**Outcome 1**

**1-Choose the correct answer**

**1-The internet use to………….**

1. Communication
2. eating
3. Information retrieval
4. **A and c**

**2-The Internet is built upon a set of standardized protocols, most notably the……..**

1. **TCP/IP**
2. TTS/IS
3. DNS
4. IPV4

**3- web services are software systems designed to facilitate interoperable machine-to-machine interaction over a network, typically using standard protocols such as…………**

1. **HTTP and XML**
2. HTTPS and XAML
3. HTML only
4. None of the above

**4- SOAP is a/an ……………….. for exchanging structured information in the implementation of web services.**

1. Server
2. Internet
3. **Protocol**
4. A and b

**5- REST is a/an ………..for designing networked applications.**

1. User interface
2. **architectural style**
3. service style
4. programming language

**6-GET: This method is used to…..**

1. to update a part of an existing resource on the server
2. to submit an entity to the server for processing
3. **used to retrieve a representation of a resource from the server**
4. to update an existing resource on the server

**7-………method is used to delete a resource from the server**

1. patch
2. get
3. put
4. **delete**

**8-………. is an object-relational mapping (ORM) framework that enables developers to access and manipulate data from a database using object-oriented programming.**

1. Migration
2. Api.net
3. **Entity framework core**
4. Connection string

**9-........ is a web application framework developed by Microsoft for building dynamic web applications and web services.**

1. Web service
2. **Asp.net**
3. A and b
4. PHP

**2- Put (✔) or (❌)**

1- SOAP follows a strict messaging structure with predefined standards, while REST is more flexible and relies on standard web protocols and formats. (✔)

2- SOAP messages are typically encoded using C#, while REST commonly uses formats like Python or XAML. (❌)

3- SOAP is a protocol for exchanging structured information in the implementation of web services. It relies on XML for message format and typically uses HTTP or SMTP as transport protocols. (✔)

4- REST is an architectural style for designing networked applications. It emphasizes stateless communication and resource-based interactions, typically using standard HTTP methods (GET, POST, PUT, and DELETE). (✔)

5- TCP/IP Stands For (Transmission Control Protocol/Internet Protocol) (✔)

6- XML is a lightweight data interchange format that is easy for humans to read and write and easy for machines to parse and generate. It is commonly used in web APIs for transmitting data between the server and client. (❌)

7- JSON L is a markup language used for encoding structured data in a human-readable format. It is widely used for data interchange and configuration purposes. (❌)

8- XML uses tags to define data elements and attributes, while JSON relies on key-value pairs and arrays. (✔)

9- XML is often used for configurations, data exchange in legacy systems, and document markup, while JSON is preferred for web APIs and modern data interchange. (✔)

10- ASP.NET is a web application framework developed by Microsoft for building dynamic web applications and web services. (✔)

**Write (True) in front of the right sentence and (False) in front of the wrong sentence.**

1. Web API can uses C# programming language (**True)**
2. A Web API project can be created using MySQL (**False)**
3. We make a Web API project that implements CRUD operations for sample data to update and delete it from SQL database (**False)**
4. Web API project run on windows OS only (**False)**
5. Web API doesn’t include using database (**False)**
6. Visual Studio doesn’t need internet connection (**False)**

**Choose the right answer from between the two brackets.**

1. **IDE stand for (………………………………………..)**

(International development environment – Integrated development environment – International development education – Integrated development education)

1. **Internet Information Services (IIS) serves (……………………………….)**

(HTTPS – FTP – SMTP – all of them)

1. **SOAP API refers to (……………………………….)**

(Simple Object Access Protocol – Serious Object Access Protocol – Simple Oriented Access Protocol - Simple Object Average Protocol)

1. **REST API refers to (…………………………….)**

(Representational State Transfer – Representational Easy State Transfer – Real Education State Transfer – Representative State Transfer)

1. **SOAP Service uses (…………………) Programming language**

(Java Script – CSS – C# – C)

1. **CRUD refers to (………………………………..)**

(Create, Repost, Update, Delete – Crash, Read, Update, Delete – Create, Read, Update, Destroy – Create, Read, Update, Delete)

1. **Implement the SOAP service using a programming language, such as……………………….**

(a) Java (c) Python

(b) C# (d) all of the above

1. **SOAP Protocol Uses ……………………… for message format**

(a) Java (c) XML

(b) C# (d) all of the above

1. **REST Protocol Can use various data formats, including ……………………………………….**

(a) Java (b) C#

(c) C++ (d) JSON

1. **REST Transport Protocol Predominantly uses ………………………. as the transport protocol.**

(a) HTTP (b) JMS

(c) SMTP (d) all of the above

1. **A currency conversion web service using ……………………. may have predefined methods** for requesting conversion rates.

(a) HTTP (b) JMS

(c) REST (d) SOAP

1. **Which of the following is a key difference between Web Services and Websites?**

(a) Web services provide interactive user interfaces, while websites focus on data exchange.

(b) Websites are accessed through browsers, while applications primarily access web services.

(c) Web services are server-side applications, while websites can only exist on the client-side.

(d) Websites are only used for public APIs, while web services are private.

1. **What is the main difference between SOAP and REST web services?**

(a) SOAP is used for internal networks, while REST is only used on the internet.

(b) REST is protocol-independent, while SOAP is based on XML and HTTP.

(c) SOAP is a protocol, while REST is an architectural style.

(d) REST supports more data formats, while SOAP only supports XML.

**10) Which HTTP method is used to retrieve data from a web service?**

(a) POST (b) PUT

(c) GET (d) DELETE

**11) Which of the following is a common HTTP header in web services?**

(a) Content-Type (b) Accept-Language

(c) User-Agent (d) All of the above

**12) Which format is typically used in REST web services for data exchange?**

(a) XML (b) JSON

(c) CSV (d) Both XML and JSON

**13) Which of the following tools is required for developing ASP.NET Core Web APIs?**

(a) Eclipse (b) Visual Studio

(c) Sublime Text (d) NetBeans

**True or False:**

1) SOAP Error Handling Includes built-in mechanisms for error handling and fault reporting ( )

Answer: True

2) REST Error Handling Relies on HTTP status codes and error messages for error handling ( )

Answer: True

3) REST Security Provides support for various security standards such as WS-Security ( )

Answer: False

4) SOAP Architecture Based on a more flexible architectural style without strict guidelines ( )

Answer: False.