



VIT[®]
UNIVERSITY
(Estd. u/s 3 of UGC Act 1956)

VELLORE ■ CHENNAI

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School of Computer Science and Engineering

G1+TG1-Slot CAT-II (Sep-2018)

Subject: Security of E-based Systems – BCI3004

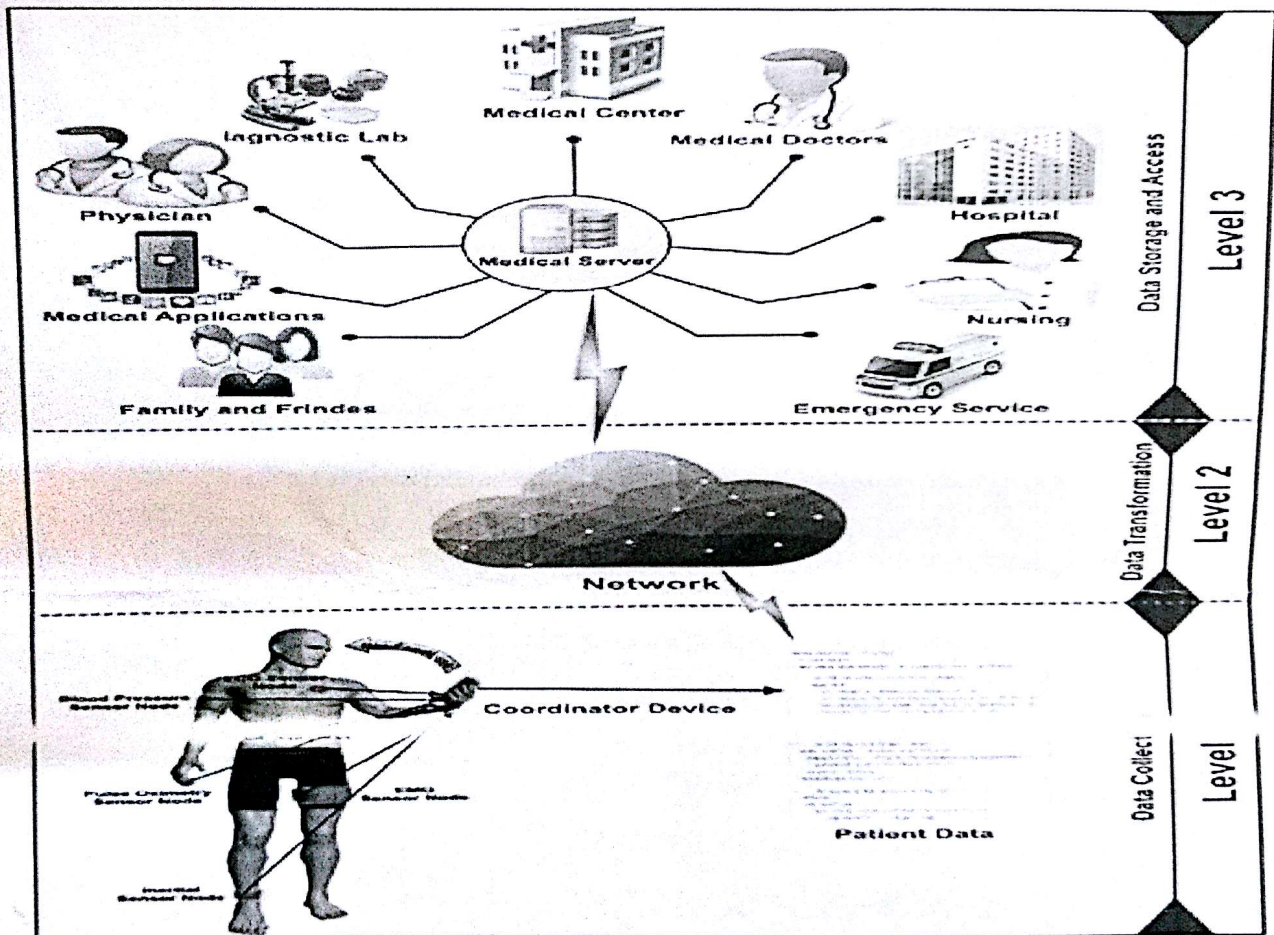
Time: 1 Hr 30 Mins

Max.Marks:50

Answer ALL questions

(5 X 10 = 50 marks)

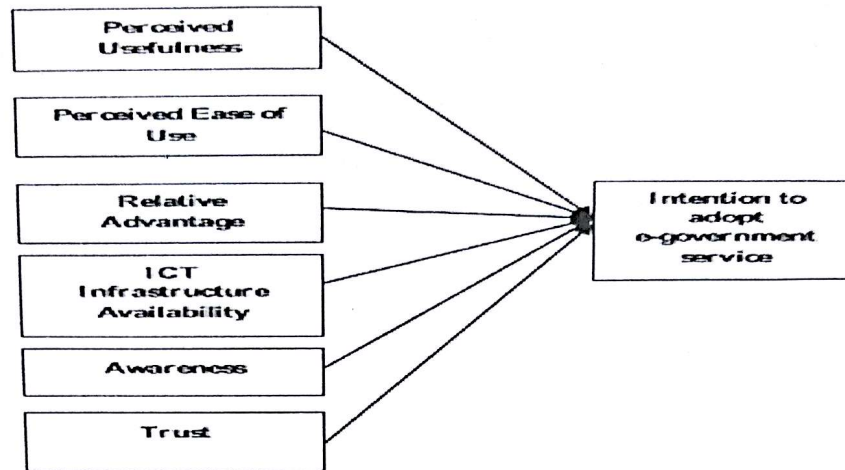
Study the given architecture of the Healthcare Monitoring System



1. (a) Discuss about the several threats to data collection level and transmission level.
(b) Assume that packet sniffing has been done on the above health care monitoring system. What would be the security mechanisms that would be implemented on the system such that in future no packet sniffing attack will happen?

2. HIPAA (Health Insurance Portability and Accountability Act) is a federally-implemented and nationally-applicable standard in the healthcare niche. It is applicable to all entities handling Patient Health Information (PHI). What are a patient's rights regarding PHI?

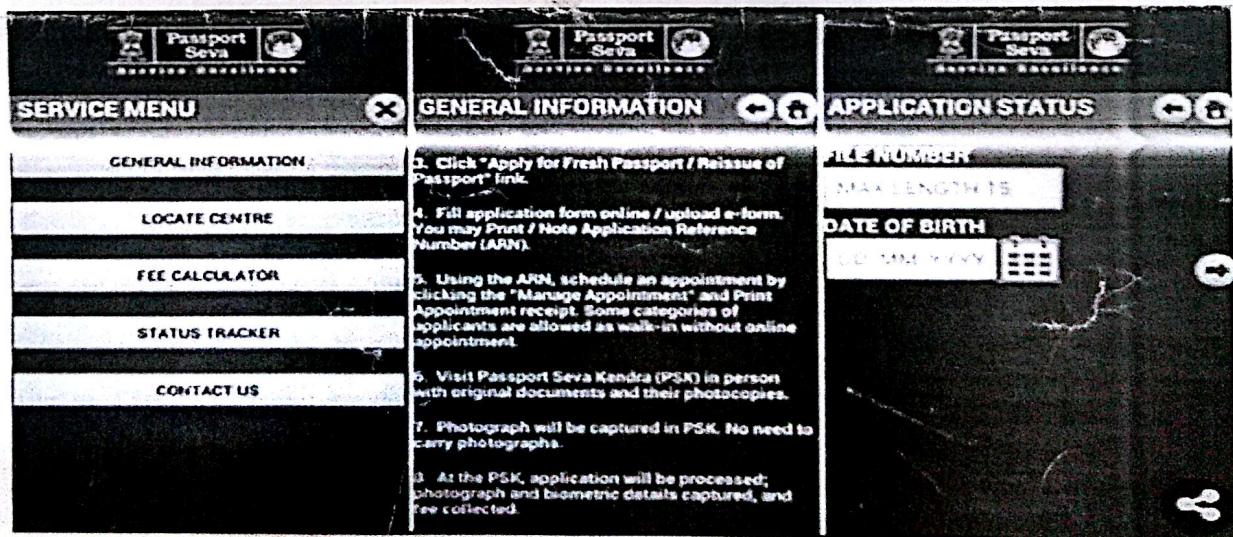
3. Let us assume the Tamilnadu government has initiated a new project for transforming all its health care, insurance services to a new e-governance and m-governance domain. The Government has given this project to company *ORANGE*. The company has proposed the following model for e-governance adoption. Based on the below model,



- Identify the list of technical difficulties that would be faced by the company in the migration
- How the company will prove that the above model will be a trusted model.

4. Describe the techniques that can be used to anonymize records of information with an example.

5. Consider the following mobile APP.



- Assume that hackers hacked the mPassport mobile app by identifying the various vulnerable points. Identify the vulnerable points that would be identified by the hacker?
- As a security specialist identify what could be the possible attacks on the mobile APP.