



# PFM Computer Practice

## Examination Grading Standard



## Common Problems in Grading Case Study or Spreadsheet Based Examination

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Every professional certification program should ensure that the program candidate possesses at least a well-defined minimum competency level to become eligible to hold a particular designation. In the field of financial analysis and financial modeling, ultimately, the proficiency has to be demonstrated through the development of a full set financial model.

Unfortunately, an analysis is something which can produce uniquely different results among individuals. It is difficult if not impossible to get a single correct answer on the analysis conducted. When preparing a financial model, the problem is even more profound. If you gather a large number of people doing financial model for the same company, you may find that almost no one produces the same results. This condition leads to many problems when testing the proficiency of a person when developing a financial model.

### **1. Variation of financial model formats and results among test taker mainly results in a grading process which is largely based on subjective judgment of graders.**

Financial model is a field which requires a lot of personal judgment and analysis, causing highly divergent work by different candidates. Personal judgment makes the grading process of such work to become difficult as standardization of grading process must require qualitative guidelines which can be interpreted differently by different graders.

In that case, subjectivity of the grader plays great role in determining pass or fail and grades. Such subjectivity causes similar quality work by candidates to receive significantly different grades by different graders, or even by the same grader at different time. This could be caused by difference of perception, knowledge, personal standard (flexible versus perfectionist) or even mood.

## **2. Personal like or dislike on the candidate may also cause real subjectivity.**

Graders may bring factors such as race, gender, social status, seniority level and even familiarity with the candidate and personal interest as a determinant factor for grading. For example, a grader may be tempted to provide better grading to a candidate with whom he/she has a personal interest such as a client. All kinds of subjectivity cause the exam process and result to become questionable.

Subjective grading process undermines the whole process and in general, undermining the credibility of the certification program significantly. In certification program, even though some subjectivity remains when grading spreadsheet-based work, such subjectivity has to be reduced to such an extent that it does not significantly affect the quality of the grading or the assessment of candidate competence.

## **3. Another problem facing spreadsheet-based financial model is perception variation among candidates.**

A case study, no matter how refined, will be viewed differently by different people which creates a confusing paradox. The case study must be complicated enough to enable credible assessment on the competency of the candidate.

However, a complicated case study in financial model means different candidates will prepare models differently, resulting in different results and analyses as well. In developing complex models, there could be a situation where none of the candidates produce the same work result.

This is caused by the fact that a financial model may have numerous assumptions and connectivities, in which everything has to be calculated differently. The difference on the calculation in one cell may affect the end result. It is unfair to judge a candidate to be incompetent only because of difference in calculation methodologies in some spreadsheet cells.

This makes grading process difficult, as a grader is commonly equipped with answer key. In many cases, it is impractical to rely on exact numbers in answer key as a benchmark during the grading process. To contend with this problem, a grader resorts to personal judgment to assign grades.

#### **4. A grading problem related to chain linking mistakes commonly occurs when grading a financial model.**

That means a calculation error in one calculation may result in errors on subsequent cells which obtain their numbers based on calculation directly or indirectly linked to the erroneous cell. This unfairly punishes the candidate and may cause the candidate to fail in the examination. It is unfair to judge a candidate to be incompetent only because of mistakes in some spreadsheet cells.

## **5. Most candidates are very attuned to specific industries they cover and not on the others.**

A case study in a specific industry or sector may cause candidates who are insiders to such industry to prepare a better model than candidates who are outsiders or unfamiliar with such industries. The familiarity of the grader also matters. Graders may be unfamiliar with the sector chosen by the candidate or have an insufficient understanding of the business process of the company covered by a candidate, and as a result, provides a biased grade.

## **6. Cheating or plagiarism is a serious problem which causes inaccurate assessment of the competency level of a candidate.**

A candidate may be able to obtain the work of other candidate or other people through means of illicit communication, copying, modifying other people's work or by theft. The candidate may also obtain or purchase financial models from the internet or assign someone else to do the job. All the candidate has to do next is doing some minor brush up to make the model appear authentic. Even the most experienced grader may find it hard to detect such infringement. Plagiarism problem is a real challenge. If there is no sufficient measure is taken to avoid this problem, the whole examination process is questionable indeed.

# How PFM Computer Practice Examination is Structured to Solve Problems in Conducting Spreadsheet Based Examination

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## 1. Design of PFM Program

IFMI understands that the credibility of a certification program, among other things, is affected by the quality of the examination process. There are steps taken to avoid the problems mentioned earlier, especially on the Computer Practice Examination and ensure the credibility of the PFM Examination.

First of all, the design of the program matters. PFM is never given freely to anyone. Everyone must pass an examination in which a candidate will only pass if the candidate possesses adequate competence to master the exam. This practice is following an understanding that someone's name is a precious property.

To have something such as a designation placed behind someone's name, the designation should have a value which enhances the brand equity of the person. Giving a title or designation to someone just because the person pays a sum of money or attend short training will degrade the designation into gimmick worths nothing more than a souvenir of no professional value.

## **2. Adherence to Global Certification Standard**

PFM Program adheres to professional certification standard based on ISO/IEC 17024 to ensure that the whole process, including the grading process, must uphold impartiality and fairness to each candidate.

To prove that the whole process is conducted in high-quality manner, PFM Program receives accreditation by globally reputable accreditors. Accreditation acts as a token of assurance to Designation Holders and stakeholders on the quality of the certification process.

## **3. Innovative Procedure when Conducting PFM Computer Practice Examination**

PFM Examination is only conducted in certain premises and test centers on a specific date, supervised by functions acting as IFMI representatives called invigilator and proctor. Given the complexity of administering the PFM Computer Practice Examination, the number of supervisors involved is adjusted to the number of candidates. Procedures are enacted to ascertain that the examination process can be strictly controlled and monitored.

During the examination, a process is undertaken to ensure the integrity of the exam and reduce cheating. The examination instruction and possible sanction are announced to deter candidate from conducting infringement. Several layers of checking, which includes photo cross-checking is performed to verify that the person attending the examination is the same person registered in the examination database.

The examination spreadsheet is protected in such a way that each candidate receives a spreadsheet with unique secret codes embodied in it. The unique code is developed for each candidate by using a random generator software. The code is then scattered in the exam spreadsheet file.

If a candidate's spreadsheet loses its codes or bears other candidate's codes, his/her examination status is pending, and an investigation will be conducted which may result in the disqualification of the candidate from PFM Examination or other disciplinary action deemed necessary.

#### **4. Standardization of Answer Spreadsheet Format**

To conduct an examination which is fair and impartial for everyone, the format of the examination spreadsheet template is standardized based on the format commonly used during PFM preparation delivery. The template for spreadsheet has been provided, meaning the candidate does not need to prepare its own format from scratch. This significantly reduces the potential for subjectivity. Candidate only needs to fill the cells marked as blank (marked as white color) with appropriate spreadsheet formula.

The number of lines containing the answer cells in each worksheet may vary. One sheet may have only eight lines to be answered while the other may have more than forty. Each correct line is given 1 score. Grading is based on how many cells and rows contain the correct formula. For example, if a specific sheet has 25 lines to be filled and the candidate is right on 18 of them, the candidate receives 18 points from that sheet. Graders may provide a partial score for certain answer lines based on the grader's discretion.



The total correct number of points from all of the sheets in one section is added and compared to the total number of line answers for the sheets the particular section. Then, the result of each section is weighted to arrive at the total score for the computer practice examination.

In Million Local Currencies					
FILL IN THE ROWS WITH LINE NUMBERS AND ONLY FILL IN CELLS WITH WHITE BACKGROUND. USE					
	Line No	2017A	2018E	2019E	2020E
Net Revenue	1	2,727.490			
Cost of Goods Sold	2	1,383.562			
Gross Profit	3				
Non Depreciation Expense	4	548.383			
Depreciation	5				
Operating Profit	6				
Other Income (Expense)	7				
Interest Income on Cash	8				
Interest Income from Marketable Securities	9				
Income from Disposal of Assets	10				
Dividend Income from Investment	11				
Gain (Loss) from Investment	12				
FX Gain or loss	13				

### The Format of Answer Sheet

Currently, there are three sections to be completed in PFM Computer Practice Examination with the weighting as follows:

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|------------------------------------|-----|
| 1. Section 1 Financial Projections | 50% |
| 2. Section 2 Valuations            | 20% |
| 3. Section 3 Analytics             | 30% |

The passing rate for Computer Practice Examination is 60%.

Based on the methodology above, many parts of the potential subjectivity is resolved. By standardizing the examination sheet and requiring grader to check each answer line and score accordingly, a grader will be much more objective in assigning a score.

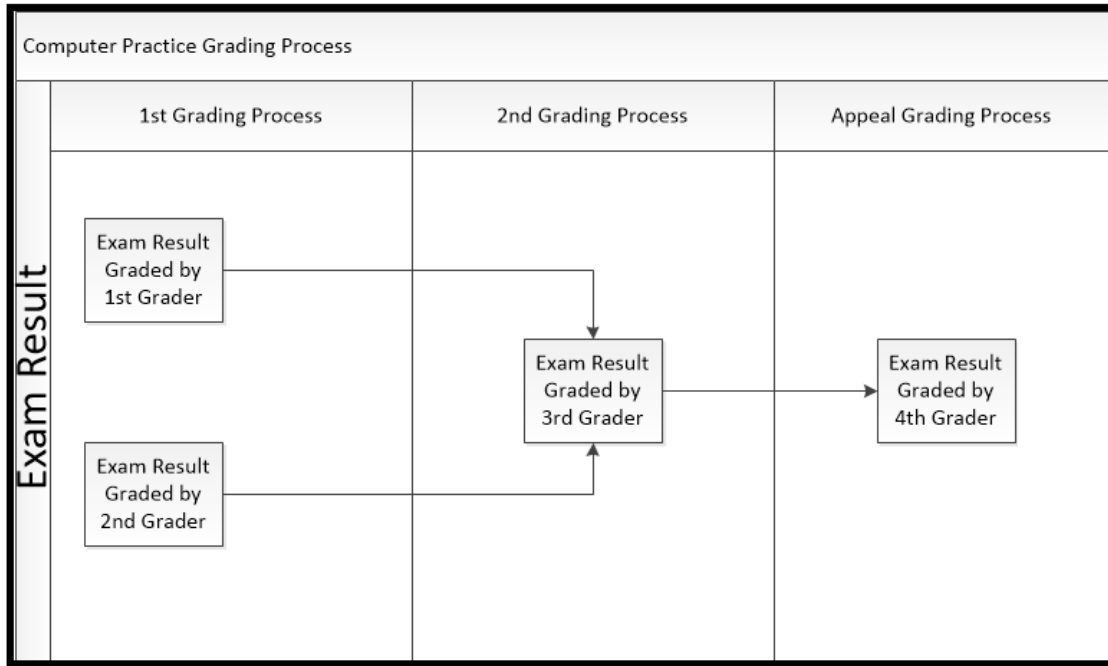
By designing the examination spreadsheet by using a standardized template, objectivity is more assured. The grader has no issue with unfamiliarity with a model submitted by a candidate. All aspects of the model can be assessed thoroughly.

Moreover, the design enables the achievement of the goal to maximize the learning process and enhance the retention rate of candidate knowledge. The candidate is forced to understand in great detail on how to prepare the model to face such examination.

The examination problem is structured to cover all the learning objectives which is tested. Hence, PFM Computer Practice Examination is part of the learning process and not merely to show the result of the learning process.

## **5. Fair and Impartial Grading Process**

The grading process of PFM Computer Practice Examination is designed in such a way to promote impartiality of the process. A procedure is developed and progressed to achieve such a goal.



### PFM Computer Practice Grading Scheme

One of the procedure is through the appointment of 2 graders for each candidate. The graders are selected based on specific criteria. The candidate answer file is encoded by using randomly generated code by using a computer program in such a way that the grader does not know the identity of the candidate.

A strict procedure is also in place to minimize the possibility of a candidate knowing the identity of his/her graders. This procedure is enforced to reduce the potential for subjectivity and fraudulent act.

The scoring results of two graders for a candidate are averaged. The result of the score average will whether a candidate passes or fails.

A third and final grader will be appointed if the average grading results of the two graders fall into these categories:

- a. the grading result of the two graders brings conflicting conclusions (one grader grades as a fail and one grader grades as a pass), the result is deemed bias and cannot be used.
- b. the average grading result is between 55 – 59.99 means there is a possibility that the graders may make grading mistakes which may cause the candidate to be unfairly disadvantaged.

The third grader will re-grade the candidate result, and the grading result is then considered final.

The performance of each grader is also assessed from time to time to ensure the quality of the grading process,.

If a candidate feels that he/she has been mistreated during the examination process, the candidate may choose to submit an appeal or complaint. During the appeal process, all his/her work will be regraded. The computer practice examination result will be regraded by a fourth grader where the outcome is final. As for the complaint process, any submitted complaint must be resolved by IFMI within a limited time frame. Besides, all graders must submit exam score directly via website access where the result cannot be interfered to altered.

## **6. Issuance of Merit Certificate to Eligible Persons**

Let's face it this way: as a vocational examination, PFM Computer Practice Examination is tough. A candidate is given 5 hours to complete a full set of standardized a corporate financial model with than 15 worksheets to fill. This exam format is tough even for the experienced modeler. However, those who have completed the model will gain new experience and understanding of financial model and this experience will forever change the perception of the person when preparing a model in daily life.

To bring reward to the candidate on the effort to complete the examination, IFMI provides an additional certificate as a token of appreciation to those who have completed the whole set of financial model spreadsheet during the examination. Completed means all the blank cells that need answer has been inputted. The Merit Certificate is issued in the condition that the candidate passes the computer practice examination.



### Design of Merit Certificate

The goal of issuing Merit Certificate is to motivate a candidate to push beyond limitation and develop a new perception that it is possible to complete such a challenge.