

OBAFEMI AWOLOWO UNIVERSITY, ILE-IFE

FACULTY OF EDUCATION

DEPARTMENT OF SPECIAL EDUCATION AND CURRICULUM STUDIES

M.A.ED./M.ED. DEGREE EXAMINATION

2010/2011 RAIN SEMESTER EXAMINATION. APRIL, 2012

SEC 614: CURRICULUM BUILDING IN SCIENCE EDUCATION

INSTRUCTION: Answer all questions

TIME ALLOWED: 3 hours .

1. "Because of the complexity of higher abstractions, and because of the desirability of establishing much higher generalizations, scientists are forced to devise models of nature, simplifications achieved by eliminating irrelevant detail, from which higher abstraction can be more easily derived. The model is intended to incorporate in workable form the essential features of the natural system under examination"
 - (a) Explain the following terms to an SSII student in your class who brought the above write-up to you.
 - (i) Hypotheses and theories
 - (ii) Scientific models
 - (b) How can you convince the students in your class that
 - (i) air has weight
 - (ii) pressure acts upwards
 - (iii) Pressure acts downwards
 - (iv) pressure acts on all sides
2. The best education is one that learners create **from** their own direct efforts. Hence science/mathematics teachers should resist the urge to always tell students what to do and how to do it. This is why the teacher must take all necessary steps to prepare his/her lessons since it takes more insight to think and lead than to tell.

How can the above be achieved by the teacher who is expected to carry out his/her instructional processes in laboratory settings?
3. (a) What are the characteristics of a good resource material for science teaching?
 - (b) Explain into some diagrammatic details, the different categories of resources that can be employed in laboratory teaching of science.
 - (c) How can field trips be used to motivate students to want to learn science?
4. Analyse the contributions of **one** of the following theories to science curriculum and the implications of such theory to instructional processes in the classroom.

- (a) E.C. Tolman
- (b) Albert Bandura
- (c) David Ausubel
- (d) Jerome Bruner
- (e) Rohert Gagne
- (f) D.E. Hunt

RESERVED