Faculty of Public Health

Of the Royal Colleges of Physicians of the United Kingdom

Working to improve the public's health

Changes to standard setting arrangements from January 2017

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Key points

- Changes agreed with the GMC make no difference to preparation by candidates for this examination.
- A modified Angoff approach to standard setting will be implemented for all examinations from January 2017 forwards.
- Examiners will now set questions with a clear mark scheme where they set out what is required to achieve 1 mark, 2 marks, 3 marks etc.
- This technique means each and every question has its own pass mark. This may sit at 50% (as before) but for questions considered 'harder' it will be lower, and for questions considered 'easier' it will be higher.
- Each paper's overall pass mark is the sum of each question's standard set pass mark.
- The overall pass mark for each paper may be above or below 50/100 depending on the overall ease or difficulty of the exam questions (as judged by our standard set group).
- Basic rules on passing each paper remain the same (noting that pass marks now vary).
- Candidates will now be issued with both the marks they obtained for each question AND the standard set pass mark for each question.
- Whilst January 2017's paper will be published in full with answers and marking guidance used, from June 2017 this will no longer occur as we intend to develop a closed bank of questions.

Background

The GMC have recently concluded a review of our Part A exam and have agreed our plans to introduce modified Angoff standard setting, to be implemented from January 2017. This is a very common and well-respected form of standard setting as applied to written exams. Many other medical schools and Royal Colleges use this approach for their undergraduate and postgraduate examinations. The Angoff method was first described by William H. Angoff in 1971. The approach is described as 'modified' because of the additional process of reviewing the standard if there is disagreement between standard setters. This is common practice when using this technique for standard setting written examinations.

It is very important that candidates are clear that this approach does not alter the way they should prepare for this exam, nor does it alter the approach that they take to answering the questions that we set.

Introduction of Angoff standard setting to Part A

To undertake Angoff standard setting, exam questions must include a detailed mark scheme setting out what candidates need to do achieve each particular mark (i.e. for one mark candidates must include X; for 2 marks they must include X and Y...).

Angoff standard setting requires an understanding of borderline competence. This is a candidate who 'sits' on, or immediately around the minimal level of competence for this stage of training. This is not the same as the level of a 'good' candidate, or even a 'clear passing' candidate. All standard setting requires some agreement of what this minimal competence is, and standard setters must keep this 'fictional' candidate in mind when carrying out standard setting.

Angoff standard setting involves a panel of 'judges' (standard setters) to consider each question and judge what proportion of minimally competent candidates would answer that question correctly. This is relatively simple when applied to an MCQ, but needs some modification when applied to our short answer questions. For short answer questions, standard setters are asked to consider what mark (e.g. out of 10 for paper I) a borderline competent candidate will achieve. These marks are then collated across all standard setters and the average is calculated. That average is the pass mark for that question. Occasionally, when standard set marks are reviewed there is clear disagreement between standard setters as to the 'difficulty' of a question. Where that occurs a discussion is held between standard setters to elucidate the reasons for the disagreement. Standard setting is then repeated until reasonable agreement is obtained. For our purposes, we consider too much disagreement to have occurred if the standard deviation of the standard set mark is more than 10% of the marks available for that question, i.e. >1 for questions out of 10).

Determining each paper's pass mark

The pass mark for any paper is arrived at by summing all the individual pass marks for each question. Pass marks in the past were fixed at 50%. With Angoff standard setting, pass marks may be above 50% (where the paper is deemed relatively easy) or below 50% (where the paper is deemed relatively hard).

Rules on passing or failing an individual paper

Rules on passing or failing overall remain the same as currently, with the exception that the pass mark for each paper may no longer be 50% as stated above (see figure below).

The Exam board will meet and consider all marks and all candidates as currently occurs.
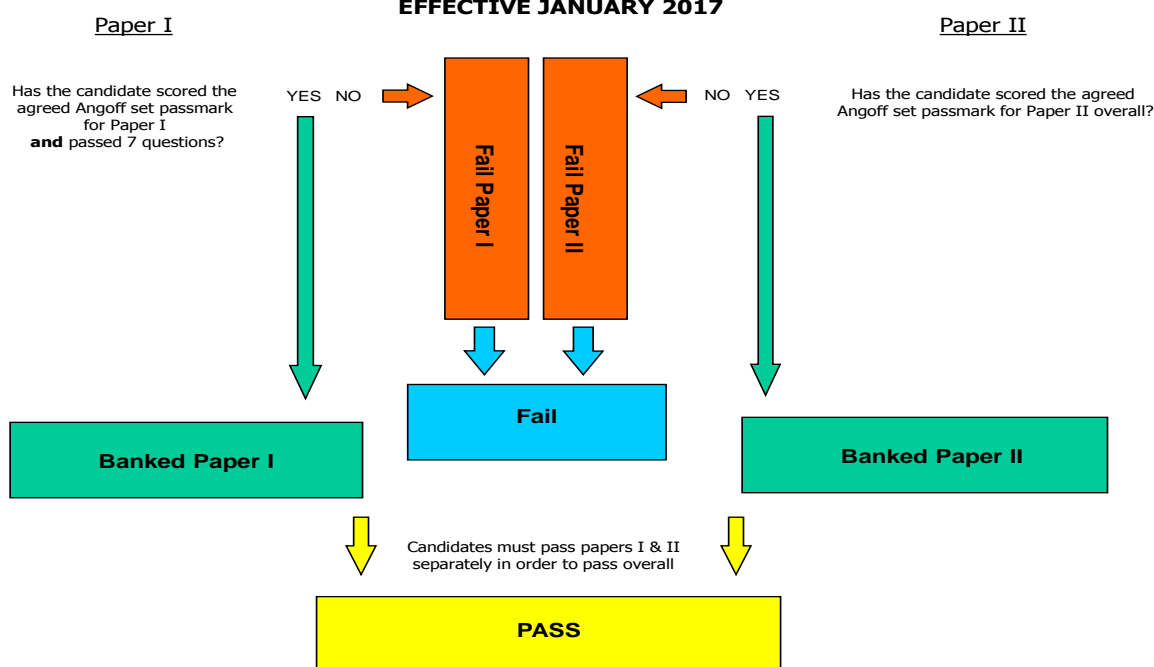
Candidate feedback

As candidates will no longer know what the pass mark is for each question (or overall), feedback letters will be changed to include candidate's individual scores on each question and the pass mark for each question. For Paper IA and IB, candidates will receive the question mark and the pass mark for that question but these will not be broken down by any question's sub-section. For Paper IIA, candidates will receive their global score out of 50 with the pass mark out of 50. For paper IIB, candidates will receive their marks on each question and the pass mark by question.

'Closing' the Exam

Whilst January 2017's exam will continue to be published in full on the Faculty website (as will the previous 5 years of exams), it is intended that from June 2017 exam papers will be kept confidential and will no longer be published with the answers. This is so as to allow the Faculty to build up a bank of high quality questions which have demonstrated that they 'perform' well in an exam. There will always be a need to produce new questions and exam papers will always be a 'mix' of new and re-used questions, but moving to a closed bank will, over time, enhance the overall quality of our exam. Closing the exam should also give examiners more time to develop formative (preparation) material to be available to candidates. This would be particularly useful for Paper IIB.

PART A MFPH EXECUTIVE GROUP EXAMINERS' CHECK LIST
— MARKING ALGORITHM —
EFFECTIVE JANUARY 2017

Paper I

Has the candidate scored the agreed Angoff set passmark for Paper I **and** passed 7 questions?

YES NO

Fail Paper I

Fail Paper II

NO YES

Paper II

Has the candidate scored the agreed Angoff set passmark for Paper II overall?

Fail

Banked Paper I

Banked Paper II

Candidates must pass papers I & II separately in order to pass overall

PASS

Below is a summary of key points and changes occurring as a result of implementing modified Angoff standard setting. It is worth noting that all our Part A exam processes are now overseen by an external assessment expert.

Full summary:

1. Changes agreed with the GMC make no difference to preparation by candidates for this examination.
2. Over time it is anticipated that there will be fewer questions in Paper I which involve 'long' short answers for all 10 marks available. Questions will increasingly be broken up in to two, three or (rarely) more parts.
3. A modified Angoff approach to standard setting will be implemented for all examinations from January 2017 forwards.
4. Examiners will now set questions with a clear mark scheme where they set out what is required to achieve 1 mark, 2 marks, 3 marks etc.
5. Examiners will form our standard setting group and have been fully trained in Angoff standard setting.
6. Standard setting of each exam paper will occur each year.
7. Standard setting means each question is considered by each standard setter.
8. Standard setters are asked to judge how much they believe a 'borderline competent Part A candidate' will attain on each question.
9. The mean value of all standard setter marks forms the pass mark for the question.
10. Where standard setter marks differ markedly between setters, these are discussed and the process repeated until reasonable agreement as to standard set pass mark is reached. [In practice, this means until the standard deviation across standard setters' marks is no more than 10%].
11. This technique means each question has its own pass mark (the mean of each standard setters mark for that question). This may sit at 50% (as before) but for questions considered 'harder' it will be lower, and for questions considered 'easier' it will be higher.
12. The sum of these mean values forms the pass mark for each paper.
13. The overall pass mark for each paper may be above or below 50/100 depending on the overall ease or difficulty of the questions (as judged by our standard set group).

14. Basic rules on passing each paper remain the same (noting that pass marks now vary):
    a. candidates must achieve the overall pass mark for Paper I, and pass 70% of questions in Paper I
    b. candidates must achieve the overall pass mark for Paper II
15. Examiners will mark each question 'blind' to knowledge of the standard set pass mark.
16. After first marking, examiners will confer in knowledge of the pass mark and agree each candidate's final mark for that question.
17. As now, all marks will be finalised and agreed at the Exam Board
18. Candidates will now be issued with both the marks they obtained for each question AND the standard set pass mark for each question.
19. Exam feedback will continue to be provided for the performance of the cohort of candidates as a whole with key advice for future candidates.
20. Whilst January 2017's paper will be published in full with answers and marking guidance used, from June 2017 this will no longer occur as we intend to develop a closed bank of questions (in line with most other Royal colleges).
21. 'Closing the bank' should allow us to increasingly ensure use (and re-use) of high quality questions, but there will always be a need to develop new questions.
22. A minimum of 5 years of past papers will be maintained on the Faculty website as revision material.