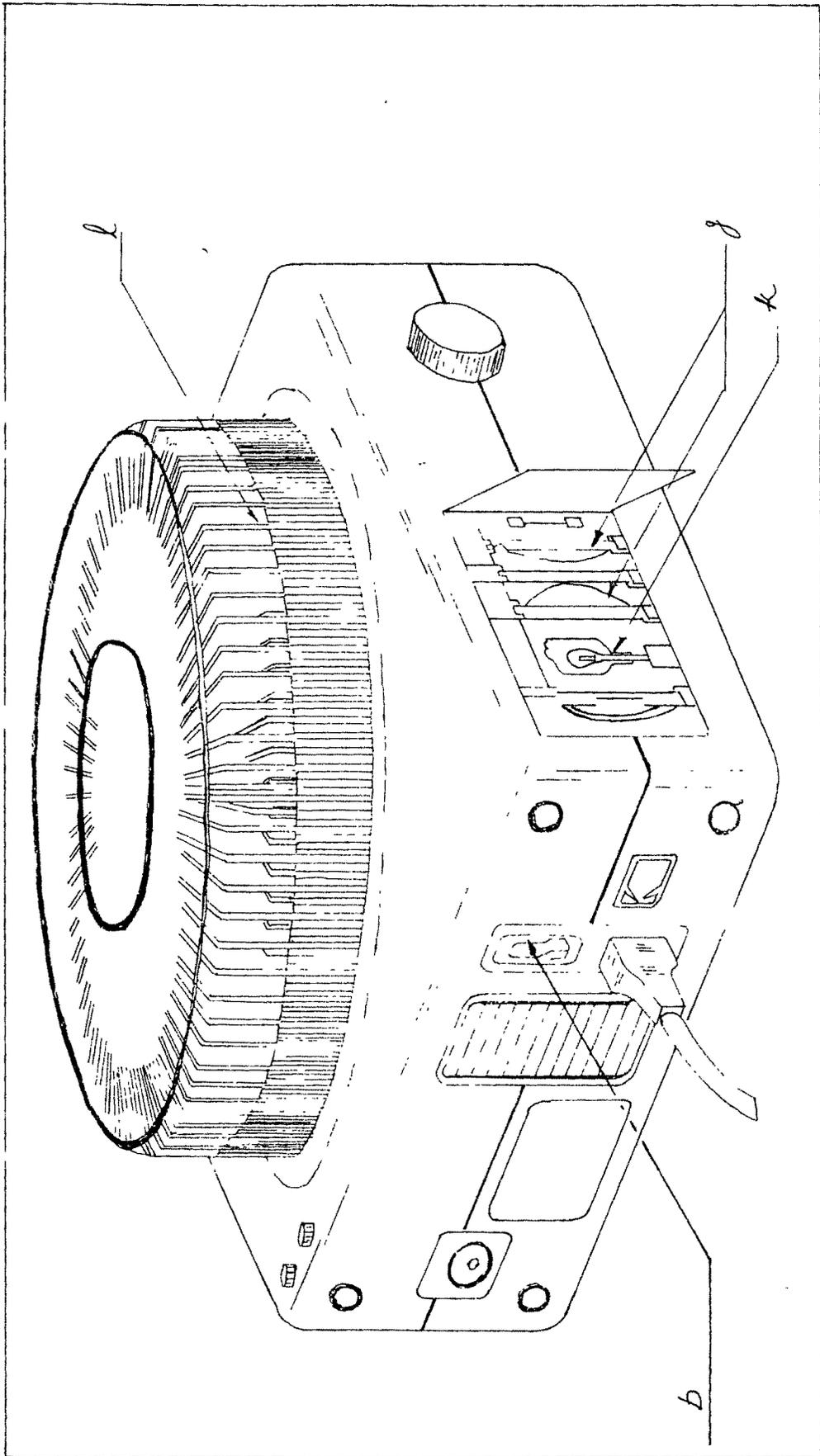
b. Reflector and condenser lenses;

c. projection lenses

KODAK CAROUSAL SLIDE PROJECTOR

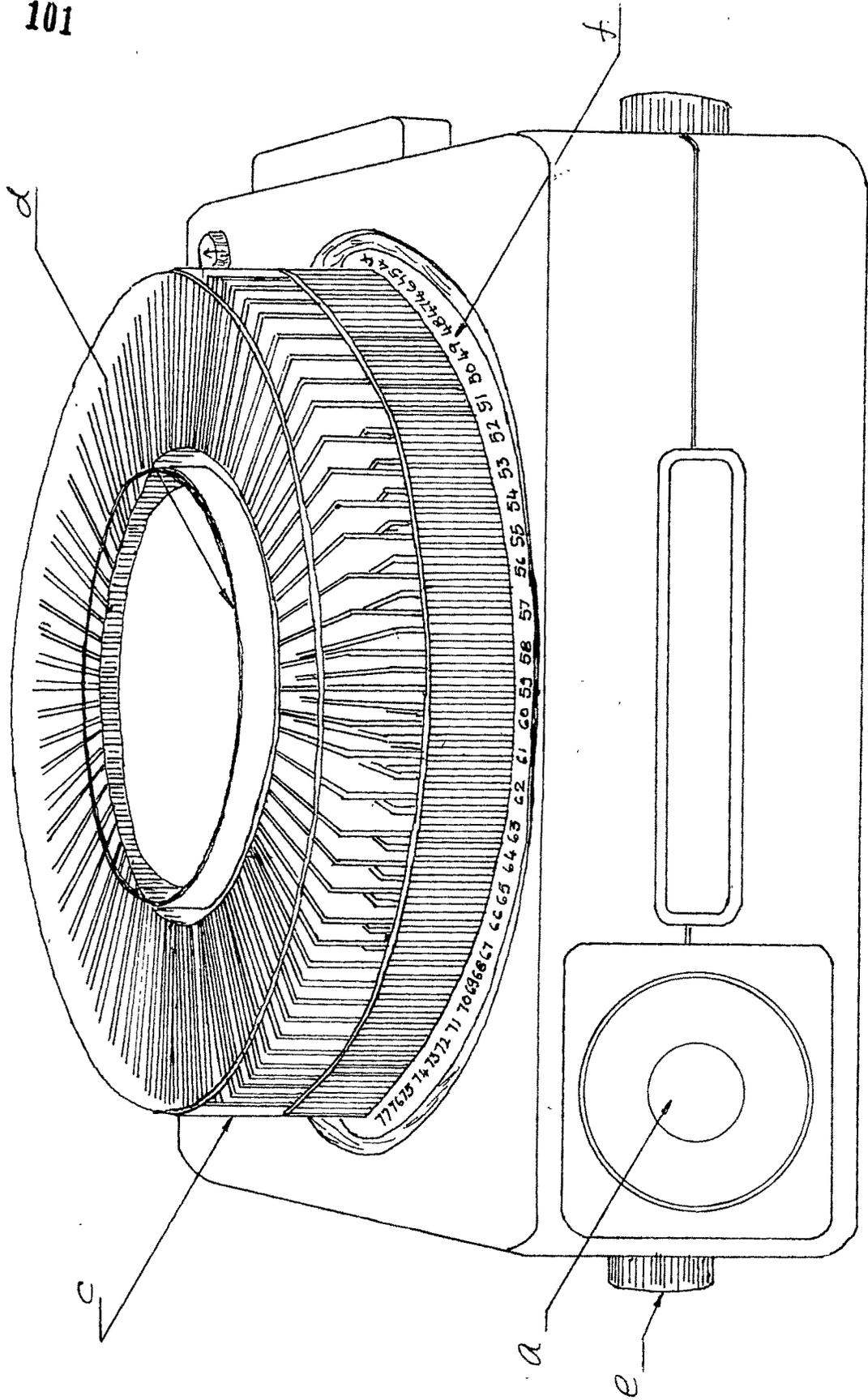


KODAK CAROUSAL SLIDE PROJECTOR



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KODAK CAROUSAL SLIDE PROJECTOR



3. Refer picture of Kodak Carousel on the last page and mark against each item given below the appropriate alphabet shown for the items in the figure.

- | | |
|--------------------------|--------------------------------|
| _____ 1. Lens | _____ 7. Forward change button |
| _____ 2. Elevator knob. | _____ 8. Reverse change button |
| _____ 3. Tray | _____ 9. Lamp |
| _____ 4. Retaining ring | _____ 10. Condenser lenses |
| _____ 5. Tray index | _____ 11. Slide gap |
| _____ 6. Lamp for switch | _____ 12. Remote control |

4. Write three facilities that are available with remote controls.

a.

b.

c.

5. Name four types of slide carriers that are commonly used.

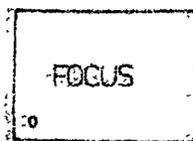
a.

b.

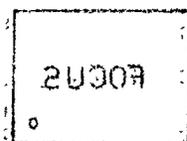
c.

d.

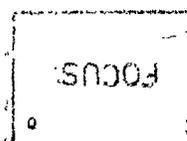
6. We have marked the thumb spot on four slides. Which one is the correct mark? a, b, c or d?



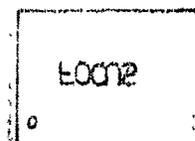
a



b



c



d

M 111/4-2/WB

7. Name four types of slides other than photographic slides.
- a.
 - b.
 - c.
 - d.
8. Number the items given below in the order of the operation, for operating the slide projector.
- _____ a. Place projector in position
 - _____ b. Connect the power cord
 - _____ c. Connect the remote control
 - _____ d. Install the slide carrier
 - _____ e. Load the slides in the slide carrier
 - _____ f. Center the light on screen
 - _____ g. Turn on lamp/fan switch
 - _____ h. Adjust image size
 - _____ i. Advance the slides
 - _____ j. Focuss
 - _____ k. Turn off lamp
 - _____ l. Remove slides
 - _____ m. Remove tray
 - _____ n. Level the machine
 - _____ o. Disconnect power and control cords.
 - _____ p. Store accessories.
9. What is the major advantage of slides over filmstrips.

AUDIO VISUAL EDUCATION

MODULE - III. Projected Aids. Time: 5 mts.

Unit - 4. Slide projector

Practical Exercise No. 36: Operating a slide projector

A. PROBLEM : Operate a 2x2 slide projector to show **15** slides.

- | | | |
|-----------------|-------------|-------------------------------------|
| a) Setting up | }
}
} | Plan as per performance check list. |
| b) Operation | | Total time allowed for final |
| c) Putting away | | presentation five minutes. |

B. EQUIPMENT & MATERIALS:

- a) Slide Projector
- b) Screen.
- c) 15slides

C. GRADING POINTS

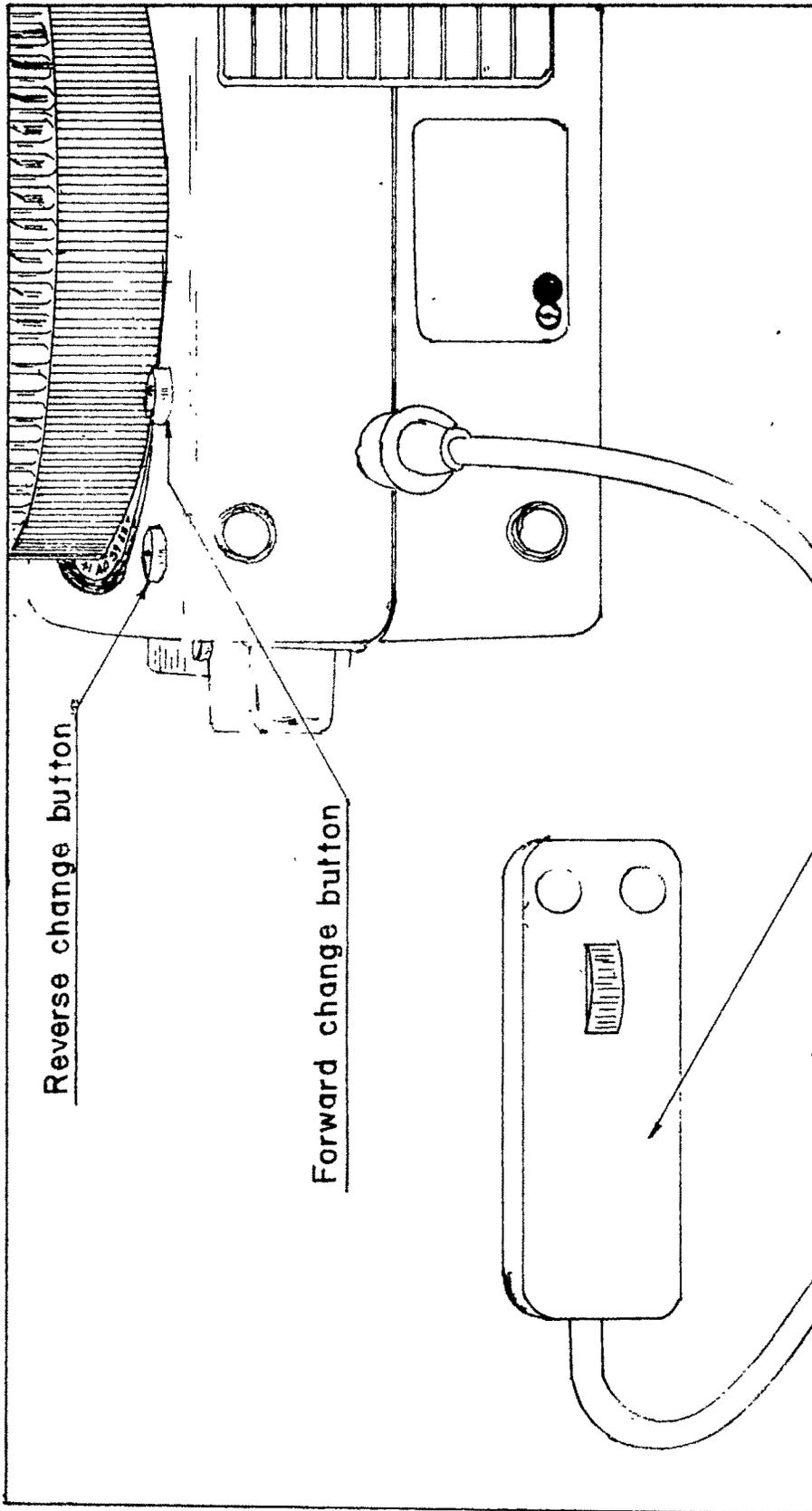
- a) Setting up
- b) Operation the projector
- c) Placing Slides correctly.
- d) Focussing each slide.
- e) Putting away.

Try each operation within a time limit of 60 seconds.
Up to three trials are allowed for practice.

D. Deadline for completion. June 1st

M III/4/Pr.Ex. 36/

KODAK CAROUSAL SLIDE PROJECTOR

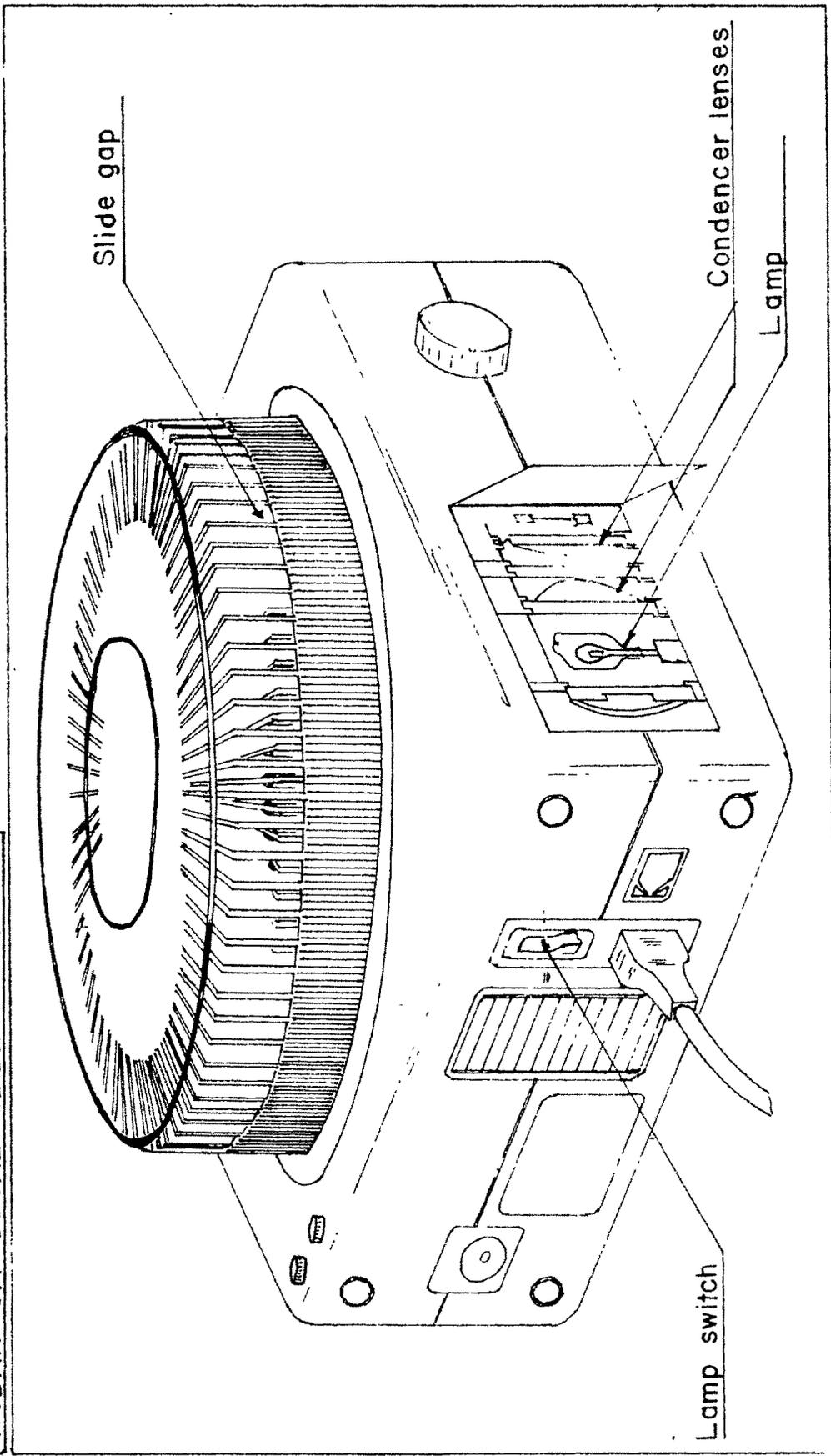


Reverse change button

Forward change button

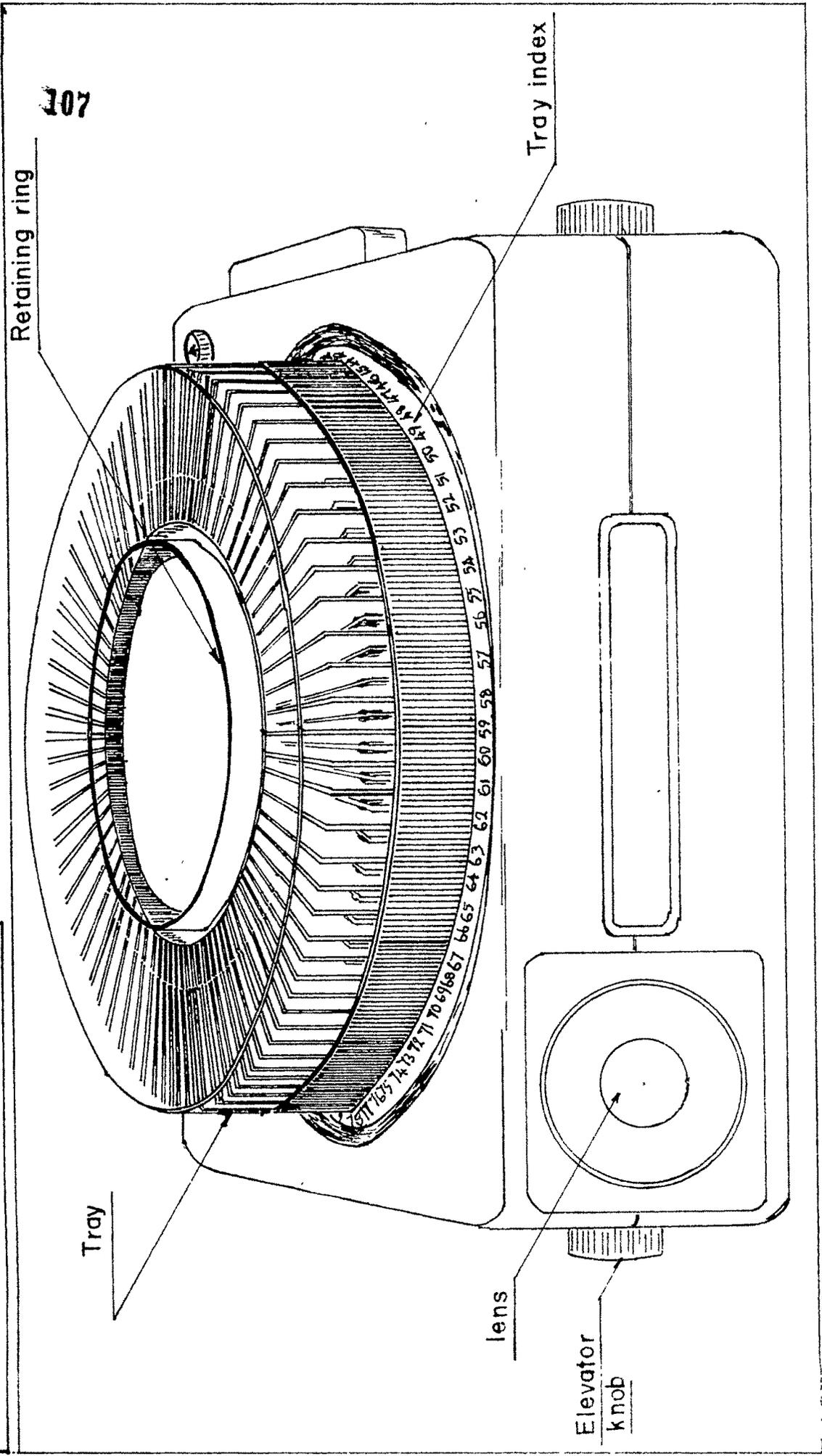
Remote control

KODAK CAROUSAL SLIDE PROJECTOR



KODAK CAROUSAL SLIDE PROJECTOR

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Retaining ring

Tray

Tray index

lens

Elevator knob

AUDIO VISUAL EDUCATION

MODULE - III. Projected Aids

Unit - 4. Slide Projector

Practical Exercise No.36: Performance Check List for
Operating a 2"x 2" Slide projector.

A. SETTING UP

- 1) Place projector & screen in position
- 2) Connect power cord
- 3) Connect remote cord
- 4) Load slide carrier with slides
- 5) Install slide carrier.
- 6) Turn on lamp
- 7) Center light on screen
- 8) Focus
- 9) Adjust image size to full screen

B. OPERATION

- 1) Advance slides
- 2) Refocuss
- 3) Skip one slide using remote control
- 4) Go back two slides using remote control
- 5) Show slide number 10.
- 6) Show "End" Slide.

C. PUTTING AWAY

- 1) Turn off lamp.
- 2) Remove tray, remove slides store
- 3) Level machine and retract lens.
- 4) Disconnect power & control cords.
- 5) Store accessories & projector

Module III	Projected Aids	36
Unit 4	Slide Projector	

The check list given under are not in a sequence. Put numbers 1,2,3against each step in the correct sequence, for A, B and C separately.

A. SETTING UP

- _____ a. Connect the power cord.
- _____ b. Load the slide carrier with slides.
- _____ c. Install the slide carrier.
- _____ d. Place the projector & screen in position.
- _____ e. Connect the remote control cord.
- _____ f. Centre the light on screen.
- _____ g. Adjust the image size to full screen.
- _____ h. Focus.
- _____ i. Turn on the lamp.

B. OPERATION

- _____ a. Refocuss if necessary with remote control.
- _____ b. Skip one slide, use remote control.
- _____ c. Advance slides, use remote control.
- _____ d. Show the End.
- _____ e. Skip back two slides
- _____ f. Show slide number 10.

C. PUTTING AWAY

- _____ a. Level the machine and retract the lens.
- _____ b. Disconnect the power & control cords.
- _____ c. Remove the tray, remove slides, store them.
- _____ d. Turn off the lamp.
- _____ e. Store the accessories & projector.

Module III	Projected Aids	Key to Pr. Ex.
Unit 4	Slide Projector	36

The check list given under are not in a sequence. Put numbers 1,2,3..... against each step in the correct sequence, for A, B and C separately.

A. SETTING UP

- 2 a. Connect the power cord.
- 4 b. Load the slide carrier with slides.
- 5 c. Install the slide carrier.
- 1 d. Place the projector & Screen in position.
- 3 e. Connect the remote control cord.
- 7 f. Centre the light on screen.
- 9 g. Adjust the image size to full screen.
- 8 h. Focus.
- 6 i. Turn on the lamp.

B. OPERATION

- 2 a. Refocuss if necessary with remote control.
- 3 b. Skip one slide, use remote control.
- 1 c. Advance slides, use remote control.
- 6 d. Show the End.
- 4 e. Skip back two slides.
- 5 f. Show slide number 10.

C. PUTTING AWAY

- 3 a. Level the machine and retract the lens.
- 4 b. Disconnect the power & control cords.
- 2 c. Remove the tray, remove slides, store them.
- 1 d. Turn off the lamp.
- 5 e. Store the accessories & projector.

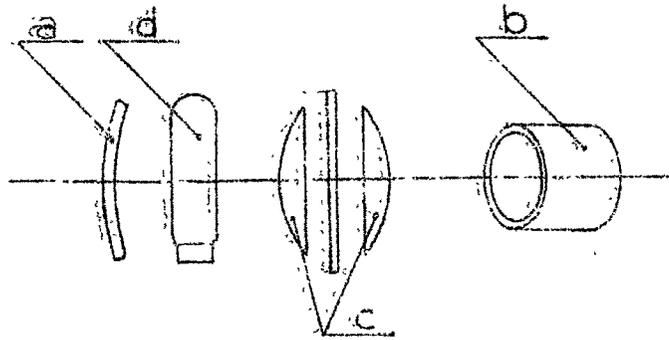
AUDIO VISUAL EDUCATION

CRITERION TEST

Module III. Projected Aids
 Unit 4 Slide and slide projector

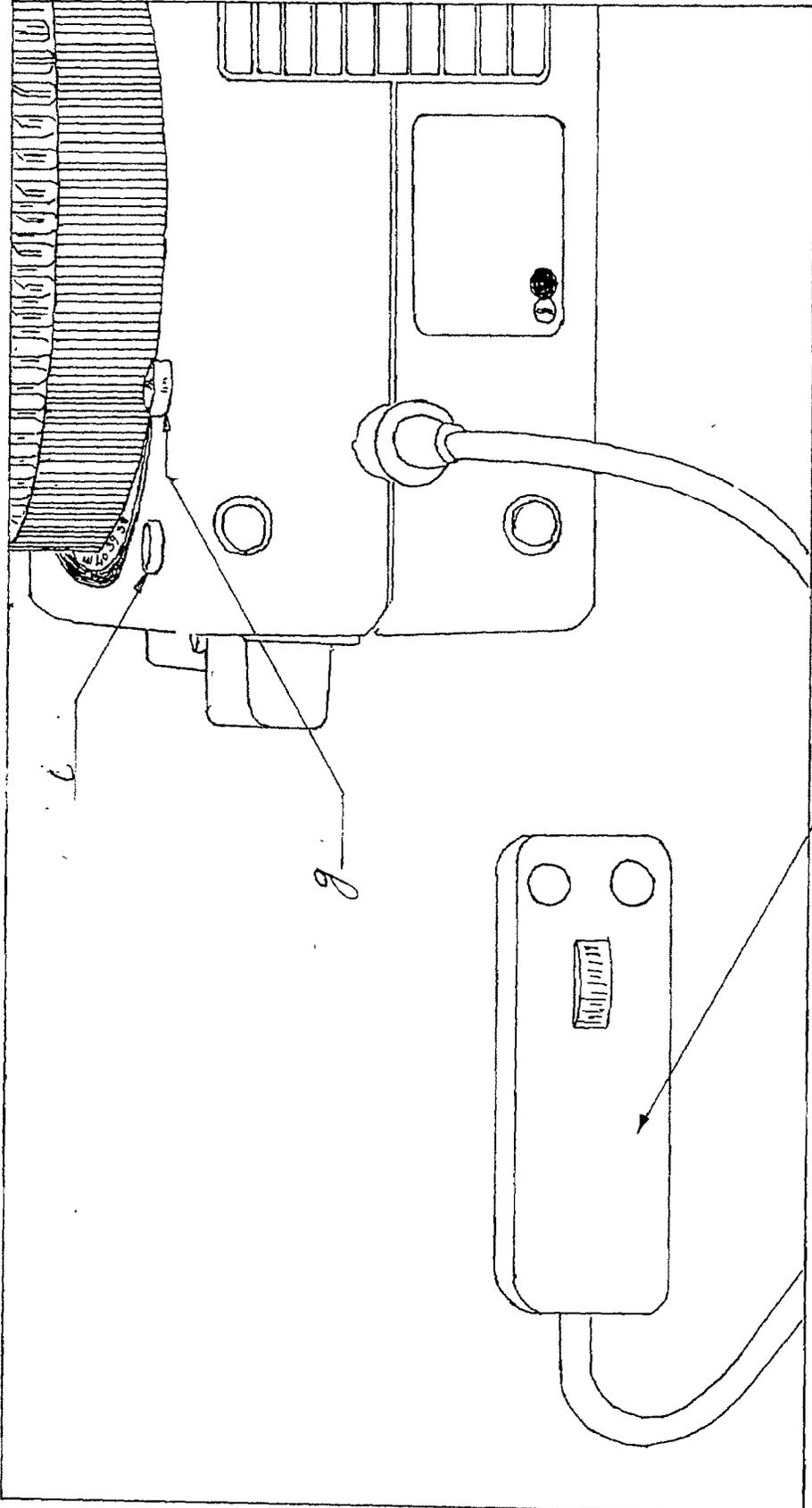
1. Mark the alphabets appropriate to the names of the parts of the slide projector marked in the picture against the names given.

- _____ 1. Reflector
- _____ 2. Projection lamp
- _____ 3. Condenser lenses
- _____ 4. Projection lens.

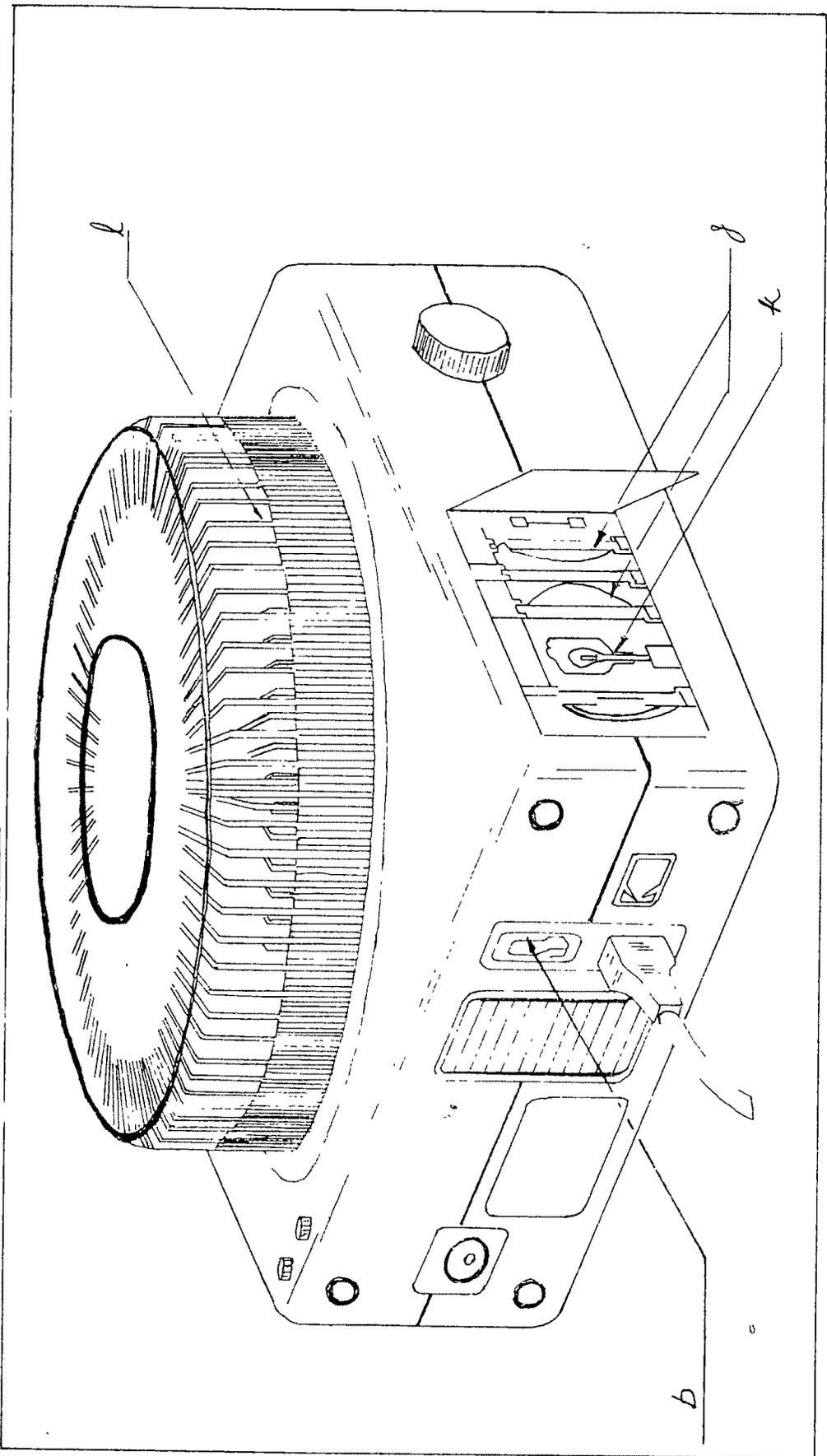


2. Write the functions of the following parts.
- a. Projection lamp
 - b. Reflector and condenser lenses
 - c. Projection lenses

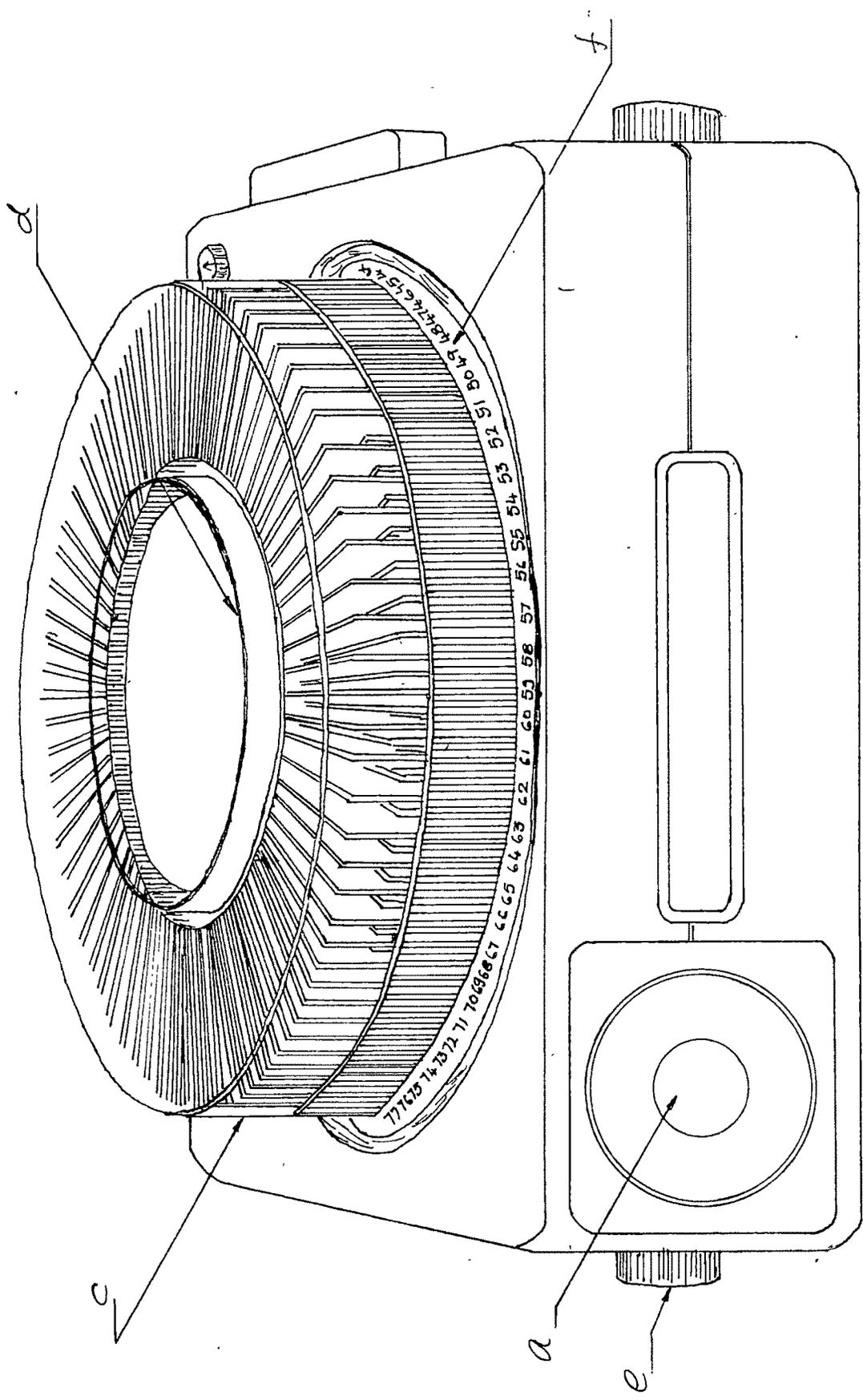
KODAK CAROUSAL SLIDE PROJECTOR



KODAK CAROUSAL SLIDE PROJECTOR



KODAK CAROUSAL SLIDE PROJECTOR



3. Refer picture of Kodak Carousel on the last page and mark against each item given below the appropriate alphabet shown for the items in the figure.

- | | |
|--------------------------|--------------------------------|
| _____ 1. Lens | _____ 7. Forward change button |
| _____ 2. Elevator knob. | _____ 8. Reverse change button |
| _____ 3. Tray | _____ 9. Lamp |
| _____ 4. Retaining ring | _____ 10. Condenser lenses |
| _____ 5. Tray index | _____ 11. Slide gap |
| _____ 6. Lamp for switch | _____ 12. Remote control |

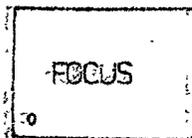
4. Write three facilities that are available with remote controls.

- a.
- b.
- c.

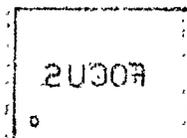
5. Name four types of slide carriers that are commonly used.

- a.
- b.
- c.
- d.

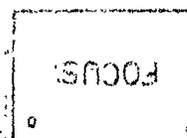
6. We have marked the thumbspot on four slides. Which one is the correct mark ? a, b, c or d ?



a



b



c



d

M III/4-2/CT

7. Name four types of slides other than photographic slides.

a.

b.

c.

d.

8. Number the items given below in the order of the operation, for operating the slide projector.

- _____ a. Place projector in position.
- _____ b. Connect the power cord.
- _____ c. Connect the remote control.
- _____ d. Install the slide carrier
- _____ e. Load the slides in the slide carrier
- _____ f. Center the light on screen
- _____ g. Turn on lamp/fan switch
- _____ h. Adjust image size
- _____ i. Advance the slides.
- _____ j. Focus.
- _____ k. Turn off lamp
- _____ l. Remove slides
- _____ m. Remove tray
- _____ n. Level the machine
- _____ o. Disconnect the power and control cords.
- _____ p. Store the accessories.

9. What is the major advantage of slides over filmstrips?

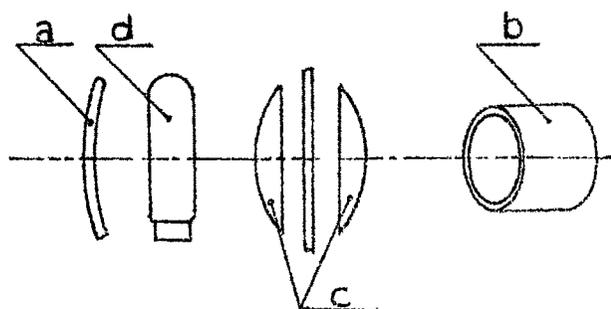
AUDIO VISUAL EDUCATION

KEY TO
CRITERION TEST

Module III	Projected Aids
Unit 4	Slide and Slide Projection

1. Mark the alphabets appropriate to the name of the parts of the slide projector marked in the picture against the names given.

- a 1. Reflector
d 2. Projection lamp
c 3. Condenser lenses
b 4. Projection lens.



2. Write the functions of the following parts.
- Projection lamp provides a light source.
 - Reflector and condenser lenses direct light to the projection material.
 - Projection lenses produce focussed image on screen.

3. Refer pictures of Kodak Carousel on the last page and mark against each item given below the appropriate alphabet shown for the items in the figure.

<u>a</u>	1. Lens	<u>g</u>	7. Forward change button
<u>e</u>	2. Elevator knob	<u>i</u>	8. Reverse change button
<u>c</u>	3. Tray	<u>j</u>	9. Tray
<u>d</u>	4. Retaining ring	<u>k</u>	10. Slide carrier
<u>f</u>	5. Tray index	<u>l</u>	11. Slide bar
<u>b</u>	6. Lamp for switch	<u>h</u>	12. Remote control

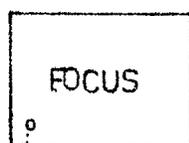
4. Write three facilities that are available with remote controls.

- Advance slides
- Reverse slides
- Focus control

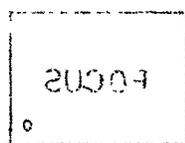
5. Name four types of slide carriers that are commonly used.

- Single slide carrier
- Double slide carrier
- Rectangular tray carrier
- Rotary tray carrier

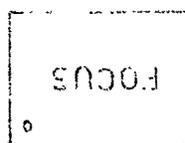
6. We have marked the thumbspot on four slides. Which one is the correct mark? a, b, c or d?



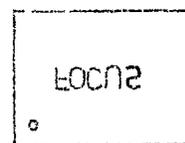
a ✓



b



c



d

7. Name four types of slides other than photographic slides.

- Etched glass slides
- Lantern slides
- Cellophane slides
- Coloured slides (silhouette slides)

M III/4-2/KCT

8. Number the items given below in the order of the operation, for operating the slide projector.

- 1 a. Place projector in position
- 2 b. Connect the power cord
- 3 c. Connect the remote control
- 5 d. Instal the slide carrier
- 4 e. Load the slides in the slide carrier
- 7 f. Center the light on screen
- 6 g. Turn on lamp/fan switch
- 8 h. Adjust image size
- 10 i. Advance the slides
- 9 j. Focuss
- 11 k. Turn off lamp
- 13 l. Remove slides
- 12 m. Remove tray
- 14 n. Level the machine
- 15 o. Disconnect power and control cords.
- 16 p. Store accessories

9. What is the major advantage of slides over filmstrips ?

The film strip has a fixed sequence, where as the slides are individual pieces and hence this sequence can be changed, as desired by the instructor.

M III/4-3/KCT