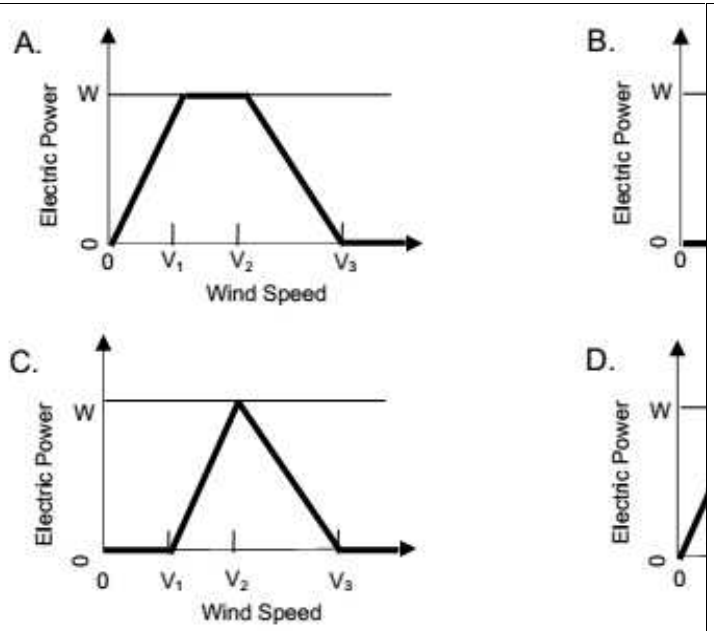
FINAL TEST QUESTIONS AND RUBRIC ASSESSMENT

COURSES : ASSESSMENT
EXAMS : CLOSE BOOK
TIME : 100 MINUTES

No.	Problem Indicators	Item Details	Key Answer	Scoring Guidelines
1.	Analyze test items based on Bloom's taxonomic thinking level with the argument!	**a. Consider the following test item!** Wind Farms Many people believe that wind should replace oil and coal as a resource of energy for producing electricity. The structures in the picture are windmills with blades that are rotated by the wind. These rotations cause electricity to be produced by generators that are turned by the windmills.  **A wind farm** The stronger the wind, the faster the windmill blades rotate and the greater the electric power in a real setting. Below are four working conditions of electricity generation in a real wind farm. • The windmill blades start rotating when the wind speed reaches V_1. • The electric power output reaches a maximum (W) when the wind speed is V_2. • For safety reason, the blades are prevented from rotating faster than they do when the wind speed is V_2. • The blades stop rotating when the wind speed reaches V_3. Which one of the following graphs best represents the relationship between wind speed and electric power output under these working conditions?	This test item is included in the category of questions with the level of cognitive thinking C-4 (analyze-synthesis). This is because in the test item provide four electricity generation conditions existed in a real wind farm and the order of questions to change the explanation into a graph of the relationship between electric power and wind speed. Toa answer this problem, students must analyze each given condition first and then synthesize it in graphical form.	Maximum score: 10 Score 10 if the student give the answer completely Score 8 if the sudent have the correct answer of Bloom's taxonomy and give argument, but the argument is not complete. Score 5 if the student have the correct answer of Bloom's taxonomy but not given the argumen Score 2 if student give the answer and argument, but it is false. Score 0 if no answer from student

		 **Analyze the test item based on Revision Bloom's taxonomy, including what level of test item is it? Give your arguments. (Score 10)**		
1	2) Arrange the indicators refers to Basic Competence of national curriculum Indonesia on Physics. 3) Make an assessment	**b. Consider Basic Competencies for physics courses in national curriculum of Indonesia (Kurikulum 2013)** 3.3 Menerapkan hukum-hukum fluida statik dalam kehidupan sehari-hari. 4.3 Merancang dan melakukan percobaan yang memanfaatkan sifat-sifat fluida statik, berikut presentasi hasil percobaan dan pemanfaatannya. **Based on Basic Competencies above:** **1) Make each of the indicators refer to Basic**	Answer are open, not only one answer. **Poin 1)** The indicators for knowledge competence that are made is true if the indicators meet the component of ABC, that is Audience, Behaviour, and Condition. The indicators made is also corresponding to the basic	Poin 1) Maximum Score: 10 Score 10 if student answer completely Score 5 if student only make the indicators of knowledge competence only or skills competence only

	instrument based on the indicators.	**Competence 3.3 and 4.3. (Skor 10)** **2) Make an assessment instrument with scoring guidelines based on the indicators you have made. (Skor 20)**	competence. Example: Students can apply the principle of Pascal in solving problems for lifting car. For the skills competence, the indicators must be show that students doing something. Example: Students can design the experiment to show the relationship between the force and the cross-sectional area in each piston. Poin 2) 1. Students make the item test for knowledge competence based on indicators made. 2. Students make the score guidelines for knowledge assessment. 3. Students make the observation table to assess the activities based on the indicators. 4. Students make the scoring guidelines based on the instrument made.	Score 0 if no answer from student Poin 2) Maximum Score: 20 Score 20 if student make the complete design assessmebt based on the indicators Score 15 if only 3 component of key answer given by student Score 10 if only 2 component of key answer given by student Score 5 if only 1 component of key answer given by student Score 0 if no answer from student

	Describe the five taxonomy of affective assessment and give the examples.	2. (Maximum Score 20) **There are 5 (five) taxonomy of affective assesment. Receive, Respond, Value, Organize, and Characterize. Explain each item and give an example of affective assessment!**	Receive: student receive the information from teacher well. Example of observation activity: students listen well when the teacher explains the subject matter Respond: student give the respond to the information obtained. Example of observation activity: student ask question or asnwer the question when discussed the subject matter. Value: students have the attitude that learning have value to his life. Example of attitude: student feel happy to learn. Organize: student can organize her/his self to study. Example: student can manage her/his self to study. Characterize: student have inherent character. Example: diligent student.	Maximum score: 20 Score 20 if student give the answer completely. There are 10 components, 5 explanations and 5 examples. So, each component have score 2.
a.	b. Determine the reliability of the test items and describe the meaning. c. Determine the level of difficulty of each item	3. (Maximum Score 40) **5 students on senior high school performed multiple choice objective test with 5 test items. Item was answered correctly = 1, while the item answered wrong = 0. The table below show the recapitulation of daily test of static fluid in physics subject matter.** STUDENT | RECAPITULATION OF DAILY TEST OF STATIC	Poin a) Students do the analysis in the following order: - Make a recap of student learning outcomes in the form of binary number (1 0) based on true-false answer.	Maximum Score: 40 Poin a) Maximum score: 20 There are 4 component, each component have score 5.

		INITIAL	FLUID				
			QUESTION 1	QUESTION 2	QUESTION 3	QUESTION 4	QUESTION 5
		S1	A	B	D	D	C
		S2	A	B	D	C	C
		S3	B	B	D	A	C
		S4	C	C	B	A	A
		S5	D	C	B	A	D
		Answer	A	B	D	D	C

a. **Determine the reliability of the test items! What is the meaning? (Score 20)**

b. **Determine the Level of Difficulty for each item! (Score 20)**

- Do statistical analysis to find the correlation value.
- Calculate the value of the correlation coefficient
- Give the explanation about the value of the correlation coefficient. It has high reliability.

Poin b)

Use the formulation of difficulty level (P=B/J)

Item 1 = 2/5 = 0.4 (moderate)

Item 2 = 3/5 = 0.6 (moderate)

Item 3 = 3/5 = 0.6 (moderate)

Item 4 = 1/5 = 0.2 (difficult)

Item 5 = 3/5 = 0.6 (moderate)

Poin b)

Maximum score: 20

There are 5 component., each component have score 4.