

Q No.1

25 Marks

A television channel's Karachi office has requirement for internet to transfer their recorded programs to their Dubai office from where they will broadcast programs. Company needs a dedicated link of 10 Mbps. They use internet 24 hours to continuously transfer programs to Dubai office.

- (A) What different internet provider options are available for TV channel?
- (B) Which one is best suited for the above scenario? Justify
- (C) With the help of diagram Explain architecture of your proposed solution in 1 (B).
- (D) Do you think TV channel need a backup plan for internet in the case of failure of your proposed solution? If yes, then suggest what option it should choose for it?

Q No.2

25 Marks

A curious niece of yours, is very excited to learn different things about the latest technologies, she came to know that you are a student of computer science, now she comes to you and asks how computer and mobile phones can send picture and videos to remote locations? What is the technology behind it? Now your job is to explain her the technology behind.

- (A) Describe different term used for the technology asked in above scenario.
- (B) Draw a diagram and define different entities involved.
- (C) Explain who gives the facility of above asked technology.
- (D) Do you think any standard and protocol is required for the technology asked?

Q No. 3

25 Marks

Suppose an open source operating system organization has launched a new version of OS, now they want to distribute their OS, as it is open source anyone can download it and distribute it. The organization don't want to invest into the infrastructure required to distribute their OS in a way that every user download it from their own server, now what are the other options available for the organization.

- (A) Suggest the best solution for the above defined requirement.
- (B) Justify your solution by providing a comparison from traditional solution which organization don't want to use.
- (C) Give an example of your proposed solution which is already working.
- (D) Briefly describe your proposed solution with the help of diagram.

Q No. 4

25 marks

Suppose you are running an application for data backup at your mobile phone, this application requires to communicate with its cloud to upload your data. Now explain how two computer/mobile applications communicate?

- (A) Explain process of their communication.
- (B) Is it a point to point file sharing or some other model?
- (C) What is the name of that interface which provides communication between to applications?
- (D) Many applications on mobile phone are communicating with some other devices, how does mobile phone identify that, which message is received for what application? Define required identifications.

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