



THE OPEN UNIVERSITY OF SRI LANKA

FACULTY OF EDUCATION

CERTIFICATE IN PRE-SCHOOL EDUCATION PROGRAMME - 2017/2018

FINAL EXAMINATION

ESC1136/EPC1336 – DEVELOPMENT OF MATHEMATICAL SKILLS

DURATION – TWO (02) HOURS

Date: 14th June 2019

Time: 10.00 a.m. – 12.00 noon

Answer All Questions in Part I and any three (03) questions from Part II.

PART - I

01. State five (05) individual differences that affect learning.
02. Tabulate Jean Piagets' stages of development with relevant age ranges.
03. Explain with illustrations what is meant by 'One to One Correspondence'?
04. List out the responsibilities of a pre-school teacher with relation to development of mathematical concepts.
05. What do you mean by the concept of neighbourhood.
06. Briefly explain how you would introduce the concept "symmetry" to pre-school children.
07. "Practical knowledge of liquid conservation is very important for children to understand this concept."
Write an example that would help children to develop this concept.
08. What do you mean by the concept of 'Measurement.'

(5 x 8 = 40 marks)

PART - II

09. i. Explain citing examples, how children develop the concept of shapes in their home environment. (05 marks)
- ii. Write an activity with materials and procedure that provides experiences of the concept of shapes pre-school children. (15 marks)
10. i. Differentiate the following terms with illustrations (a) Number name (b) Number symbol (c) Number value. (06 marks)
- ii. Discuss an activity to introduce the number concept to pre-school children. (14 marks)
11. i. What do you mean by the term "Conservation/Invariance" (03 marks)
- ii. List out **three (03)** types of invariances you can introduce to the pre-school children. (03 marks)
- iii. Write one activity for any **two (02)** types with relevant illustrations. (14 marks)
12. i. Define the term 'sorting' in your own words. (03 marks)
- ii. List out **four (04)** types of sorting you can introduce to pre-school children. (04 marks)
- iii. Select any **two (02)** types of sorting from the list you made and describe each with activity. (13 marks)
13. i. What do you mean by the term "relationship". (03 marks)
- ii. List out **four (04)** types of relationships which can be introducing for pre-school children. (04 marks)
- iii. Select any **two (02)** types of relationships and write an activity for each type. (13 marks)

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