MARK SCHEME for the October/November 2015 series

0417 INFORMATION AND COMMUNICATION TECHNOLOGY

0417/02 Paper 2 (Practical Test A), maximum raw mark 80

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners’ meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the October/November 2015 series for most Cambridge IGCSE®, Cambridge International A and AS Level components and some Cambridge O Level components.
Details presented by: Candidate

SKKDSA is an engineering company specialising in chemical engineering. It is a multi-disciplinary company with expertise in project management for civil and structural engineering projects. The company offers analysis and design through to implementation, construction and testing.

Staff expertise

The company has, at present, a staff of over 75 engineers, designers and draftsmen, with civil/structural, process/mechanical, electrical, and environmental expertise. The company’s construction management departments are experienced in all aspects of industrial facility design and construction.

Project Management

Projects include municipal water and waste treatment facilities, desalination plants for sea and brackish water, as well as surface water treatment, bulk materials handling and firefighting networks. Projects may be as diverse as oil refineries, hotel water treatments and systems aboard ships.

The company offers a broad range of engineering services including:

- Preparation of Economic and Feasibility Studies
- Conceptual and Preliminary Design
- Construction Specifications and Contractor Bid Evaluation
- Conceptual Engineering and Estimating
- Planning and Scheduling
- Preliminary and Detailed Design
- Equipment Specifications
- Equipment and Materials Procurement
- Environmental Assessment/Permitting
- Start-up Assistance
- Project and Construction Cost Estimating
- Construction Management
- Inspection/QA/QC
- Operator Training
- Design for Dismantling

They can design and install desalination plants, waste treatment plants, pipeline and pumping stations for potable, irrigation, sewage and firefighting systems. The systems are exported to countries all over the world.
Instrumentation and Electrical Departments
Their instrumentation and electrical departments, which they believe must be among the largest and most technically proficient groups, have specialised in solving the problems of industrial clients such as the oil and gas industry. They offer comprehensive services covering all aspects of oil and gas processing. They are deeply involved in attending to clients’ “emergency codes” as well as continuing their attention to the safety aspects of projects.

Many of the engineers have had an in-house training background in electrical and instrumentation services. Engineers on the staff have acted as Project Managers, both in-house and for various clients interfacing with other engineering firms.

The chart shows income generated from projects (and includes projected income from on-going work): The chart shows that the best year was 2011.
<table>
<thead>
<tr>
<th>Country</th>
<th>Code</th>
<th>Client</th>
<th>Location</th>
<th>Process</th>
<th>Capacity</th>
<th>Cost</th>
<th>Year</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>SKA118</td>
<td>Saint Nazaire Shipyard</td>
<td>Queen Mary II</td>
<td>MED Steam</td>
<td>3 unit each 650m3/day</td>
<td>€120,000.00</td>
<td>2014</td>
<td>No</td>
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<td>EC</td>
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<td>HM</td>
<td>Jeddah</td>
<td>SWRO</td>
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<td>SKA105</td>
<td>MC</td>
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<td>Desalination Plant</td>
<td>750</td>
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Candidate details
Sorted Country ascending 1 mark

Report title as stated 1 mark
All fields displayed, data and labels all fully visible 1 mark

Search Completed is No 1 mark
Three new records added as stated 3 marks

Orientation landscape Fits one page wide 1 mark
Label 100% accurate 1 mark

Name, Centre number and candidate number on left below report 1 mark

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<tr>
<th>Code</th>
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Commission earned from projects: €1,469,900.00
Some technical terms
Presentation by: name etc.

Slide 1 title and subtitle 1 mark
Text as given 1 mark
Alignment - title-left / subtitle-right 1 mark

Four slides imported as title and bullets 1 mark
Printed layout three slides per page  1 mark

Transitions applied to all slides  1 mark
Page layout
A4 Landscape (screenshot) 1 mark
Margins all 2 cms (screenshot) 1 mark

New contact
Maryam Sayed  m.sayed@cie.org.uk  1 mark
Database structure
Fields with specified data types (Capacity not numeric) 1 mark
Cost is currency & displayed as Euros with 2dp in report 1 mark
Completed is logical 1 mark
displayed as Yes/No or checkbox in reports 1 mark

Count records 1 mark

New message
To design.h@cie.org.uk and
CC: Maryam Sayed 1 mark

Subject Company profile 1 mark
Report only attached file 1 mark
Name, Centre No & candidate no with
Please approve this first draft of the report. 1 mark

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