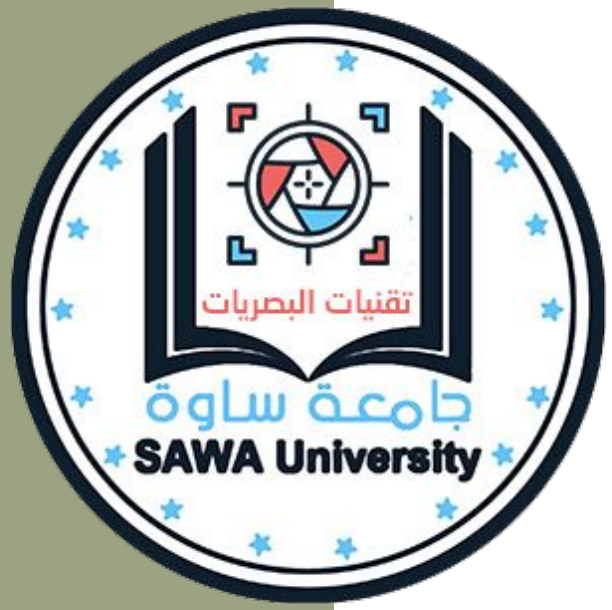
SAWA UNIVERSITY

الورشة



جامعة ساوة

كلية التقنيات الصحية والطبية

قسم تقنيات البصريات

المرحلة الرابعة

اسم المحاضر أ. حسين كاطع

رقم المحاضر 3

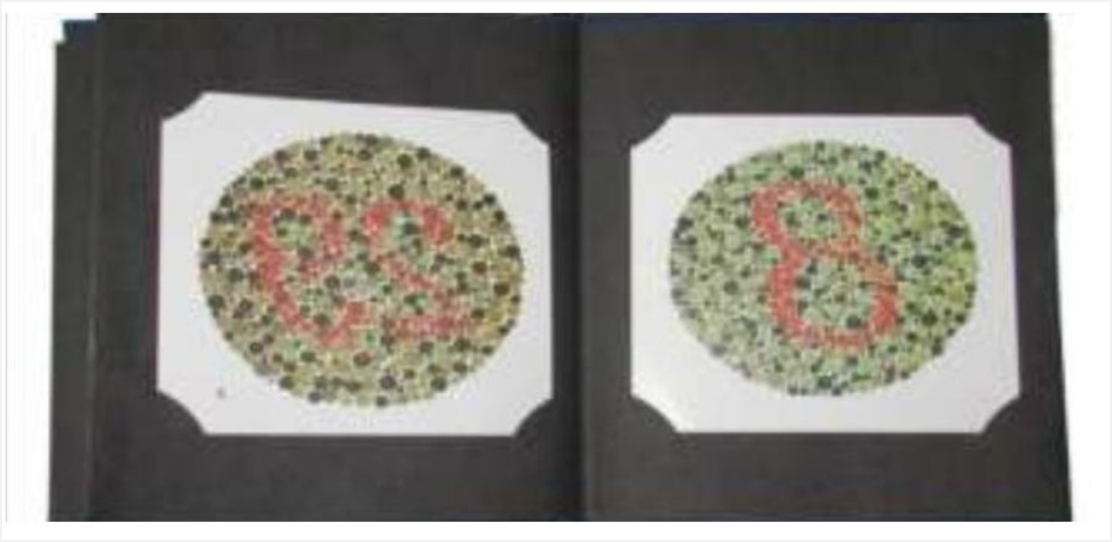
COLOR TEST (Ishihara test)

- To identify any discrepancy in the ability to recognize color - To screen for acquired or hereditary color vision defects. - These clinical screening tests are particularly significant for the assessment of macular cone and optic nerve function.

Color tests:

o Ishihara test.
o HRR test.
o City university test.
o Randy deficiency color (for blue and yellow test) Some test used with children:
o Matsubara test "pictures for child"
o Guy's color test " use upper case let

Ishihara test



Ishihara plate:

-each plate made up of irregular colored dots, which conceal a hidden figure - The figure can easily be seen by color normal, but not by the color deficient.

Figure design:

ý **Transformation design: (plate NO. 2-5)**

-Normal people see a number, color defect see another number.

ý **Vanishing design: (plate NO. 6-8)**

-Figure that can be seen by normal people but cannot be seen by the color deficient.

ý **Hidden digit design: (plate NO. 9)**

-Normal people cannot see the number, color defect can see it.

ý **Classification design: (plate NO. 12-14)**

-To distinguish between red and green deficient vision. Normal can see 2 numbers; red defect can see one number- green defect see the other number.

Set up:

¨ Let patient wear his correction ¨ Use good illumination.

procedure:

1- Test both eye then each eye separately.

2- Put Ishihara plate at 75cm from the patient.

3- Instruct patient to read the number he see it inside the circle.

4- Each plate shown for patient for 4 seconds only even can't read it. Don't get patient more time to concentrate.

5- Let patient read all plates and compare the number reading by patient with the table you have to diagnose your patient:

Number plate	Normal person	Person with red-green deficiencies				total color blindness and weakness
1	12	12				12
2	8	3				X
3	5	2				X
4	29	70				X
5	74	21				X
6	7	X				X
7	45	X				X
8	2	X				X
9	X	2				X
10	16	X				X
11	Traceable	X				X
		Protan		Deutan		
		Strong	Mild	Strong	mild	
12	35	5	(3) 5	3	3 (5)	
13	96	6	(9) 6	9	9 (6)	
14	Can trace two line	Purple	Purple (red)	Red	Red (purple)	X

Result:

- As assessment of the reading of plates 1-11 determines the normality or defectiveness of color.
- If 10 or more plates are read normally, the color vision is regarded
as normal
- If only 7 or less than 7 plates are read normal, the color vision is
regarded as deficient.

Record:

ý Normal.
ý Red color defect.
ý Color blindness.