Class :-12th(MSBTE)   Information Technology   Teacher : Mrs. Shilpa Kate

Lesson No.4.Emerging Technologies   Multiple Choice Questions

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Q1.Fill in the Blanks

1. In **Smart lighting system** Illumination of light is controlled on the basis of day light.
2. **Smart thermostat** device allows user to schedule ,monitor and remotely control home temperatures.
3. **Cloud** computing is a model for enabling, convenient on-demand network access to a shared pool of computing resources like network, servers, storage, applications and services released with service provider interaction.
4. **Infrastructure as a service** service provider gives users access to storage, networking, servers and other computing resources via the cloud.
5. **Platform as a service** provides a platform with tools to test, develop and host applications in the same environment
6. A **Software as a service** service provider delivers software and applications through the internet.
7. In **Public** cloud, all the services and supporting   infrastructure are managed off-site over the internet and shared across multiple users.
8. **Private cloud** provides I.T services through the internet or a private network to selected users rather than to general public.
9. In Private cloud solution all the data is protected behind the **Firewall**
10. **Hybrid Cloud** environments combines both Public and Private cloud elements
11. **Artificial intelligence** is an area of computer science that emphasizes on creation of intelligent machines that work and react like humans.

12. **Natural language processing** involves analyzing and understanding human language and responding to it.
13. **Machine learning** analytical model building, to find hidden insights in data without being programmed to look for something in particular or draw a certain conclusion.
14. **Neural Network** imitate the brain's array of interconnected neurons, and relay information between various units to find connections and derive meaning from data.
15. **5G** is the fifth generation of cellular network technology.
16. 5G is the next generation of **wireless** communications.

Q2.True or false

1. While accessing IaaS user is still responsible for managing their applications , data, middleware etc. **Ans: True**
2. Infrastructure is scalable depending on processing and storage needs. **Ans: True**
3. Instead of purchasing hardware outright, users pay for IaaS on demand. **Ans: True**
4. Cloud computing solutions are expensive than the actual overall Infrastructure set up for the I.T services. **Ans: False**
5. Cloud computing solutions are not portable as we cannot access from anywhere. **Ans: False**
6. 5G never support IoT based applications. **Ans: False**
7. 5G increases Application loadtime for devices. **Ans: False**
8. Due to 5G Uploading and downloading time speed is high. **Ans: True**
9. Hybrid cloud allows greater flexibility as compared to that of public and private cloud solutions. **Ans: True**
10. AI can causes major problems in the unemployment. **Ans: True**

Q3.Select 1 correct option

1. _____ as a Service is a cloud computing infrastructure that creates a development environment upon which applications may be build.
   a. Infrastructure   b. Service   c. Platform   d. All of the mentioned

2. **Which of the following is classic example of an IaaS service model ?**
   A. AWS   B. Azure   C. Cloudera   D. All of the mentioned

3. **Which of the following is a SaaS characteristic ?**
   a. Users do not have to manage, install or upgrade software; SaaS providers manage this.

   b. Data is secure in the cloud; equipment failure does not result in loss of data.

   c. Use of resources can be scaled depending on service needs.

   d. All of the mentioned

4. **What is Private cloud?**
   a. shared across multiple users, globally
   b. Not shared among multiple people, of only one customer/organization
   c. Having greater flexibility with security
   d. None

5. **What are the Applications of IoT?**
   a. Smart lighting system b. Smart Thermostat c.Security Cameras **d. All**

6. **following is role of smart thermostat.**
   a. Brightness of light is controlled on the basis of day light.
   b. Allows users to schedule, monitor and remotely control home temperatures.
   c. can identify known and unknown person and raise alarm, in case of security threat.
   d. None

7. **Cloud computing provides on-demand network access to a shared pool of following computing resources**
   a. network ,servers b. Applications   c. storage   **d. All**

8. **Which of the following is the highest degree of integration in cloud computing?**
   a) CaaS   b) AaaS   c) PaaS   **d) SaaS**

9. **……………..is about creating a "natural, human-like interaction", including using the ability to interpret speech and respond to it.**
   a. Machine learning   **b. cognitive computing** c. Neural network d. Computer vision

10.…………………………employs pattern recognition and deep learning to understand the content of pictures and videos, and to enable machines to use real-time images to make sense of what's around them.

a. Computer vision b.Machine learning c.Cognitive learning d.Natural language Processing

1. **SaaS vendors provide**

   a. **Users do not have to manage, install or upgrade software .**

   b. equipment failure result in loss of data.

   c. Use of resources can not be scaled depending on service needs

   d. **Applications are accessible from virtually anywhere in the world.**

2. **Hybrid cloud Combines both ………..and ……….. clouds elements**

   a.Public **b.Private** c.Protected d.Virtual

3. **Following are the examples of Public cloud**

   a. Amazon AWS **b. Google Cloud Platform** c. VMware vCloud

   d. Amazon VPC

4. **Following are the features of Private cloud.**

   a. **Not shared, of only one customer/organization**

   b. **Data is protected behind the firewall.**

   c. shared across multiple users,globally.

   d. Combines both Hybrid and public clouds elements

5. **Following are disadvantages of AI**

   a. Reduction in human error b. Digital Assistance

c. Faster Decisions   **d. High cost of creation.**   e. **Unemployment**

6. **These are the Advantages   of IoT.**

   a. Efficient resource utilization b. Increase human effort

   c. Improve   security

   d. without   the   active   participation   on   the   user, provides   important personal data in maximum detail.

   e. Complexity

7 .Follwing are the PaaS service providers.

   a.Force.com   b. Google's G suite **c. Apache Stratos** d.Dropbox d. Git Hub

Q5.Select 3 options

1. **Following are the applications of 5G**
   a.Online 5G Gaming   b. Offline classrooms.   **C. Virtual Classroom d**. **Automated vehicle's**   e. neural network.
2. **These are the models of cloud computing**
   a.IaaS   b.NaaS **c,PaaS**   d.DaaS   **e.SaaS**
3. **Following are the Subfields of Artificial Inteligence**
   a. Neural networks   **b.Deep learning**   **c.Computer vision**
   d. Public computing   e.Smart signal System
4. **5G Carry very large amounts of data at a short distance using medium**
   a.Spectrum bands   **b. millimeter wave**   **c. radio spectrum** d.Gama rays e. Sunlight
5. **Following are the examples of SaaS?**
   a.Force.com   **b. Google's G suite** c. Apache Stratos **d.Dropbox e.Git Hub**