

PWO – Site Management Works

**T108**

Friday, 13/11/2015

08:30 – 11:30

WORKFORCE DEVELOPMENT AUTHORITY



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**ADVANCED LEVEL NATIONAL EXAMINATIONS, 2015,  
TECHNICAL AND PROFESSIONAL TRADES**

**EXAM TITLE: Site Management Works**

**OPTION: Public Works**

**DURATION: 3hours**

**INSTRUCTIONS:**

The paper is composed of **three (3) Sections:**

Section **I:** Sixteen (**16**) questions, all **Compulsory.**

**55marks**

Section **II:** Five (5) questions, **Choose Three (3) only.**

**30marks**

Section **III:** Three (3) questions, **Choose only One (1).**

**15marks**

The use of calculator is admitted

**Every candidate is required to strictly obey the above instructions. Punishment measures will be applied to anyone who ignores these instructions.**

**Section I. Sixteen (16) Compulsory questions. 55marks**

01. What are the four (4) principal resources involved in a construction project? **4marks**
02. In a proper sequential order, give the list of steps to be followed for good management of materials. **5marks**
03. Mention six (6) personal skills required for the construction manager. **3marks**
04. On which factors depend the availability of labor? **3marks**
05. Give the main procurement options for obtaining a plant. **3marks**
06. List down key people involved in the site layout. **3marks**
07. What are the technics of wood preservation by non-pressure method? **2marks**
08. What is a scaffold by definition? **3marks**
09. Construction site access can be considered in two (2) parts, what are they? **4marks**
10. Differentiate "traditional" from "elemental" bill of quantities formats. **4marks**
11. Mention eight (8) factors affecting a construction project plan. **4marks**
12. In Construction Management:
- i) What is a contract? **2marks**
  - ii) For a contract to be legally valid, four (4) elements of the contract have to be present. What are they? **4marks**
13. There are three fundamental questions that the planner must Him/herself ask when deciding how and where to place an activity in the sequence. What are they? **3marks**
14. What is the difference between tools and materials? **2marks**
15. What are the two (2) manners of preparing the site? **2marks**
16. What is the function (role) of the following technician in construction company?
- a) Building ousner
  - b) Site agent **4marks**

**Section II. Answer any three (3) questions of your choice**

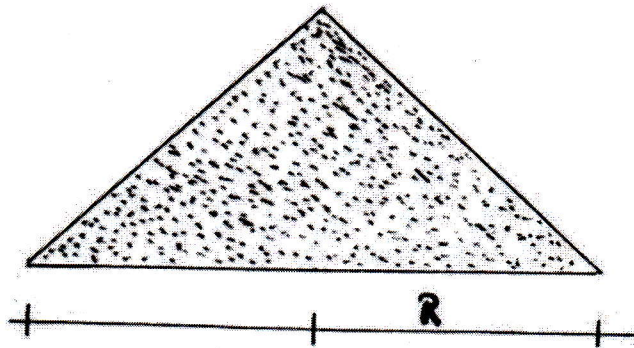
**(Do not choose more than three questions). 30marks**

17. List any nine (9) materials used in masonry work and give the use of each. **10marks**
18. a) Give all requirements of good framework  
b) What are the materials used for framework?  
c) What are the factors to be considered in selecting a building site. **10marks**
19. a) What are the causes of accidents on the site?  
b) What are the two (2) types or categories of tools used in construction?  
c) List any two (2) methods used to compact the concrete on the site. **10marks**
20. Mention the characteristics of a good scaffold. Give any four (4) of its advantages. **10marks**
21. (a) What are the properties of a good mortar to use in construction?  
(b) What are the two (2) groups in which the admixtures are divided?  
(c) List any two (2) main classes of engineering materials used in construction of a building.  
(d) What is the role of profiles in construction as collective tools? **10marks**

**Section III. Answer any one (1) question of your choice**

**(Do not choose more than one question). 15marks**

22. (a) What are the results of site investigation information needed about soil?  
(b) Classify the aggregates basing on their sources (origin).  
(c) What is the difference between mass concrete and reinforced cement concrete? **15marks**
23. (a) The figure below represents a sand of 20 m<sup>3</sup> stored on the site.

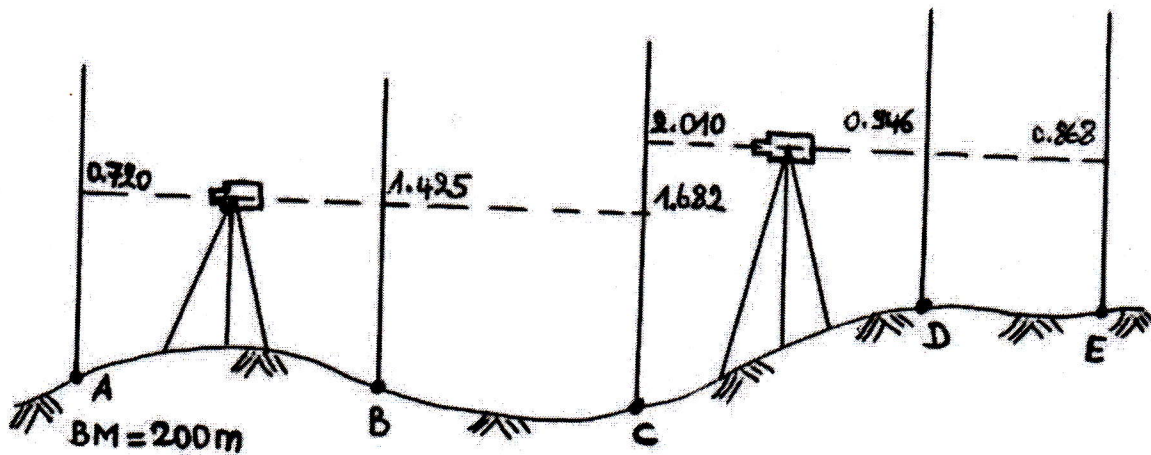


If the inclination angle is  $\alpha=45^\circ$ , Calculate the radius of the sand.

(b) What are the factors that motivate employees?

**15marks**

24. Study the following set up, and fill the readings on page book level.  
After leveling computation, check the results.



**15marks**