



CONSTRUCTION DRAFT SAMPLE EXAMINATION

Section 7 of the *WACE Manual: General Information 2009* outlines the policy on WACE examinations.

Further information about the WACE Examinations policy can be accessed from the Curriculum Council website at

<http://www.curriculum.wa.edu.au/internet/Communications/Publications/>.

The purpose for providing a draft sample examination is to provide teachers with an example of how the course will be examined. Further finetuning will be made to this sample in 2009 by the examination panel following consultation with teachers, measurement specialists and advice from the courses' advisory committee.



Western Australian Certificate of Education, Sample External Examination Question/Answer Booklet

CONSTRUCTION WRITTEN PAPER

Please place your student identification label in this box

Certificate II in General Construction (BCG20103)

Student Number: In figures

Grid for student number in figures

In words

Lines for student number in words

Time allowed for this paper

Reading time before commencing work:

Ten minutes

Working time for paper:

Two and a half hours

Material required/recommended for this paper

To be provided by the supervisor

- This Question/Answer Booklet
Multiple choice response sheet

To be provided by the candidate

- Standard items: Pens, pencils, eraser, correction fluid, ruler, protractor, highlighter.
Special items: Appropriate plotting and measuring instruments and calculators satisfying the conditions set by the Curriculum Council for this subject.

Important note to candidates

No other items may be taken into the examination room. It is your responsibility to ensure that you do not have any unauthorised notes or other items of a non-personal nature in the examination room. If you have any unauthorised material with you, hand it to the supervisor before reading any further.

Structure of this paper

Section	Suggested working time	Number of questions available	Number of questions to be attempted	Marks available
Section One: Multiple-choice	30 minutes	20	20	20
Section Two: Short answers	120 minutes	8	8	80
[Total marks]				100

Instructions to candidates

1. The rules for the conduct of Curriculum Council WACE examinations are detailed in the *Student Information Handbook*. Sitting this examination implies that you agree to abide by these rules.
2. Answer **Section One** questions on the multiple-choice answer sheet provided using a 2B pencil.
3. Answer **Section Two** questions in the Question/Answer Booklet in blue or black ballpoint or ink pen. Wherever appropriate, fully labelled diagrams and examples should be used to illustrate and support your answers.
4. You must be careful to confine your responses to the specific questions asked and to follow any instructions that are specific to a particular question.

SECTION ONE—MULTIPLE-CHOICE

This section contains **TWENTY (20)** multiple-choice questions. Attempt **ALL** questions. Please mark the correct answer as indicated on the multiple-choice answer sheet.

Allow approximately 30 minutes to complete this section [20 marks].

1. By law employers must provide for the welfare of their employees in regards to
[1 mark]
 - (a) a voluntary training and supervision scheme
 - (b) a safe and healthy work environment
 - (c) safe entrances and exits
 - (d) safety and research information relevant to the workplace on an annual basis.

2. What is the responsibility of employees with regard to OSH requirements?
[1 mark]
 - (a) to provide first aid at all times
 - (b) to follow all work cover directions
 - (c) to follow all employer directions
 - (d) to wear personal protective equipment (PPE) as required.

3. Who should an employee first discuss a safety problem with?
[1 mark]
 - (a) general foreperson
 - (b) leading hand tradesperson
 - (c) site manager
 - (d) project manager

4. 'Industrial Relations' is about people and organisations working together for the benefit of
[1 mark]
 - (a) employers
 - (b) specialised trade training
 - (c) employment conditions
 - (d) use of old and new technology.

5. The purpose of planning and organising work is to *[1 mark]*
- (a) make things less stressful
 - (b) order materials only when required
 - (c) work efficiently and safely
 - (d) make important decisions later.
6. Which of the following best describes a work method statement? *[1 mark]*
- (a) the construction of an entire building broken down into stages
 - (b) a sequence of first aid and safe work instructions
 - (c) procedures, hazards and controls
 - (d) instructions
7. Two parties in a conversation can experience barriers in the communication process. What is the most obvious barrier? *[1 mark]*
- (a) physical barriers such as anger and abuse
 - (b) emotional barriers such as aggressiveness and arrogance
 - (c) intellectual barriers such as a person's lack of knowledge
 - (d) psychological barriers such as self esteem, resentment and frustration.
8. When being spoken to in a face-to-face communication situation, you indicate that you have got the message by *[1 mark]*
- (a) occasionally glancing at the person talking to you
 - (b) making eye contact with the person
 - (c) twisting your head from side to side if you don't understand
 - (d) summarising to check your understanding
9. General timber is available in set lengths which have a base increment of *[1 mark]*
- (a) 1 m
 - (b) 300mm
 - (c) 500 mm
 - (d) 250 mm

10. Fabric reinforcement for a concrete slab on the ground is usually placed *[1 mark]*
- (a) about mid thickness of ground floor slabs
 - (b) towards the bottom of ground floor slabs
 - (c) towards the top surface of ground floor slabs
 - (d) about one third from the top of the floor slab.
11. Concrete cover to the reinforcement in soils with ground water present requires *[1 mark]*
- (a) 40 mm cover
 - (b) 50 mm cover
 - (c) 75 mm cover
 - (d) 60 mm cover.
12. The purpose of using a release agent when constructing formwork is *[1 mark]*
- (a) to help formwork absorb water
 - (b) to facilitate the easy release of forms
 - (c) to leave a surface deposit on formwork
 - (d) so concrete adheres to formwork.
13. Screeding is the process of *[1 mark]*
- (a) striking of the excess concrete
 - (b) levelling the concrete
 - (c) finishing the concrete
 - (d) working the concrete.
14. Plywood and particle boards are stacked and stored *[1 mark]*
- (a) flat on top of each board
 - (b) on edge
 - (c) in pyramid sacks
 - (d) separated by packers.

15. Irregular loads which do not have a level base should be

[1 mark]

- (a) tied down on a pallet
- (b) stacked on a pallet first
- (c) stacked on a pallet last
- (d) carried in a cage type pallet.

16. Rubber rollers can be fitted to the plates of some model compactors for use when

[1 mark]

- (a) compacting sand
- (b) compacting brick paving
- (c) compacting concrete
- (d) compacting trench backfilling.

17. The most accurate levelling device operated by one person over a distance of 30 metres is a

[1 mark]

- (a) spirit level
- (b) laser level
- (c) dummy level
- (d) water level.

18. According to the national standard, what is the minimum height of scaffolding where handrails must be erected to prevent a person from falling?

[1 mark]

- (a) 2.0 metres
- (b) 1.8 metres
- (c) 1.5 metres
- (d) 2.4 metres.

19. According to the national standard, what is the minimum height for a toe/fender board on scaffolding?

[1 mark]

- (a) 1.0 metre
- (b) 500 mm
- (c) 400 mm
- (d) 200 mm.

- 20.** Noise and dust have been identified as potential hazards on a work site.
Which is the best method to address these hazards?

[1 mark]

- (a) erect screens and covers
- (b) Use a vacuum cleaner and personal protective equipment (PPE)
- (c) Utilise good house keeping procedures
- (d) Pre-fabricate the project off-site.

END OF SECTION ONE

SEE NEXT PAGE

(b) Calculate the number of pavers required to pave the driveway. Allow 10% for waste such as cutting, breakage, and damaged pavers. Allow 38 pavers per square metre.

[4 marks]

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Question 6

[10 marks]

You are required to pour a concrete floor for a workshop in a remote farming district. The situation on-site is as follows:

- there is no power
- the soil is soft
- the form work timbers need to be cut to hold the concrete when pouring commences
- the concrete needs to be mixed as there are no concrete trucks available
- the concrete needs to be dense as farm machinery will be parked in the workshop.

(a) List and give reasons for each the construction tools or equipment required for the job.

[6 marks]

(b) List the personal protective equipment (PPE) required.

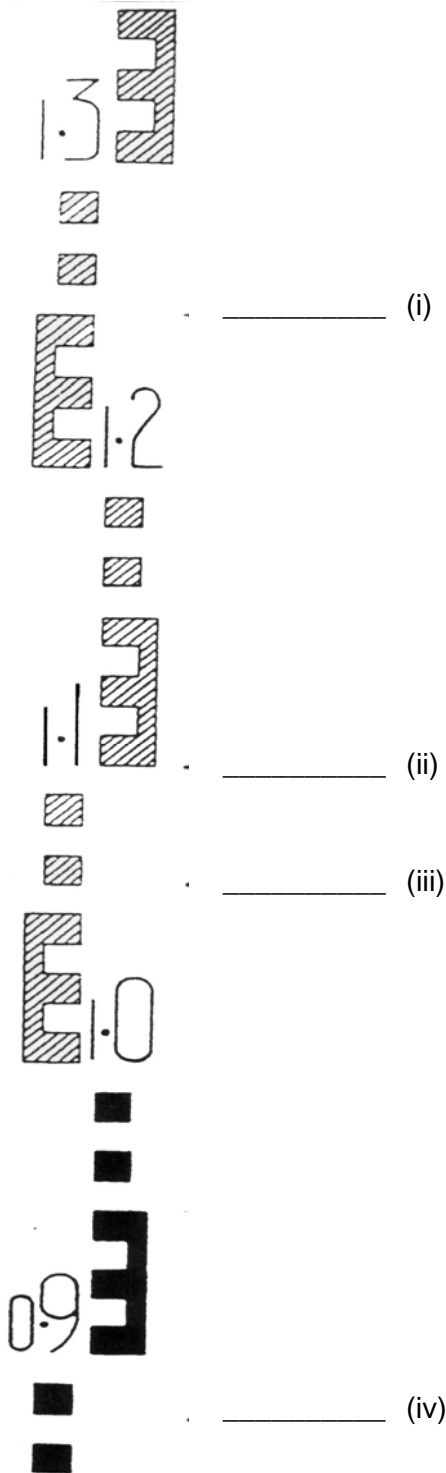
[4 marks]

Question 7

[10 marks]

(a) On the line provided near the staff, correctly write down the measurements.

[4 marks]



Question 8

[10 marks]

(a) Define the term formwork.

[2 marks]

(b) Give an explanation of the four (4) points listed below which are important to good craftsmanship with regard to formwork.

(i) Accuracy

[2 marks]

(ii) Rigidity

[2 marks]

(iii) Tightness of joints

[2 marks]

(iv) Finish

[2 marks]

ACKNOWLEDGEMENTS

SECTION TWO

- Question 2** TAFE NSW. (2004). *Basic building and construction skills: Carpentry and other general construction trades* (3rd ed.). Camberwell, Vic.: Pearson Education Australia.
- Question 3** TAFE NSW. (2004). *Basic building and construction skills: Carpentry and other general construction trades* (3rd ed.). Camberwell, Vic.: Pearson Education Australia.
- Question 7** West Coast College of TAFE. (n.d.). *BCG2004A: Carry out levelling* [Worksheets]. Joondalup, WA: West Coast College of TAFE.