

KENDRIYA VIDYALAYA 9 BRD PUNE
MONTHLY TEST OCTOBER 2019 Subject : CS

TIME: 90 MIN

MM:35

- Q.1 (a)is an example of Public cloud. 1
- (b) is a network of physical objects embedded with electronics, software, sensors and network connectivity. 1
- (c) ----- is a device that forwards data packets along networks. 1
- (d) ----- describes the maximum data transfer rate of a network or Internet connection. 1
- (e) Give the full forms of the following (i) HTTP (ii) FTP (iii) VoIP (iv) SSH 2
- (f) How many pair of wires are there in twisted pair cable(Ethernet)? What is the name of port ,which is used to connect Ethernet cable to a computer or a laptop? 2
- (g) Software Development Company has set up its new center at Raipur for its office and web based activities. It has 4 blocks of buildings named Block A, Block B, Block C, Block D.
- Number of Computers :
- Block A 25
- Block B 50
- Block C 125
- Block D 10
- Shortest distances between various Blocks in meters:
- Block A to Block B 60 m
- Block B to Block C 40 m
- Block C to Block A 30 m
- Block D to Block C 50 m
- (i) Suggest the most suitable place (i.e. block) to house the server of this company with a suitable reason.
- (ii) Suggest the type of network to connect all the blocks with suitable reason.
- (iii) The company is planning to link all the blocks through a secure and high speed wired medium. Suggest a way to connect all the blocks.
- (iv) Suggest the most suitable wired medium for efficiently connecting each computer installed in every block out of the following network cables:
- Coaxial Cable
 - Ethernet Cable
 - Single Pair Telephone Cable.

Q.2 (a) Ravya Industries has set up its new center at Kaka Nagar for its office and web based 4 activities. The company compound has 4 buildings as shown in the diagram below:

4

Center to center distances between various buildings is as follows:

Harsh Building to Raj Building	50 m
Raz Building to Fazz Building	60 m
Fazz Building to Jazz Building	25 m
Jazz Building to Harsh Building	170 m
Harsh Building to Fazz Building	125 m
Raj Building to Jazz Building	90 m

Number of Computers in each of the buildings is as follows :

Harsh Building	15
Raj Building	150
Fazz Building	15
Jazz Bulding	25

e1) Suggest a cable layout of connections between the buildings.

e2) Suggest the most suitable place (i.e. building) to house the server of this organization with a suitable reason.

e3) Suggest the placement of the following devices with justification:

Internet Connecting Device/Modem

Switch

e4) The organization is planning to link its sale counter situated in various parts of the same city, which type of network out of LAN, MAN or WAN will be formed? Justify your answer.

(b) Explain Repeater and Router.

2

(c) What is URL. Give example .Also identify the domain name in URL.

2

(d) Explain TCP/IP.

2

- (e) What is cloud computing. What are different cloud deployment models. 2
- (f) Expand the following : 2
 - I.SIP
 - II.TDMA
 - III.WLL
 - IV.POP

- Q. 3 (a)What is ping network tool. 2
- (b) What is CSMA/CA ? How does it work. 2

Q.4 7

- (a) Is considered a broadband communication channel.....
- (b) The communication protocol that sets the standard used by every computer that accesses web-based information
- (c) Example of IP address in v4 is :..... And v6 is :.....
- (d) Which Internet of Things (IoT) challenge involves the difficulty of developing and implementing protocols that allow devices to communicate in a standard fashion?.....
- (e) In Carrier Sense Multiple Access/Collision Detection (CSMA/CD), sending station must Detect
- (f) An error detection is achieved by adding an extra bit is
- (g) The transmission capacity of a communication channel.....
