UNIVERSITY OF COLOMBO, SRI LANKA
Faculty of Education

Bachelor of Education (Part 111)
First Semester Examination 2015

EMA 405 – Educational Measurement and Assessment
Part II

Time – 2 hours 30 minutes

Answer only four questions

(1) i.. Describe the meaning of synthesis in the abilities of cognitive domain introduced by B.S.Bloom   (4 marks)

ii. Write four strategies with examples that can be used by a teacher to develop affective characteristics of students   (8 marks)

iii. "To be a successful teacher not only theoretical knowledge about categorization of Educational objectives but also creativity is needed" What is your opinion about this?   (8 marks)

(2) i. Write two examples for measurement, evaluation and assessment in relation to Education   (6 marks)

ii. What is the reason for giving high attention to assess psychomotor Domain also in the teaching learning process   (6 marks)

iii. Write a plan for assessing students performance using Authentic assessment principles   (8 marks)

(3) i. What methods can be used to assess students abilities in cognitive domain

(4 marks)

ii. With example write four characteristics of a good multiple choice question

(8 marks)

iii. What steps can be taken to minimize the negative characteristics of a open ended essay question (8 marks)

(4) i. Describe what is mean by content validity (6 marks)

ii. State briefly three factors that can effect to decrease the reliability of test scores (6 marks)

iii. State briefly two methods that can be used to assess the reliability

(8 marks)

(5) i. Following are marks obtained by 8 students for Music written type test and Practical test. Calculate Spearman rank order correlation coefficient and interpret the obtained value.

Student	A	B	C	D	E	F	G	H
Written test	20	75	20	69	65	65	70	54
Practical test	35	80	45	74	58	49	70	40

(8 marks)

Following is a frequency distribution of Mathematics marks of 50 students.

Score	Frequency
70-74	09
65-69	07
60-64	08
55-59	07
50-54	05
45-49	04
40-44	03
35-39	03
30-34	04

ii. Draw a Histogram for this score distribution (8 marks)

iii. Write four advantages of using graphs for analyzing scores (4 marks)

(6)   Following is a frequency distribution of mathematics marks of a group of
Students.

Score	Frequency
60-64	3
55-59	7
50-54	12
45-49	8
40-44	6
35-39	4
	40

i.   Calculate the mean   (7 marks)

ii. Calculate standard deviation   (7 marks)

iii. Score obtained by a GCE (A/L) student in a term test for three subjects and
     mean and standard deviation of marks of these subjects are given below.

	Language	Political Science	Geography
Mean	68	79	48
Standard deviation (S)	8	7	6
Sujith's Score	72	72	52

Write a short analysis about Sujith's achievement in relation to the achievement
marks of each subject.   (6 marks)

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$$\overline{X} = \frac{\varepsilon f x}{n} \qquad\qquad \overline{X} = i\left(\frac{\varepsilon f d}{n}\right) + A \quad,$$

$$S = i\sqrt{\frac{\varepsilon f d^2}{n} - \left(\frac{\varepsilon f d}{n}\right)^2}$$

$$S = \sqrt{\frac{\varepsilon f x^2}{n} - \left(\frac{\varepsilon f x}{n}\right)^2}$$

$$r = 1 - \frac{6 \in D^2}{n\,(n^2 - 1)}$$

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