

### CHECKLIST FOR MODERATION OF EXAMINATION PAPERS

Course Code: ..... Course Title: .....

Exam Date: ..... Exam Time:.....

Course Instructor: ..... Course Coordinator:.....

Department: .....

Moderation of examination paper will be applied to all undergraduate courses taught in the college of computer science and information systems. The objective of moderation process is to ensure the quality of exam papers and to achieve the goals of course assessment.

#### Section 1: For Course Instructor

S. No	Description	Yes	No	Comments
1	Do all questions included in exam are consistent and have relationship with course learning outcome (CLOs) ?			
2	Are the questions complete able in the time allotted?			
3	Is the marking scheme sufficiently detailed to allow efficient and consistent marking?			
4	Do the questions in the exam are obvious and unambiguously communicate the intentions of course instructor? i.e., could a student sitting in the exam reasonably be expected to know what is required from him?			
5	Does the examination fairly cover the material examined?			

6	<p>Bloom's taxonomy levels were considered in question designing according to the level of difficulty of CLO</p> <p>a) Do exam cover 20% to 30% of questions to the basic (i.e. knowledge) level of Bloom's taxonomy?</p> <p>b) Do exam cover 60% - 70% of questions to the intermediate (i.e. Comprehension, Application and Analysis) level of Bloom's taxonomy.</p> <p>c) Do exam cover 10% - 20% of questions to the advanced (Synthesis and Evaluation) level of Bloom's taxonomy</p> <p><i>[Please see the appendix for more on marks distribution]</i></p>			
7	Does exam is following the guidelines approved by college. e.g. font size, style, cover page etc.			

**Section 2: For Course Coordinator**

S. No	Description	Yes	No	Comments
1	Do the questions reflect the Learning Outcomes adequately?			
2	Is the presentation and layout of the examination paper approved by the college's exam preparation guidelines?			
3	Are the questions clear and unambiguous?			
4	Does the length and difficulty level of the exam is appropriate?			
5	Are the mark allocations for questions appropriate?			
6	Is numbering of pages and questions correct?			
7	Are all figures, tables and equations included and correctly numbered?			
8	Is grade distribution among the basic, intermediate and advanced			

	level of Bloom's taxonomy as defined in the exam preparation?			
9	Does exam not similar to the last four semester exam?			
10	Does course instructor send model solution for his/her exam.			

General comments on the examination paper and model solution:

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Moderators Signature ..... Date: .....

# Appendix A

## Guidelines to Prepare and Review the Examination Papers

These guidelines applied to all undergraduate courses taught in the college of computer science and information systems. The objective of these guidelines is to ensure the quality of exam papers and to achieve the goals of course assessment.

### 1. Exam Preparation (For Course Instructor)

Each course instructor needs to consider the following main points during exam preparation:-

1. All questions included in the examination paper must be consistent and have the relationships with the Course Learning Outcome(CLOs) which defined in the course syllabus. i.e. action verb used in question designing must be at the same level of difficulty of that CLO. Assume that; we have the following Course Learning Outcome (CLO):

*"Design an entity relationship diagram for a real-life problem."*

The action verb used in above CLO is "**Design**", so your question must be related to designing level, not memorisation.

2. Do the questions in the exam are obvious and unambiguously communicate the intentions of course instructor? i.e., could a student sitting in the exam reasonably be expected to know what is required from him?
3. Are the questions completable in the time allotted?
4. Is the marking scheme sufficiently detailed to allow efficient and consistent marking?
5. Does the examination fairly cover the material examined?
6. Are there any technical (e.g. mathematical) and grammatical errors?
7. Could the writing style be improved?
8. Improve your question paper based on the course coordinator comments.

#### 1.1 Practical guidelines to prepare your exam's questions:

1. Use Course Learning Outcomes as guidelines to design questions in the exam.

2. All questions must be consistent with CLOs because your exam is to assess if the students have achieved the course learning outcomes or not.
3. Check Bloom's taxonomy levels for each CLO in your course and design the question according to the level of difficulty. For example, if an action verb in a CLO is "**Define**", then your question should be a knowledge level question not higher level.

Most of the Student Outcomes (SO) of the Computer Science and Information System program fall into the intermediate level of Bloom's taxonomy (i.e. Comprehension, Application and Analysis). Moreover, CLOs of all courses are consistent with the Student Outcomes of the program. Thus we can conclude that course CLOs in CS and IS program divided into three sections:

- d) 20% - 30% of the CLOs falls into the basic (i.e. knowledge) level of Bloom's taxonomy. For example, "**Define** the key terminologies and concepts of data communications and networking."
- e) 60% - 70% of the CLOs falls into the intermediate (i.e. Comprehension, Application and Analysis) level of Bloom's taxonomy. For example "Implement basic algorithm and ADTs using different data structures strategies in Object Oriented Programming (OOP) language."
- f) 10% - 20% of the CLOs falls into the advanced (Synthesis and Evaluation) level of Bloom's taxonomy. For example, "Decide which type of data structures and algorithms best suits the problem they are solving".

For the above reasons, the weight of each question in the exam should be distributed as follows:

**1. Basic (Knowledge) Level Question (20% - 30%)**

- Maximum 30% marks of whole question paper are related to the knowledge level of Bloom's taxonomy.
- Type of questions
  - ✓ Multiple Choice Questions (MCQs): No more than four choices and do not use the double negative NOR any of the above/all of the above statements.
  - ✓ True/False

- ✓ Direct question based on the memorization. For example, definitions, syntax, formula, keywords/commands/functions, etc.

## **2. *Intermediate (Comprehension, Application and Analysis) Level Questions (60% - 70%)***

- Your question paper should contain questions that have weight 60% to 70% to test the student's comprehension, problems solving, analysis and application skills.
- Type of questions
  - ✓ Comprehension-based questions like containing the words WHY, WHEN, HOW, DIFFERENCES, SIMILARITIES, COMPARE etc.
  - ✓ The intermediate level question should not contain any question starting with words like WHAT, DEFINE, OUTLINE etc.
  - ✓ Questions should also be related to the application of concepts and problem-solving (numerical based, error findings, finding outputs, writing small algorithm/program, converting a problem into another form etc.).

## **3. *Advanced (Synthesis, Critical Thinking and Evaluation) Level Questions. (10% - 20 %)***

- Your question paper may contain questions that have weight 10% to 20% to test the student's critical thinking ability.
- Type of questions
  - ✓ The question might be of applied nature AND/OR of the union of many concepts discussed during the courses.
  - ✓ The questions must not be any solved problem in the book/lecture hall/tutorials/lecture slide or notes.

### **1.2 Sent to the course coordinator**

After designing exam paper, the course instructor is required to send word file of the exam and key solution (both passwords protected) to his/her course coordinator three to four days before the exam date.

## **2. Exam Review (For Course Coordinator)**

Each course coordinator has to consider the following points during the review of examination papers.

1. Check the format of the exam, i.e. font size, font style, cover page, header and footer etc.
2. Check if CLOs are available in the exam.
3. Check if CLO questions and subsections alignments are appropriate.
4. Check the length and difficulty level of the exam.
5. Check grade distribution among the basic, intermediate and advanced level of Bloom's taxonomy as defined in the exam preparation.
6. Check if the exam is not similar to the last four semester exams.
7. Send review comments on same word file to the instructor a minimum two days before the exam date.