Helwan University
Faculty of Computers and Information
Information Systems Department

Midterm Exam

Subject : Internet Applications – IS 345 **Second Semester (March, 2016)**	**Time Allowed: 45 Min.** **Instructor: Dr. Hanan Fahmy**
Name:	**ID:**
Level:	**Dept:**

Answer the following questions:

1. Performs parsing and layout for (X)HTML documents enriched with other languages.
(A) XML Parser (B) Rendering Engine (C) Easily modifiable

2. ..... is designed to permit intermediate network elements to improve or enable communications between clients and servers.
(A) Web Server (B) HTTP (C) Block communication model

3. ..... may use an (X)HTML engine to combine dynamic content with (X)HTML template to generate resulting documents that finally are delivered to the web browser.
(A) Application engine (B) AJAX engine (C) Web server

4. ..... chooses an available pregenerated processing entity and forwards the client descriptor to it
(A) Web server (B) The connector entity (C) The delegation process

5. ..... defines the structure and the legal elements and attributes of an XML document.
(A) SAX (B) DTD (C) XML Schema

6. ..... interprets the document in its logical tree structure thus making it necessary to load a tree representation of the document into memory
(A) SAX (B) DOM (C) YAML

7. ..... can reuse a connection multiple times to download images, scripts, stylesheets, etc after the page has been delivered.
(A) HTTP 1.0 (B) HTTP 1.1 pipelining (C) HTTP 1.1

8. The code that started with..... means that requested resource has been moved permanently to new URL.
(A) 3XX (B) 4XX (C) 5XX

9. ..... provide an optimized transport for HTTP semantics using multiplexing and header compression.
(A) HTTP 2 (B) HTTP 1.2 (C) Comet

10. Web server is responsible for rendering the user interface and communicating with the server on the user's behalf.
(A) True (B) False

11. The header specifies the operation that should be performed on the addressed resource and includes parameters (passed as key-value pairs)
(A) True (B) False

12. ..... enables web servers to send data to the client with only an initial HTTP Request and after this without having any need for the client to request the data.
(A) Asynchronous model (A) Synchronous model (B) Non-blocking model

13.

```
<planet name="earth" type="small" diameter="12 756 km" planetSystem="sun system">
<star type="G2" diameter="1 392 500 km" surface="6 x 10^18 km²">sun</star>
<moon surface="37 932 330 km²">moon</moon>
<land surface="148 900 000 km²">
<continent surface="44 400 000 km²" habitant="3 968 000 000">asia</continent>
<continent surface="10 500 000 km²" habitant="732 000 000">europe</continent>
<continent surface="8 500 000 km²" habitant=33 000 000>autralia/oceania </continent>
</land>
<water surface="360 800 000 km²"/>
</planet>
```

The above code represents XML file with some errors?

(A) True (B) False

14. Which of the following represents JSON code of the XML code in Question **11**

(A)
```
{ "planet": { "name": "earth", "type": "small","diameter": "12 756 km", "planetSystem": "sun system","star": { "type":
"G2","diameter:": "1 392 500 km","surface:": "6 x 10^18 km²", "name": "sun" },
"moon": { "surface": "37 932 330 km²", "name": "moon"},
"land": { "surface": "148 900 000 km²", "continent":
{"surface": "44 400 000 km²","habitant": "3 968 000 000","name": "asia"},
{"surface": "10 500 000 km²","habitant": "732 000 000","name": "europe"},
{"surface": "8 500 000 km²","habitant": "33 000 000","name":"australia/oceania"} , "water": "360 800 000 km²" }}
```

(B)
```
{ "planet": { "name": "earth", "type": "small","diameter": "12 756 km", "planetSystem": "sun system","star": { "type":
"G2","diameter:": "1 392 500 km","surface:": "6 x 10^18 km²", "name": "sun" },
"moon": { "surface": "37 932 330 km²", "name": "moon"},
"land": { "surface": "148 900 000 km²", "continent": [
{"surface": "44 400 000 km²","habitant": "3 968 000 000","name": "asia"},
{"surface": "10 500 000 km²","habitant": "732 000 000","name": "europe"},
{"surface": "8 500 000 km²","habitant": "33 000 000","name":"australia/oceania"} ] }, "water": "360 800 000 km²" }}
```

(C)
```
{ "planet": { "name": "earth", "type": "small","diameter": "12 756 km", "planetSystem": "sun system","star": { "type":
"G2","diameter:": "1 392 500 km","surface:": "6 x 10^18 km²", "name": "sun" },
"moon": { "surface": "37 932 330 km²", "name": "moon"},
"land": { "surface": "148 900 000 km²", "continent":
{"surface": "44 400 000 km²","habitant": "3 968 000 000","name": "asia"},
{"surface": "10 500 000 km²","habitant": "732 000 000","name": "europe"},
{"surface": "8 500 000 km²","habitant": "33 000 000","name":"australia/oceania"} }, "water": "360 800 000 km²" }}
```

15. ..... is a high degree of standardization and stricter syntax leads to further unification of browser engine.

(A) XHTML (B) Script engine (C) None of the previous

16. Provide a description how comet may be implemented with pointing out how the interaction between client and server is realized using HTTP.

Answer is in Page 26 and page 28