15/1/2019

14.00 - 15.30pm

National Stadium, Irish Athletic Boxing Centre

DUBLIN INSTITUTE OF TECHNOLOGY

DT228A/1 MSc. in Computing
DT228B/1 MSc. in Computing
DT228B/2 MSc. in Computing
DT265A/2 Higher Diploma in Computing
DT8900/1 International Pre Masters for MSc in Computing

WINTER EXAMINATIONS 2018/2019

DATA VISUALISATION [SPEC9995]

DR. MARISA LLORENS SALVADOR
DR. DEIRDRE LILLIS
DR. BARRY HAYCOCK – DT228A/B
MR. JOHN PUGH – DT2265A

TUESDAY 15TH JANUARY 2.00 P.M. – 3.30 P.M.

ONE HOUR AND THIRTY MINUTES

ANSWER ALL OF THE FOLLOWING QUESTIONS

1. **(a)** List two of the main classifications of *visualisation*. Give a description of each.

(20 marks)

(b) Describe the stages of Ben Fry's *process of visualisation*.

(15 marks)

(c) For each of the following plot types, describe **one** situation where each plot would be appropriate over the others.

(i) Histogram
(ii) Bar chart
(iii) Pie Chart

(15 marks)

2. **(a)** *Map projections* are used to visualise geospatial data. Describe and compare **two** different projection systems.

(15 marks)

(b) In relation to encoding, what are "*distinct values*" and how should they be used? Provide examples to support your answer.

(20 marks)

(c) List the most appropriate charts to visualise patterns over time with the following data:

(i) Discrete points in time

(ii) Continuous points in time

(iii) Multiple dimensions

Use examples to illustrate your selection.

(15 marks)