IQRA NATIONAL UNIVESITY

PESHAWAR

ID   13698

NAME   SHARIQ

SUBMITED TO   MAM SANA JEHAN

Q1:

a. What will be the size of a coloured picture having resolution 1600 x 1200 and colour dept of 8 bits?

Ans :-

Given data:

Resolution   1600 X 1200

Color dept   8 bits   (256) colors

Required :

Size of coloured picture ?

Solution:

$1600 \times 1200 = 1920000 \Rightarrow 1.9 Mb$

color dept   8 bit   256 colors.

So

$1920,000 \times 8$ bits

$= 15360,000$ bit $= 1920000$ bytes

Result:

1.92 Mb

b. If the same image is converted to gray scale image what will be the side if we keep the same color depth?

Ans:- Solution:

Red = 1
Green = 1
blue = 1

= 1600×1200 = 1920,000

= $\frac{1920,000}{3}$

= 640000

Result:-

0.64Mb

© True color system has 24-bit color dept
Why is it not a good idea to increase color
depth beyond that?

Ans:-
Increasing the color depth will only
increase the size of image there is
no link to the col quality.

Color depth for different bits.

8 bits	1.92 Mb
16 bits	3.84 Mb
24 bits	5.76 Mb.

Question # 2

(a) Find value of P, where P = average of N&P

$$93 + 95 + 93 + 86 + 84 + 88 + 89 + 93 = 726$$

$$726 \div 8 = 90.75$$

average of N&P = 90.75

$$P = 90$$

(b) Find value of Q where Q = Average of N&P.

$$81 + 79 + 80 + 7 + 69 = 316$$

$$316 \div 5 = 63.2$$

average of N&Q = 63.2

$$Q = 63$$

(C) Do you think - - - - - -

Explain your answer.

No, because the value of P Pixel can

be anything from 0-255

but the calculated value can be

closest to the orignal one.

Q3:- Consider the spatial resolutions

a) QR scan :-

QR scanner should be small because it is daily used option. The size should be small because normal scanner should also need to scan it.

The resolution should be between

32×32 or 72×72.

(b) For Finding the dominant color of an image we use image representation, because the histogram of an image shows us the distribution of grey levels in the image

The high contrast image has the most histogram show us dominant colo

© Finding number of faces in picture.

For quality picture we use spatial resolution.

Because higher resolution will give us high quality picture and from high resolution picture we will be able to find faces in picture.

High resolution $\propto$ More focus.