Test 1

Multiple choice

A question might have several correct answers. Answer is answered correctly, if all correct answers are marked.

1. How is the development of cost effective solutions to practical problems through the application of scientific knowledge, called?
   - Live-cycle
   - Building
   - Engineering
   - Application

2. What are the major stakeholder interests?
   - Development interests
   - Usage interests
   - Financial interests
   - Observational interests

3. During which activities requirements inconsistencies can be found?
   - Requirements validation
   - Requirements elicitation
   - Requirements documentation
   - Requirements management

4. During which activity does requirement engineer establish requirements traceability, prioritise requirements, and manage changes of requirements artefacts?
   - Requirements management
   - Requirements representation
   - Requirements validation
   - Requirements documentation

5. Is elicitation difficult because of the existing bias?
   - Yes
   - Yes, and also because of the thin spread of knowledge and tacit knowledge
   - No
o No, it is difficult because of the thin spread of knowledge and tacit knowledge

6. What concerns should be included to requirement specification (document)?
   o Performance
   o Attributes
   o Design constraints imposed on and implementation
   o Functionality

7. Which criterion of good requirements does often require quantification?
   o Cohesiveness
   o External observability
   o Understandability
   o Testability

8. Why is it important to resolve requirements conflicts?
   o For the interdependence and clarity
   o For the complete specification of the requirements
   o For the acceptance of the system by stakeholders
   o For the successful (i.e., timely, within the budget, and etc.) completion of the project

9. What are things in the application domain that are true or not when we ever build the proposed systems?
   o Requirements
   o Specification
   o Domain properties
   o Assumptions and expectations

10. How are aspects which concern the operational or technical environment where the system is deployed, called?
    o Subject facet
    o Usage facet
    o Development facet
    o IT system facet

11. How are systems that are useful in the context of some human activities supported by the software, which is run on some hardware, called?
    o Computer systems
    o Information systems
    o Software-intensive systems
    o Software systems

12. What type of conflict does exist if stakeholders are wrongly or incompletely informed about the requirements?
o Values conflict
o Data conflict
o Interest conflict
o Analysis conflict

13. Which requirements negotiation activity might include decision (by authority) making?

o Conflict identification
o Conflict analysis
o Conflict resolution
o Conflict documentation

14. Which requirements engineering activity does help to achieve progress in the content dimension by detailing information about existing requirements?

o Requirements validation
o Requirements elicitation
o Requirements management
o Requirements specification

15. Which requirements artefacts do specify requirements at the required level of detail, the desired properties and features of the system to be developed?

o Solution-oriented requirements
o Goals
o Scenarios
o Domain properties

16. What is the part of the system environment relevant for defining, understanding and interpreting the system requirements?

o System boundary
o Requirement engineering
o Requirements specification
o System context

17. Which elicitation techniques are used for summarization and feedback, i.e., to conclude on a set of the requirements, to discuss the results of the information gathering, etc.

o Meetings
o Interviews
o Groups elicitation techniques
o Joint/rapid application development
Exercise 1: These requirements are extracted from solutions of your colleagues. Do they correspond to the “criteria of good requirements”? If not, please refine them so that they would correspond to the “criteria of good requirements”.

**SecReq.1:** The football federation employee, Bob, may remove the league secretary at any time and it should be available.

**SecReq.2:** After match team representatives sign the report and optionally provide comments.

**SecReq.3:** Confirmation of game results by the team shall be allowed only for team representative which represents team under action.

**SecReq.4:** Football Federation Employee should be identified before having access to use the functions related to the creation of the game report to prevent unauthorized people to create fake game reports.

**SecReq.5:** ERIS shall allow all Users to view all Data in the Game Report.

**SecReq.6:** Football Federation Employee (legal secretary) needs authorization to insert the initial data, Final confirmation in the game report.

**SecReq.7:** Security Criteria: Integrity of creating Team Composition Security Control: Implementing authorization policy for team representatives’ roles.

**SecReq.8:** User must be logged in and have a role of “League Secretary” to confirm game report and “Team Representative” must have submitted Game Report.
Exercise 2: Think of the Universities OIS system https://ois2.ut.ee/. Describe the four facets of this system context:

Exercise 3: Analyse the given accounting document and elicit at least five requirements.

<table>
<thead>
<tr>
<th>ASSETS</th>
<th>LIABILITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>Notes payable</td>
</tr>
<tr>
<td>300</td>
<td>$ 1,000</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>Accounts payable</td>
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<tr>
<td>1,000</td>
<td>325</td>
</tr>
<tr>
<td>Supplies</td>
<td>Wages payable</td>
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<tr>
<td>160</td>
<td>75</td>
</tr>
<tr>
<td>Prepaid insurance</td>
<td>Unearned revenues</td>
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<tr>
<td>90</td>
<td>100</td>
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<tr>
<td>Land</td>
<td>Total liabilities</td>
</tr>
<tr>
<td>10,000</td>
<td>1,500</td>
</tr>
</tbody>
</table>

MARY'S DESIGN SERVICE
Balance Sheet
September 30, 2018

<table>
<thead>
<tr>
<th>ASSETS</th>
<th>LIABILITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total assets</td>
<td>Total liabilities &amp; owner's equity</td>
</tr>
<tr>
<td>$ 11,550</td>
<td>$ 11,550</td>
</tr>
</tbody>
</table>

OWNER'S EQUITY

M. Smith, Capital 10,050

ReqFF.1:

ReqFF.2:

ReqFF.3:

ReqFF.4:

ReqFF.5: