SEMESTER FINAL EXAM
YEAR 2019/2020

Courses	:	Contextual Mathematics
Cans	:	Prof. Dr. Siti M Amin, M.Pd.
		Rooselyna Ekawati, Ph.D.
		Ahmad Wachidul Kohar, M.Pd.
		Shofan Fiangga, M.Sc
Class	:	Mathematics Education / 2018U/A/C
Day, Date	:	Thursday, 26 December 2019
Waktu	:	100 minutes
Type	:	Closed

Answer all the following questions with a clear description.

1. Select a material/ topic in mathematics for elementary or secondary school, then provide an analysis of the learning trajectory for such a topic from scientific reports or journal articles.

2. Construct a learning trajectory characterized by principles and characteristics of realistic mathematics education on the topic you have selected. Design the learning trajectory using the following format.
   Topics of mathematics: ....

No	Mathematical objectives	Student activities	Activity Description
1			
2			
3			
4			
5			

Communicate your learning trajectory within a classroom presentation.

--GOOD LUCK--

MINISTRY OF EDUCATION AND CULTURE

UNIVERSITAS NEGERI SURABAYA

FACULTY OF MATHEMATICS AND NATURAL SCIENCE

DEPARTEMENT OF MATHEMATICS

Kampus Ketintang, Jalan Ketintang, Gedung C8, Surabaya 60231

Telepon: +6231- 8297677, Faksimile: +6231- 8297677

Laman: http://fmipa.unesa.ac.id, email: fmipa@unesa.ac.id

PLO to be achieved through Contextual Mathematics Course:

	PLO								
	Knowledge			Skill			Competency		Attitudes and Social
COURSES	1	2	3	4	5	6	7	8	9
Contextual Mathematics	V	V		V		V		V	V

Knowledge-1

1. Able to demonstrate pedagogical knowledge to teach high school

Knowledge-2

2. Able to demonstrate mathematical knowledge and insight.

Skill-1

3. Able to apply logical thinking, and creative in implementing science according to the field of Mathematics Education and technology

Skill-3

4. Able to make informed decisions and evaluate the performance that has been done

Competency-2

5. Able to manage mathematics learning with various approaches, especially ICT-based Realistic Mathematics

Attitudes and Social-1

6. Able to work independently and collaborate with full responsibility

CONTEXTUAL MATHEMATICAL CLO:

1. Show knowledge of principles, characteristics of Realistic Mathematics, types of context related to life phenomena. (KN-1)
2. Demonstrate school math knowledge and insights such as numbers, algebra, measurement, geometry, opportunity & statistics, calculus and combinatorics (KN-2))
3. Applying realistic mathematics principles and characters in designing teaching materials and hypothetical learning trajectories for Mathematics learning with its Realistic Mathematics approach. SK-1)
4. Make decisions in evaluating learning trajectories as well as student worksheets that have been developed. (SK-3)

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5. Able to model math learning with Realistic Mathematics and ICT-based approach (COM-2)
6. Perform self-assigned tasks and collaborate with full responsibility (SOC-1)

Indicators:

1. Analyzing learning trajectories in school math materials characterized by realistic mathematics learning approach (KN-2)

2.

- ✓ Designing learning trajectories on selected school math materials using realistic mathematics learning approach (COM-2)

- ✓ Design a set of tasks in student worksheet in learning steps based on the designed learning trajectory (SK-3)

- ✓ Communicate learning trajectories in classroom teaching and learning (COM-2) (SOC-1)