## THE INSTITUTE OF CARPENTERS



# 2007 Examinations Report

**Examination Board Chairman** 

Chief Examiner

Mr D. Riley MIOC

Mr C. R. Tooke FIOC

Registrar

Mr D R Winson FIOC

#### Introduction

After the completion of the 2007 May/June examinations, the Institute has published this year's report based on the candidates' achievements and the comments from the Examiners on how each question was answered, as well as comments on the respective practical tasks.

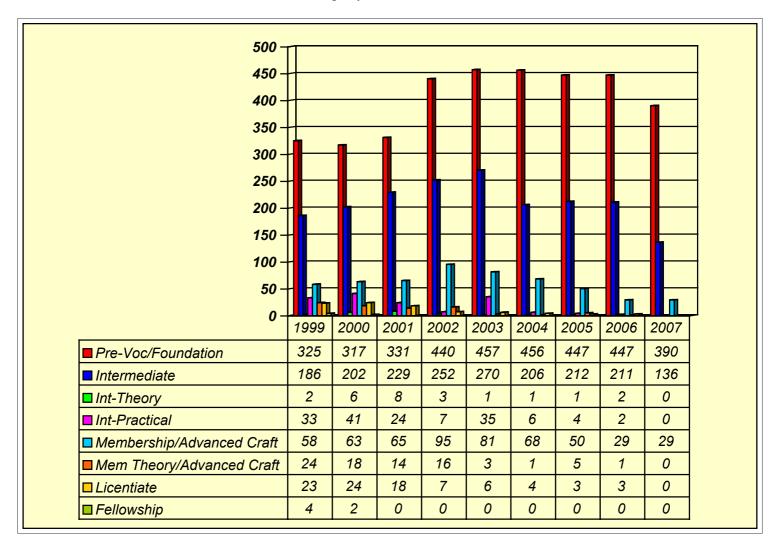
The syllabus for each examination is designed to cover all the current topic areas contained in NVQ/ICA/SNVQ courses, which most candidates are following at their respective colleges/centres. Students who enter the examinations must be aware that additional topics are contained within the Institute's current syllabus (copies available on the website), **which are not** included in the NVQ/ICA/SNVQ units.

As stated in previous examination reports, this was again evident in questions which required a good understanding of geometrical principles and general sketch drawing. Candidates still have difficulty in illustrating answers with clear and accurate details of components, diagrams, plans and elevations. This may be because technical drawing is limited in some Colleges/Centres.

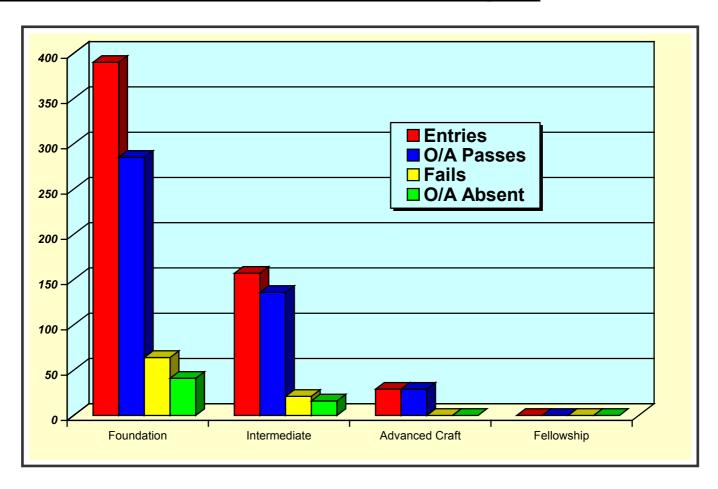
Furthermore, it has been noticed that many candidates taking the Institute's examinations each year have limited knowledge of a number of these additional topic areas. Candidates **must** therefore be encouraged to undertake self-study to enhance their knowledge prior to taking the Institute's examinations as well as Colleges/Centres teaching these additional subjects.

All the examinations past papers are available for revision, on the website www.iocexams.co.uk

Below is an indication of the number of entries per year from 1999.



#### Number of entries in 2007 for each exam, and the number of passes.



The diagram above shows the total number of entries for the 2007 examinations, which was **555.** Indicating again, a drop in overall entries (- 140) compared to the figure of **695 for 2006**.

The total entries for Foundation examination had remained fairly stable over the past few years, but 2007 shows a drop of 14.5% to 390 which is disappointing. The Intermediate also shows a drop of 5.5% to 136 for 2007, but entries for the Advanced Craft remained the same as last year at 29. This may be good news but as recently as 2002, there were 95 entries – a drop of around 70%.

The Examination board is aware that funding for running IOC courses/examinations has recently become more difficult and confusing with some local LSC's (Learning and Skills Council) withholding financial support, particularly the Intermediate examination. However, it is hoped to resolve these problems in the near future and information will be available via the website on funding IOC examinations.

Colleges/Centres are informed that students who were unsuccessful in the Advanced Craft or Intermediate examinations, or who wish to gain full membership status may enter the December examination. The Foundation examination is available in February and May.

Contact the Examinations Registrar, Mr David Winson.

There were no entries received for the Fellowship Examination.

It is imperative that colleges/centres ensure that completed entry forms for any of the Institute's examinations arrive at Central Office before the closing date for entries. (Exam dates are available via the website)

Additionally, practical mark sheets, and completed theory papers need to be received as soon as possible after the examination. Postponement can lead to a candidates results being delayed.

Further information on running any of the Institute's examinations can be obtained through Central Office.

#### **Foundation Examination**

This examination was the first of the 2007 series with the Practical element being held between the 21st to 25th May and the Theory paper on 23rd May.

The three practical assignments, which are set by the Institute and marked at the centres, were replaced by two new assignments with the third assignment giving the candidates a choice between the original drawer (joinery) and a small gable roof (site).

The new assignment 4, includes a corner halving, tee halving, dovetail halving and stopped mortise and tenon joints.

The new assignment 5, is a small frame with a haunched mortise and tenon, mitred halving joint, bridle joint and through mortise and tenon joint. Included also was the forming of a rebate on one stile and a groove on the bottom rail.

The final assignment offered the candidates is a choice between a small drawer with a rebated false front, or a small gable-end roof. The roof required the students to set-out a simple front elevation to obtain the true lengths and bevels for the six common rafters.

There is no time limit on the tasks but they need to be completed within one academic year. They have been generally accepted well by the centres as a welcomed change and challenge.

The number of passes in this examination was higher than in 2006, at 81.66%.

The practical job this year was a small frame consisting of a haunched mortise and tenon joint, through mortise and tenon joint with long and short shoulders, bridle joint and stopped mortise and tenon joint. The top rail was required to include a rebate and the base of the left stile to be rounded.

The response from the centres indicated that the practical tasks are sufficient but in one case demanding for some students with the time set very tight.

The Foundation May 2007 theory paper is available from the web-site www.iocexams.co.uk

The examiners comments relating to the theory paper questions are as follows:-

- Q1. Majority of candidates gave the correct answer to this question.
- Q2. Good answers given overall.
- Q3. Most gave good answers.
- Q4. Reasonable good answers given.
- Q5. Just over 50% achieved the correct answer.
- Q6. Most candidates answered part "A" reasonably well. Part "B" proved to be difficult for many as they did not know how to check a spirit level using recognised methods.
- Q7. Majority of candidates gave an incorrect answer to this problem due to placing the decimal point in the wrong place. Only a few achieved the correct answer.
- Q8. Good answers given.
- Q9. Most candidates did not attempt this question with only a few given the correct joint.

- Q10. Most candidates gave the correct answer.
- Q11. Good answers overall, a few gave hardwoods instead of softwoods.
- Q12. Reasonably good answers.
- Q13. Good answers given.
- Q14. Many had problems identifying the Muntin. The majority, however gave good answers to this question.
- Q15. Some good clear sketches. Many of the sketches could have been better by showing the joint details more clearly.
- Q16. All candidates gave good answers.
- Q17. Many candidates did not attempt this question at all. A few managed to get one or two parts correct. Only a few achieved full marks.
- Q18. A number of candidates had little knowledge of the use of contact adhesives. Only a few gave the correct answers and were aware of the safety precautions.
- Q19. The majority of the candidates answered this question correctly.
- Q20. Good answers. Three candidates achieved 70% for this question, the rest 100%.
- Q21. Majority selected the correct type of nail.
- Q22. Most candidates identified at least two of the joints illustrated.
- Q23. Majority of the candidates stated that the "Water Bar" is used for levelling. A few gave the correct answer. Overall, poor answers were given with many candidates not understanding the function of a water bar.
- Q24. One or two candidates had problems with this question, having difficulty identifying the parts of the tree listed. However, the majority gave reasonably good answers.
- Q25. Good answers given overall. A few misunderstood the question and described adjustments to the various screwdriver bits and countersinks
- Q26. Poor answers and sketches to this question. Many candidates did not attempt it. Others produced poor sketches and suggested using nails and screws.
- Q27. A few good answers but the majority ranged from satisfactory to poor. Many had little knowledge of the other trades in the construction process.
- Q28. Many of the sketches were poor and untidy. A few did not indicate the type of roof drawn. However, a few gave good clear sketches and indicated types correctly to achieve full marks.
- Q29. Only nine candidates answered correctly. The majority gave woodworm as an answer. Overall poor.
- Q30. Reasonably good answers.
- Q31. Only a few candidates managed to gain full marks for this calculation. Many went wrong due to not knowing the formula for calculating the area of a triangle.

- Q32. Many answers gave the ratio rather than the angle required. Some sketches could have been better.
- Q33. Only a few gave good answers, overall the descriptions were brief and not to the point. Many did not read the question carefully describing the use of portable sanders, when hand sanding was asked.
- Q34. Majority gave good reasonable sketches of the hinge and selected the correct type of door on which it was used. However, a few did not read the question carefully and stated it could be used on a gate when a door was specified.
- Q35. Correct answers given by the majority of candidates.
- Q36. Good answers and sketches given, however, many were unsure which defects were natural or due to shrinkage.
- Q37. Good answers given overall.
- Q38. Many of the candidates did not show any sketches, those who did were generally poor. The choice of joint by some candidates for part "A" was either a mortise and tenon or dovetail joint.
- Q39. Poor sketches overall, only a few gave reasonable sketch indicating the pre-boring.
- Q40. A number of candidates gave answers relevant to the jointing of skirting rather than fixing. Most suggested nails but failed to state the use of "masonry" type opting for ordinary wire or pins.

#### The Intermediate Examination

The Intermediate examination took place during the week of 11th to 15th June and consisted of a practical and theory paper. The practical task allows the students a choice between site work or bench work.

*Carpentry task* – required the candidates to construct part of a floor with trimming for an access hatch. Also included were a tusk tenon, and herring-bone strutting.

One comment relating to the site practical, stated that it was an excellent and challenging job – well timed. However, mouldings to architrave were not included on the mark sheet and marking of fixings was confusing (e.g. lining  $(10 \times 1)$ ).

**Bench Joinery task** – involved the production of a borrowed light and sash.

Overall most students completed within the time.

The Intermediate June 2007 theory paper is available from the web-site www.iocexams.co.uk

The examiners comments relating to the theory paper questions are as follows:-

- Q1. Good answers given by all candidates.
- Q2. Only six candidates gave the correct answer. The rest failed to show the sill being cast upside down along with correct construction details.
- Q3. Good answers given overall.
- Q4. Answers given were generally good. Some of the sketches were not very clear and a few of the candidates had difficulty in describing the correct position of the Riving Knife in relation to the direction of the cut. Very poor sketches for part "A". Part "B" generally well answered.

- Q5. Good answers achieved overall. A few had difficulty in describing clearly how they can be identified on site
- Q6. Majority gave good answers to part "A" but a few had problems with part "B" with reference to proportioning of the joint.
- Q7. Correct answers given by the majority of candidates. A few were deducted 1 mark for not indicating m<sup>2</sup> in their answer.
- Q8. Reasonably good answers given with a few candidates achieving full marks. Most selected the correct defect, but due to poor sketches, many lost marks for this question.
- Q9. Good answers overall showing correct method of fixing the sliding door. However, a few failed to show any adjustment for the aligning of the door. Some sketches could have been better.
- Q10. Overall the answers given were reasonably good although one or two had trouble with explaining the testing of a spirit level.
- Q11. Sketches could have been better proportioned, a few did not keep the fascia tight to the brickwork. Others did not show the ceiling joists supported on the wallplate. Satisfactory answers given overall.
- Q12. Majority of candidates gave good answers and sketches. A few however could have improved the quality of their sketches by using a ruler to obtain a straight line.
- Q13. A few candidates gave good answers with the rest giving answers ranging from poor to satisfactory. Many had problems with the terminology for the component parts of the door frame illustrated. Also many were confused with sawn and finished sizes, entering the dimensions of the components in the wrong columns.
- Q14. Many candidates had problems with this question, nevertheless, most managed to give the correct answer to Part "A" but Part "B" was the problem. Many repeated the answer they gave in Part "A", whilst the rest stated that "pot-life" referred to how long the glue/adhesive lasted once the lid was removed from the container rather than how long it remained workable once mixed.
- Q15. Some good answers given however, many had difficulty in bisecting lines accurately with quite a few guessing the centre point. A good sharp pencil and compass lead would have improved the accuracy of their drawing.
- Q16. Most gave satisfactory answers to this question. Only a few were able to answer all correctly along. Some were unable to identify any of the parts illustrated.
- Q17. A few good sketches giving clear and correct details of the vertical section through the stairwell. Many gave a section through the complete staircase with poor sketches making it difficult to understand.
- Q18. A number of candidates needed to read the question carefully as they proceeded to give answers with regard to the fixing, rather than the jointing of the boards. However, most gave a satisfactory answer overall.
- Q19. Reasonably good answers given to this question.
- Q20. At least six candidates did not attempt this question. Only a few managed to show the correct section and details asked for. Poor answers overall.

General comment from all examiners – Poor sketching throughout led to loss of marks.

#### **Advanced Craft Examination**

The Advanced Craft theory examination was taken on 13th June, with the practical examination between 11th and 15th June, and is offered to successful candidates who wish to become full members of the Institute.

The theory paper is made up of parts "A" and "B" to be completed in a period of 3 hours. Paper "A" has a total of 18 questions with part "B" consisting of 8 questions with only 4 needing to be attempted.

The practical paper gave candidates a choice between a Joinery practical or a Carpentry practical, both with a time period of 7 hours.

The Joinery paper this year was the setting-out and construction of a small gate with shaped top rail. Comments from centres included "A difficult piece which fully extended the candidates".

The Carpentry task involved the setting-out and construction of a segmental arch. Comments from centres included "A good clean piece of work, not 7 hours work perhaps".

"The rise of the arch centre was confusing on the drawing, not demanding enough for the students".

#### The Advanced Craft June 2007 theory papers are available from the web-site www.iocexams.co.uk

There were a total of 29 students entered for the Advanced Craft examination who had to complete paper A and choose 4 questions from paper B relating to their own area of either carpentry or joinery.

The examiners comments relating to the theory paper A questions are as follows:-

- Q1. Most candidates could only identify brickwork, wood grain and sawn timber.
- Q2. Fairly well answered, number and shape of string tenons poor.
- Q3. Most candidates were successful with this question but with slight variations.
- Q4. Poor sketches, lack of knowledge with regards to sprocketed eaves in roof construction.
- Q5. Good answers throughout.
- Q6. Some good answers and sketches, many did not understand what a "Framing Anchor" was used for. Some poor sketches.
- Q7. Very good answers many attempted this question.
- Q8. Part "A" fairly good answers. Part "B" Very poor hardly any correct answers.
- Q9. Poor sketches, lack of knowledge regarding sizes.
- Q10. Fairly good answers, good knowledge of machines and their uses but lack of sequence of operations.
- Q11. Fairly good but lack of knowledge with regards to "Schedules".
- Q12. Very good answers and most were successful with this question.
- Q13. Some candidates had a knowledge of all types of shoring. Some good and poor sketches.
- Q14. Most answered correctly some poor sketches.

<sup>&</sup>quot;Too easy for students at Advanced level".

- Q15. Good answers, and knowledge of safety precautions.
- Q16. Most candidates had a good understanding of the types of adhesives available and with regard to quality of bonding and shelf life and pot life.
- Q17. Most candidates answered this question correctly and gave good sample situations.
- Q18. Fairly good answers, but some poor sketches.

Part B consists of 8 questions and were as follows including some examiners comments:-

- Q1. Section through an open-well stair. Attempted by 3 candidates
- Q2. Storing roof trusses. Attempted by 23 candidates

The candidates gave reasonable answers to most parts of this question. Some sketches were brief and difficult to follow. Some did not include any sketches at all relying on a descriptive note to answer the question. However, most displayed a reasonable amount of knowledge regarding roof trusses.

- Q3. Laminated plastic sheeting and adhesives, bonding etc. Attempted by 10 candidates
- Q4. Calculating surface area. Attempted by 24 candidates

Most of the candidates answered this question reasonably well with a few achieving the correct answer. However, quite a number had difficulty in calculating the area of the semi-circular head of the door opening. As a result and incorrect total was recorded causing a knock-on effect to the overall total outcome of the full sum. Other problems could have been avoided if the candidates had put their answers down in a chronological sequence as they worked through their calculation.

Q5. Portable power tools. Attempted by 24 candidates.

Overall, good answers and marks were obtained by candidates.

- Q6. Formwork to concrete columns. Attempted by 1 candidate
- Q7. Double action doors to Bank entrance. Attempted by 4 candidates.

Only one candidate provided reasonable sketches and answers. Lack of understanding of double action doors and ironmongery.

Q8. Upper floor construction. Attempted by 22 candidates.

Part "A," the majority of the candidates drawings were accurate in scale and dimensioning including the arrangements of the joists. However, many did not identify the individual joists or give their correct sectional sizes. Also many did include the strutting on the plan.

Part "B" Most of the answers to this part of the question were reasonably good with clear annotated sketches. Overall answers were reasonably good with the exception of one or two.

#### **Fellowship Examination**

The Fellowship examination is offered to candidates who usually wish to upgrade from Member level. However, in some circumstances the Fellowship award can be offered to candidates at the discretion of the Examination Board. The examination consists of two theory papers only. The first paper is compulsory, and is entitled "Organisation and Supervision", and deals with workshop and site skills of the Foreman/woman. With the second paper the candidate has a choice between Carpentry and Joinery. All papers contain 8 questions which require only 6 to be answered within a period of 3 hours each. The examination was available between 11th and 15th June; unfortunately there were no entries again this year.

## **May and June 2007 Prizewinners**

## Congratulations and well done to all the prize winners.

## **Foundation Examination**

Basingstoke College	Paul Benford	07FM003	1st (Endorsed Certificate)
Basingstoke College	Steven Marks	07FM008	2nd (Endorsed Certificate)
Cheam High School	Christopher Murray	07FM290	3rd (Endorsed Certificate)

### **Intermediate Examination**

Chesterfield College	Thomas Sparkes	07IC040	1st £50 plus Endorsed Certificate
Chesterfield College	Leslie Birds	07IC031	2nd £35 plus Endorsed Certificate

### **Advanced Craft Examination**

Thames Valley University

Christopher Neville 07ACC021

Highest o/a Theory & Practical marks in the Advanced Craft Examination.

£50, Endorsed Certificate plus Medal.

College awarded Advanced Craft Examination Shield.

Chesterfield College

Leslie Hogan 07ACC004

2nd highest o/a Theory & Practical marks in the Advanced Craft Examination.

£35 plus Endorsed Certificate.

Thames Valley University

Christopher Neville 07ACC021

Highest Theory mark in the Advanced Craft Exam.

Endorsed Certificate plus Medal.

Alf Emary Cup Awarded to College.

Thames Valley University

Paul Wilson 07ACC027

Highest Practical marks in the Advanced Craft Examination.

Endorsed Certificate plus medal.

Ken Ken Hewett Shield Awarded to College.

#### **Summary**

Once again the results and comments have shown that it is clearly obvious that a number of points certainly **still** need to be improved.

The majority of candidates who entered the Institute's exams certainly need to be more prepared for entry. More emphasis need to be put towards **a better understanding of drawing and geometry** and other subjects not clearly covered in the current NVQ/SNVQ/ICA set-up. Also, timber section sizes, wood machining, calculations and in some cases a better understanding of timber technology etc.

As always the Institute is prepared to support examination centres with regards to schemes of work, suggested practical pieces etc, all of which can be obtained through Central Office, or emailing me through the website if I can be of any assistance.

It's a pity that the number of candidates seems to be going down each year and I would like to ask more colleges to try and enter their students for the Institute's examinations.

Funding is available to colleges (see website for details) who wish to participate in maintaining our qualifications.

## **Theory Paper Examiners**

Mr D Riley Examination Board Chairman

Mr C Tooke Chief Examiner

Mr D Elliot North Western

Mr B Barker Central Section

Mr T Eveleigh Central Section

Mr R Cooper East Midlands

Mr P Burgess East Midlands

A special thanks to all who offered their services in preparing and marking the examination papers.

**Chris Tooke** 

Chief Examiner August 2007

CRtooko

The Institute Of Carpenters Central Office 35 Hayworth Road Sandiacre Nottingham NG10 5LL

Tel 0115 949 0641 Fax 0115 949 1664

Mr D Winson Examinations Registrar

Mrs M Crossland Examinations Liaison Officer