



UNIVERSITY OF JOHANNESBURG
FACULTY OF EDUCATION
NOVEMBER / DECEMBER
SUPPLEMENTARY EXAMINATION 2014

PROGRAMME: B Ed (Senior Phase and FET)
MODULE: TEACHING METHODOLOGY AND PRACTICE
 CIVIL TECHNOLOGY
CODE: MOFPCB2
TIME: 1 hour
MARKS: 50
EXAMINER: Mr W Engelbrecht
MODERATOR: Dr CF van As

(This paper consists of 2 pages)

INSTRUCTIONS

Read the following instructions carefully before answering the questions.

1. Answer all the questions.
2. You may consult the NCS, CAPS and your lesson plans.

QUESTION 1

Give a step by step explanation of how you will introduce the calculation and drawing of diagrams of shear force and bending moments in beams to your Grade 11 learners for the first time. Refer to the following points in your explanation:

- 1.1 According to the CAPS document for Civil technology Grade 11 when will you have to teach shear forces and bending moments in beams? (2)
- 1.2 Formulate a lesson objective for a lesson on shear forces and bending moments. (2)
- 1.3 Briefly discuss how you would introduce the lesson. (2)
- 1.4 Which instructional approach would you use for this lesson? (1)
- 1.5 Which instructional strategies will be appropriate for this lesson? (2)

- 1.6 Briefly discuss the conceptual knowledge associated with this lesson. (2)
- 1.7 Briefly discuss the different elements of shear forces and bending moments in beams. (4)
- 1.8 List the instructional media you would use in a lesson on shear forces and bending moments in beams. (4)
- 1.9 Briefly discuss appropriate learner activities for a lesson on shear forces and bending moments in beams. (2)
- 1.10 Formulate THREE questions you can ask the learners during the lesson that will reflect the first three levels of Bloom's taxonomy. (6)
- (27)**

QUESTION 2

Write down in logical order the aspects you will consider when developing a rubric to assess a homework task on shear forces and bending moments in beams. (3)

QUESTION 3

- 3.1 Explain the function of the following power tools on the building site:
- 3.1.1 Portable circular saw (2)
 - 3.1.2 Angle grinder (2)
 - 3.1.3 Portable mechanical hammer (Jack hammer) (2)
- 3.2 When teaching learners about power tools it is important for them to see the actual tools and preferably a demonstration of how it works and what it does. Briefly discuss your options as a teacher for demonstrating these power tools, if all the tools you have to teach learners about is not available at the school. (4)
- 3.3 Develop an appropriate homework assignment to assess learners' knowledge of power tools, complete with assessment instrument (for example a memo, rubric or observation sheet) (10)
- (20)**

TOTAL: 50