

GUIDELINES

MAKING EXAM QUESTION

15 APRIL 2020

LEARNING DEVELOPMENT AND
QUALITY ASSURANCE INSTITUTE



Universitas Pembangunan Nasional
Veteran Jawa Timur

INTRODUCTION

Praise and gratitude the Preparation Team offers to Allah SWT, because by His grace and blessing the Preparation Team was able to complete the Test Question Preparation Guidelines. These guidelines would not have been completed without the support and assistance of various parties. The Preparation Team are only people full of all kinds of shortcomings and ignorance who would not have been able to make these Guidelines more meaningful without the support of various parties. The Preparation Team, with full sincerity and humility, expresses their gratitude to all parties who have sincerely and attentively taken the time to provide encouragement and value in completing these Guidelines.

These guidelines were prepared to answer the challenges of improving the quality of learning evaluation implementation at the Pembangunan Nasional Veteran University of East Java. Evaluation is a process of assessing learning outcomes or measuring students' understanding of the concepts of the material that has been studied in the teaching and learning process. Evaluations must be carried out systematically and continuously in order to describe the abilities of the students being evaluated. To achieve good evaluation objectives, it is necessary to master various methods for conducting relevant evaluations.

This guide only discusses the test evaluation method. The test is one of the evaluation tools. A test can be said to successfully carry out its measurement function if it is able to provide accurate and accurate measurement results. There are two forms of tests, namely objective tests, namely multiple choice tests, matching tests, true false tests, short answer tests and subjective tests, namely essay or description tests. The Preparation Team would like to thank all parties, both directly and indirectly, for their support and assistance in completing these Guidelines.

Surabaya, April 15, 2020

Sincerely,

The Preparation Team

PREPARATION TEAM

The Preparation Team consists of the Coordinator of the Learning Development Center and all personnel of the Learning Development and Quality Assurance Institute (LP3M), namely: LP3M Chair, LP3M Secretary, Quality Assurance Center Coordinator, National Defense Center Coordinator, International Certification Center Coordinator, Professional Certification Institute Coordinator and supported administratively by Education Personnel. In full as follows:

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I. INTRODUCTION

Evaluation is a process of assessing learning outcomes or measuring students' understanding of the concepts of the material that has been studied in the teaching and learning process. Evaluations must be carried out systematically and continuously in order to describe the abilities of the students being evaluated. To achieve good evaluation objectives, it is necessary to master various methods for conducting relevant evaluations.

Broadly speaking, evaluation methods in education can be divided into two forms, namely tests and non-tests. This guide only discusses the test evaluation method. The test is one of the evaluation tools. A test can be said to successfully carry out its measurement function if it is able to provide accurate and precise measurement results. There are two forms of tests, namely objective tests, namely multiple choice tests, matching tests, true false tests, short answer tests and subjective tests, namely essay or description tests (Febyronita and Giyanto, 2016).

****1.1. Objective Tests****

The role of written tests as a measuring tool to obtain information from various aspects of education is very important. The most fundamental thing in educational assessment is the measurement of learning outcomes or learning achievement. A decision requires accurate, relevant and reliable information. More perfect decisions when the measuring instruments used to obtain this information are objective and unbiased are multiple choice objective tests.

As far as the use of multiple choice objective tests in the implementation of national exams, there have always been groups that criticize which in the end create pros and cons for the national exams. The correct answer in a multiple choice objective test is a

chance factor because of guessing, moreover multiple choice tests only measure recognition.

Although there are criticisms of multiple choice objective tests, the role of multiple choice objective tests in Indonesia is growing wider. In addition to the weaknesses of multiple choice objective tests, multiple choice tests have advantages. The quality of multiple choice objective tests depends on the ability of the item maker. Preparation of multiple choice objective tests requires high skill and professional ability, seriousness and creativity so that tests that are truly objective and good are produced.

From a qualitative point of view, the weaknesses of poor items lie in the material, construction and language which generally cause misconceptions. From a construction point of view, the selection or determination of alternative answers can cause items not to meet the requirements as good items, because to get relevant and meaningful distractors is very limited (Alwi, 2010).

****1.2. Essay Tests****

Essay tests are very popular, especially in higher education. Its popularity is due first because it is easy. In contrast to objective tests, essay tests are relatively easier to prepare, but difficult to check student answers. Another thing is security for the examiner. The author of the essay test is rarely asked to defend/ensure the correct answer or show that there is no wrong answer better than the right one. Students are not given answers that are already available, but must master a lot of knowledge, which allows them to develop facts and principles, to arrange them coherently and logically, and then apply these ideas by writing expressions. Answers given to essay test questions can often provide clues about the form and quality of the student's thought process.

Many traits that can be measured by essay tests are not clearly defined, such as critical thinking, originality and the ability to organize and combine. The character of the

answers presented, to indicate which students have more/less ability, is rarely explicitly regulated further. The scale according to Ebel (1987), to assess essay test answers, shows that the length of the student's answer is related to the score the student gets. The longer the answer, the higher the value.

According to Siswanto (2006), surveys prove that students study more seriously and thoroughly in preparation for essay form exams than objective tests, to pay attention to their influence on learning, the important question is not how the student's learning model is in facing exams, or even how they actually study, but how this difference affects their learning achievement results.

In working on essay tests there is also pressure when writing answers. But this can be an advantage as well as a disadvantage. Writing expressions is an important skill demanded by an essay test. But the writing practice may be bad, hasty and rough writing practice. Even worse, the writing ability will affect the scoring of the content of the answer. Handwriting that is easy to read and fluent, with graceful/smooth sentences, can cover up shortcomings in terms of content. Conversely, spelling and grammatical errors can reduce scores on content.

But not all readers or lecturers can be "intimidated" like that. This can be a kind of technique that can be taught to students, how to succeed in essay tests, such as "guessing" in objective tests.

The main limitation of essay tests as a measure of achievement in class is the low reliability of the scores obtained. Low reliability means there is inconsistency between scores obtained from the same test or equivalent tests. Overall there are 3 conditions that cause this low reliability, namely:

1. limited sampling in terms of content,
2. ambiguity of commands in essay test questions,
3. subjectivity of answer scores.

In general, the greater the number of independent elements in the sample of tasks selected for an achievement test, the more accurate the test results will reflect the overall learning outcomes achieved. Measurement of educational institution achievement must be reliable, so that it is useful. Reliable means being able to prove independently. If the same lecturer gives different scores to the same essay test answers on another occasion, or if different teachers do not agree in the same way, then confidence in the assessment will falter and its usefulness will also decrease.

1.3. Comparison of Objective and Essay Tests

The following statements summarize some similarities and differences between objective tests (OT) and essay tests (ET). The similarities are as follows:

1. can be used to measure almost all important educational achievement that can be measured by written tests,
2. can be used to encourage students to understand principles, organize and integrate ideas, and apply knowledge to solve problems,
3. The use of both involves subjective judgment,
4. The price scores of both depend on objectivity and reliability.

The differences are as follows:

1. OT questions require students to choose answers from several available alternatives. ET questions require students to plan their own answers and express them in their own words.
2. OT consists of specific questions, which only require brief answers. ET consists of relatively broad questions, general questions that produce broader answers.
3. In OT students spend a lot of time reading and thinking. In ET students spend a lot of time thinking and writing.
4. The quality of an OT is determined by the test compiler's skills. The quality of ET is

determined by the skill of the person scoring the answers.

5. A good OT is relatively difficult to prepare, but easy to score. An ET is relatively easier to prepare, but rather difficult to assess accurately.
6. OT gives the test compiler the freedom to express their knowledge, but allows students to only show the correct part of the answer, as much as they know, or as much as they can do. ET gives students the freedom to express their answers and the freedom of appraisers to score answers.
7. In OT, the commands and scoring bases are stated more clearly than in ET.
8. OT sometimes conditions an element of guessing. ET conditions an element of bluffing.
9. The score distribution on OT is determined by the test itself. The score distribution produced by an ET can be controlled by the appraiser.

II. QUESTION PREPARATION

2.1. Exams

Exams are one form of evaluation of students to see the achievement of competencies that have been set in the Semester Learning Plan (RPS). Through the exam it can be seen whether students are able to master the competencies expected from the courses taken.

In conducting evaluations, internal quality standards must be met, namely:

- a. The evaluation components must be in accordance with the learning outcomes of a course as stated in the RPS.
- b. The evaluation system for lectures must include process and outcome assessments.
- c. The implementation of the evaluation must consist of Mid Semester Exams (UTS), Final Semester Exams (UAS), assignments and can be added with quizzes or other instruments determined by the Department/Study Program.
- d. UTS and UAS exam questions must be validated by peer reviewers appointed by the Department/Study Program.
- e. Exam assessment must be based on the principles of transparency and accountability. It is important to ensure that the exam material tested represents the material that has been planned in learning activities.

2.2. Standards for Preparing Exam Questions

In preparing exam questions, standards must be met which include format and material standards as follows (example in Appendix 1):

2.2.1. Question Sheet Format

1. Use the official letterhead of the Faculty/Department/Study Program.
2. A4 paper.

3. Question Sheet Identity contains:

- a. Name of Exam Subject.
- b. Credits/Semester.
- c. Day/Date/Time.
- d. Locale.
- e. Duration of working on questions (60 - 120 minutes)
- f. Lecturer in charge.
- g. Exam Period (UTS/UAS)
- h. Academic Year.

4. Instructions for working on questions contain:

- a. Form of Exam: Open book/closed book
- b. Special SOPs are made for take home exams
- c. How to work on questions: Questions may or may not be in sequence. or specific things that need to be explained by the person in charge
- d. Procedure for leaving the room
- e. Do not use cell phones during the exam
- f. Sanctions.

5. Exam Questions

- a. Question numbers are arranged in sequence based on the level of difficulty of the questions and adjusted to the weight.
- b. Combination of objective question forms consisting of: regular multiple choice, complex multiple choice and multiple choice analysis of inter-relationships/causes-effects (6 - 12 questions) and essays (4 - 8 questions).
- c. Include the value weight for each question.

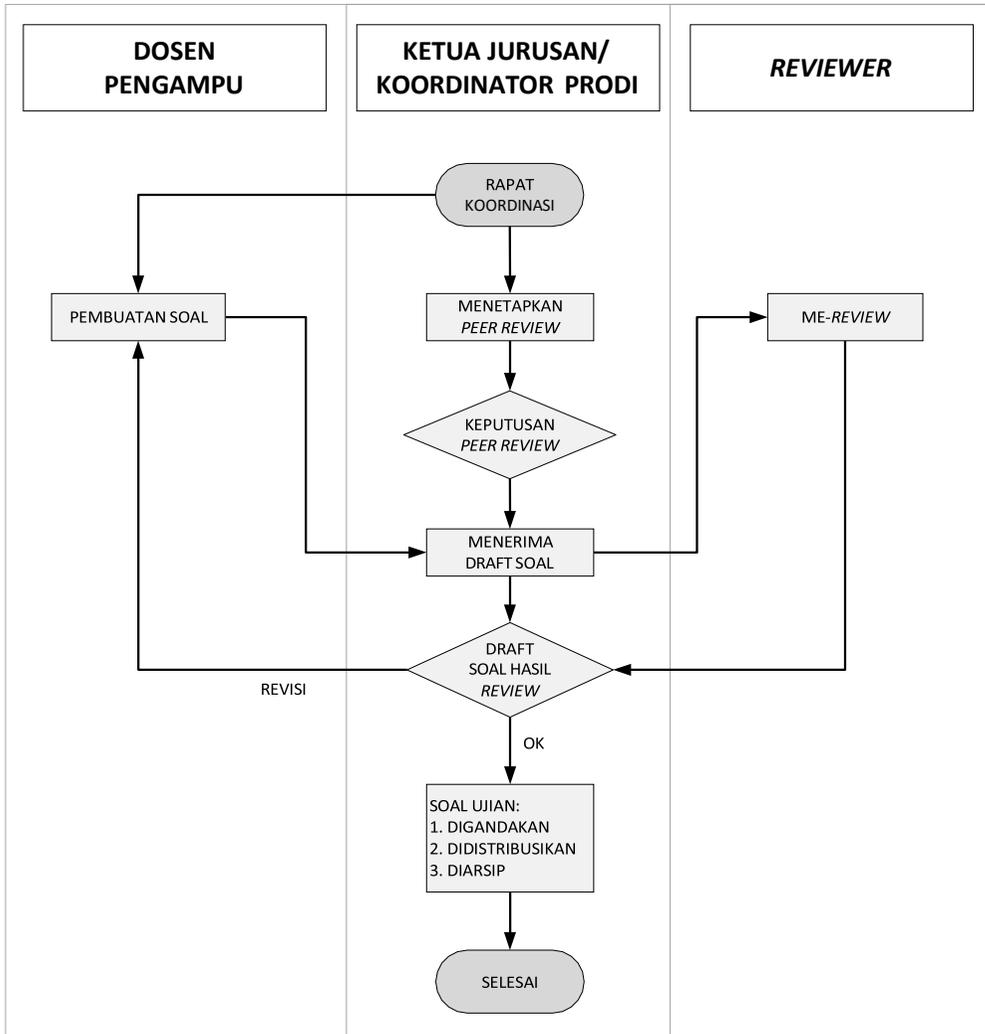
6. Closing

Contains a moral appeal (for example: Thank you for answering honestly, good luck working, plagiarism is corruption).

2.2.2. Question Material

1. Exam questions are in accordance with the RPS.
2. The material tested is in accordance with the exam period.
3. The exam questions include the competencies/_learning outcomes_ listed in the RPS (cognitive/affective/psychomotor).
4. Include the value weight for each question.
5. The value weight of the questions is in accordance with the level of difficulty. Value weights are set in the range (easy 4-7; medium, 7-10; difficult 10-15).

2.1. Review Implementation SOP



LEGENDA :

= Awal/akhir = Garis alir aktivitas

= Proses

= Keputusan

Pict 2.1. Exam Review SOP

Peer Review determination through Decree of the Dean. Duplicate peer review forms (peer review form in Appendix 2).

****2.1. Peer Review Implementation Timeframe****

Peer review is carried out no later than 7 (seven) days before the midterm or final semester exams are held.

****2.2. Exam Results****

To ensure transparency and accountability of assessment, students need to know the results of assessments made by lecturers by announcing the results of exam assessments and returning the corrected exam answer sheets to students. Returning the exam answer sheets to students is done using a minutes of submission of answer sheets witnessed by two exam participants and the lecturer in charge of the course (Example Form for Minutes of Submission of Answer Sheets in Appendix 3).

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Bibliography

- Alwi, I. 2010. Pengaruh Jumlah Alternatif Jawaban Tes Obyektif Bentuk Pilihan Ganda terhadap Reliabilitas, Tingkat Kesukaran dan Daya Pembeda. *Jurnal Ilmiah Faktor Exacta*. Vol. 3 No. 2. Hal 184-193.
- Ebel, R. L dan Frisbie, D. A. 1987. Essentials of Educational Measurement. *Journal of Educational Measurement*. Vol. 24, No. 2. Hal 182-184.
- Febyronita, D dan Giyanto. 2016. Survei Tingkat Kemampuan Siswa dalam Mengerjakan Tes Berbentuk Jawaban Singkat (*Short Answer Test*) pada Mata Pelajaran IPS Terpadu (Geografi) Kelas Vii Di Smp Negeri 1 Mesuji Tahun Pelajaran 2015/2016. *Jurnal Swarnabhumi*. Vol. 1, No. 1. Hal 17-21.
- Siswanto. 2006. Penggunaan Tes Essay dalam Evaluasi Pembelajaran. *Jurnal Pendidikan Akuntansi Indonesia*. Vol. V, No. 1. Hal 55-61.
- Universitas Airlangga. 2017. Pedoman Pelatihan Peningkatan Keterampilan Dasar Teknik Instruksional. Pusat Inovasi Pembelajaran dan Sertifikasi. Surabaya.

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Lampiran 1. Exam Examples

	KEMENTERIAN RISET, TEKNOLOGI DAN PENDIDIKAN TINGGI UNIVERSITAS PEMBANGUNAN NASIONAL "VETERAN" JAWA TIMUR FAKULTAS TEKNIK PROGRAM STUDI TEKNIK SIPIL
	SOAL UJIAN TENGAH SEMESTER

MATA KULIAH	:	STRUKTUR BANGUNAN
DOSEN PENGUJI	:	DR. I Nyoman D. Pahang Putra., ST, MT Zetta Rasulia Kamandang., ST, MT, MSc
PROGRAM STUDI	:	TEKNIK SIPIL
HARI/TANGGAL	:	2020
WAKTU	:	WIB (75 MENIT)
SIFAT UJIAN	:	BUKA CATATAN A4 – 2 halaman (asli)
SEMESTER	:	GENAP
TAHUN AKADEMIK	:	2019/2020

PERHATIAN:

- Bacalah pertanyaan / soal ujian dengan teliti.
- Periksa kembali jawaban Saudara sebelum diserahkan kepada Pengawas Ujian.
- Soal dikumpulkan kembali beserta lembar jawaban Saudara.
- Bagi Saudara yang meninggalkan tempat ujian, maka pekerjaan ujian Saudara dianggap selesai.
- Tidak menggunakan telpon *celluler* selama ujian berlangsung.
- Tidak bekerja sama dengan teman yang lain.

Jika dalam pelaksanaan ujian, melanggar ketentuan yang ditetapkan, maka mahasiswa akan dianggap gugur/tidak mengikuti ujian.

SOAL:

PILIHAN GANDA BIASA:

- Teknik sipil lebih menurus pada penentuan metode dan ..., sehingga dapat ditentukan berapa dimensi struktur yang andal dan kebutuhan bahannya.
 - perilaku strukturnya
 - kajian pembebanannya
 - media strukturnya
 - analisis statikanya
 - analisis struktur
- 

Biasanya minimal menggunakan ukuran ...

 - 0,2 mm
 - 0,15 mm
 - 0,125 mm
 - 0,1 mm
 - 0,075 mm

PILIHAN GANDA KOMPLEKS:

- | | |
|--|--|
| A bila pernyataan 1,2 dan 3 benar | D bila pernyataan 4 saja yang benar |
| B bila pernyataan 1 dan 3 benar | E bila semua pernyataan benar |
| C bila pernyataan 2 dan 4 benar | |

3.



Kesalahan penggambaran denah tersebut adalah:

- (1) tidak terdapat dinding keliling
- (2) tidak terdapat elevasi lantai
- (3) jendela ruang tidur pembantu rumah tangga yang langsung berhubungan dengan sisi luar
- (4) km/wc lantai 2 sisi Timur yang tidak memiliki ventilasi

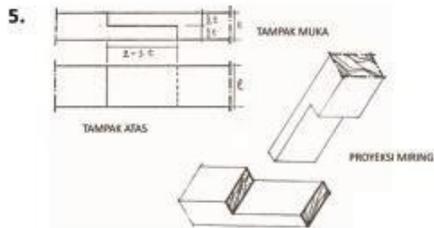
4. Bangunan harus memiliki syarat:

- (1) fungsional dan indah
- (2) kuat dan awet
- (3) higienis
- (4) ekonomis

PILIHAN GANDA ANALISIS HUBUNGAN ANTAR HAL (SEBAB-AKIBAT):

Pilihlah :

- A. Bila pernyataan **benar**, sebab **benar** dan **berhubungan sebab-akibat**
- B. Bila pernyataan **benar**, sebab **benar** dan **tidak ada hubungan sebab-akibat**
- C. bila pernyataan **benar**, sebab **salah**
- D. bila pernyataan **salah**, sebab **benar**
- E. bila pernyataan **salah**, sebab **salah**



Sambungan balok kayu memanjang tersebut diatas merupakan sambungan pada balok yang mengalami gaya tarik

SEBAB

Sambungan pada balok yang mengalami gaya tarik tidak perlu pengunci pada sambungannya.

6. Pada pembuatan kusen harus memperhitungkan lebar sponing

SEBAB

Lebar sponing harus disesuaikan dengan ketebalan daun pintu atau daun jendela yang digunakan.

ESAI:

7. Gambarkan sambungan sudut pada papan.
8. Gambarkan hubungan potongan siku pada pasangan bata.
9. Jelaskan dan gambarkan macam ukuran bata.
- 10.



Jelaskan nama dan fungsinya.

PERHATIKAN:

- Bobot nilai soal nomor 1 - 4 (masing-masing 6,25)
- Bobot nilai soal nomor 5 - 6 (masing-masing 7,5)
- Bobot nilai soal nomor 7 - 10 (masing-masing 15)

Acuan	Soal ini dibuat oleh:	Ditinjau dan divalidasi oleh:
1. RPP - RPS 2. Kurikulum Prodi Teknik Sipil 2015	 DR. L. Nijman D. P. Wang P. Uta, ST, MT NIDN. 0717037003	 DR. Ir. Minarni N. P. N. Lita, MT NIDN. 0006026909

Terima kasih telah berperilaku jujur

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Lampiran 2. Form *Peer Review* Soal Ujian****A. IDENTITY OF REVIEWED COURSE****

1. Course Name:
2. Lecturer :
3. Study Program :
4. Semester: a. Odd b. Even
5. Exam Period: a. Midterm b. Final

****B. QUESTION SHEET FORMAT****

1. Course name:
 - a. Available
 - b. Not available
2. Credits/Semester:
 - a. Available
 - b. Not available
3. Study Program:
 - a. Available
 - b. Not available
4. Exam duration:
 - a. Available
 - b. Not available

5. Lecturer's name:

- a. Available
- b. Not available

6. Paper use:

- a. Uses University/Faculty/Department/Study Program letterhead
- b. Does not use University/Faculty/Department/Study Program letterhead

7. Instructions for working on questions contain:

- a. Exam form (open/closed) : a. Available b. Not available
 - b. How to work on questions : a. Available b. Not available (may or may not be in sequence)
 - c. Sanctions : a. Available b. Not available
 - d. Prohibition of using : a. Available b. Not available cell phones during exams
8. The closing contains a moral appeal to encourage, not cheat during the exam.
- a. Includes b. Does not include

****C. QUESTION MATERIAL****

1. Relevance of question material with RPS:

- a. Relevant b. Less relevant
- c. Not relevant

2. Question number order:

- a. Question numbers are arranged based on level of difficulty and weight.
- b. Question numbers are not arranged based on level of difficulty and weight.

3. Essay questions as many as:

- a. 3-5 questions b. More than 5 questions
4. Multiple choice questions as many as:
 - a. 6 questions b. More than 6 questions
5. Tested material corresponds to exam period (UTS/UAS):
 - a. Appropriate b. Inappropriate
6. Exam questions include competencies/learning outcomes listed in RPS
 - a. Includes all (cognitive/affective/psychomotor).
 - b. Does not include all.
7. Each exam question includes:
 - a. Value weight b. Does not include value weight
8. The value weights listed in the questions correspond to the level of difficulty.
 - a. Appropriate b. Inappropriate

****D. SUGGESTIONS FOR IMPROVEMENT****

1.
2.
3.
4.

****REVIEWER****

Name and Signature

Appendix 3. Form for Minutes of Submission of Answer Sheets

MINUTES OF SUBMISSION OF ANSWER SHEETS

On, answer sheets that have been corrected by the lecturer in charge of the course:

Course :

Study Program :

Lecturer in Charge:

Have been submitted to students participating in the course/student representatives who will distribute them to all participants.

This Minutes is made as evidence that the Lecturer in Charge of the course has submitted the corrected answer sheets to the course participants.

Surabaya,

Witness I

Witness II

Student

Student

.....
.....

Lecturer in Charge of the Course

.....

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