Duration: 3 hrs.                                                    Marks: 80

N.B.

- Question No.1 Compulsory.
- Answer any three from the remaining.
- Figures to the right indicate full marks
- Give illustrations and examples wherever necessary

1  a) From the data below find the Dot area, thereby Dot gain and Print contrast. Draw the Print characteristic curve. Take Milton-pearson factor to be 1.7                    (10)

| Tone Value | Density |
|------------|---------|
| 10 | 0.2 |
| 20 | 0.3 |
| 30 | 0.5 |
| 40 | 0.63 |
| 50 | 0.7 |
| 60 | 0.85 |
| 70 | 1 |
| 80 | 1.1 |
| 90 | 1.25 |
| 100 | 1.4 |
| | |

   b) Explain Density, Color Difference, Hue error and Contrast with formulae.      (10)

2  a) Explain the physiology of Human eye and how it works in colour perception.   (10)
   b) Explain Hue, Saturation and Value                                             (5)
   c) Explain Opponent Process theory of colour vision                             (5)

3  a) Explain Jones diagram. Compare it with the print characteristic curve.       (10)
   b) Explain UCR, GCR and UCA with neat diagrams.                                 (10)

5  a) Explain gamut mapping algorithms with neat diagrams.                          (10)
   b) Explain CCD sensors with their applications.                                  (5)
   c) Compare Tiff and Jpeg. Enlist their Pros and Cons                             (5)

6  a) How to make printer profile for Package printing? Explain in detail.          (10)
   b) Briefly explain 4Cs and Monitor Profiling process.                           (10)

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