NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF INDUSTRIAL TECHNOLOGY

DEPARTMENT OF TECHNICAL TEACHER EDUCATION

Programme: BACHELOR OF EDUCATION HONOURS DEGREE

MAIN EXAMINATION : THEORY

Course: Applying Educational Technology	**TTE1213**
Part: I	**MAY 2011**
Time: 3 hours	**100 marks**

Lecturer: N Phuthi

QUESTION 1

Fig. Q1 shows the phenomenon that the value of audio-visual media in teaching and learning is a function of their degree of realism.

Words

Diagrams

Maps

Flat pictures

Slides

Stereographs

Films

Models

Objects (Realia)

Total situation

abstractness

concreteness

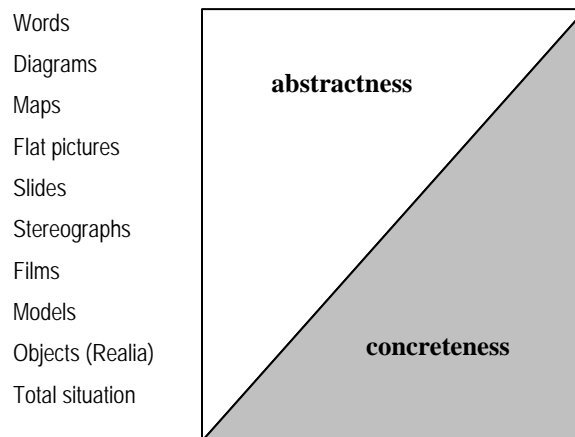**Fig. Q1 : The hierarchy of media on a scale of realism**

(a) Define the terms: realism, abstractness and concreteness.   [6]
(b) Select **three** of the media shown in the diagram and explain why they are in the position in
     which they are in terms of realism.   [15]
(c) Explain how audio-visual aids improve or expedite the learning process.   [4]

QUESTION 2
Discuss the ASSURE model for planning and using instructional media.   [25]

QUESTION 3
Read the passage below and answer the questions that follow:

> **Perhaps the most important single technological trend affecting the use of instructional media has been the movement toward miniaturisation of mediaware formats and equipment. This trend has led to lower cost, increased ease of operation and portability of equipment, and hence to increased access to and use of instructional media in the formal and nonformal learning situation.**

  (a) Briefly explain any **three** technological advances in the electrical and electronic fields
      that have made use of miniaturisation.   [12]
  (b) With reference to computer hardware, cite examples of miniaturisation and how this has
      improved portability of instruction.   [13]

QUESTION 4
  (a) What is visual literacy?   [3]
  (b) Discuss the role of **print** and why it remains crucial to learning and communication even
      in the face of advancing technology and computerisation.   [15]
  (c) Discuss the importance of **display** in the learning process.   [7]

QUESTION 5
  (a) What are the strengths and weaknesses of using computers as teaching and learning aids
      for large groups of students?   [12]
  (b) How have computers changed the processes of producing printed materials for teaching
      and student assessment?   [13]

QUESTION 6
Create a systematic ten-slide PowerPoint presentation on a topic of your choice.   [25]

E N D   O F   E X A M I N A T I O N   P A P E R