

Post Graduate Diploma in Management (Hospital & Health Management)

PGDM – 2023-25 Batch

2nd Year – 3rd Semester End Examination

Subject & Code	: Hospital Management Information Systems-HOM 709	Reg. No.:
Semester & Batch	: III, 2023-25	Date : 18-10-2024
Time & Duration	: 10:30 A.M.-01:30 P.M. (3 Hrs.)	Max. Marks : 70

Instructions:

- Budget your time as per the marks given for each question and write your answer accordingly.
 - Don't write anything on the Question Paper except writing your Registration No.
 - Mobile Phones are not allowed even for computations.
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Part A: Q.1 to Q.10 all questions are compulsory (10 X 2 Marks = 20 Marks)

One liner, MCQs, True/False

1. What is a comprehensive technology system that allows hospitals to manage all aspects of operation?
 - a) Health Information System
 - b) Hospital Information System
 - c) Hospital Management Model
 - d) Health Management Model
2. An electronic health record might include information about a patient's _____.
 - a) Height and weight
 - b) All answers are correct.
 - c) Medications and treatment plans
 - d) Immunization history
3. Which of the following is an example of an electronic health record?
 - a) a single record of a medical nature, stored in a filing cabinet
 - b) a complete history of all medical records for a single patient, stored in a filing cabinet
 - c) a single record of a medical nature, stored in a computer program
 - d) a complete history of all medical records for a single patient, stored in a computer program
4. What should be the top most priority for any healthcare organisation ?
 - a) Cyber security
 - b) Data privacy
 - c) Patient Safety
 - d) Business

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5. What is data?
- Basic facts or values
 - Tables used by computers
 - Text and numbers
 - Information
 - Binary digits
6. In which cases can a facility legally share patient information?
- When working with other members of a patient's healthcare team to determine best treatment options.
 - A facility is never allowed to share patient information.
 - When making a legally mandated report or disclosure.
 - A and C
7. When IT and Data processing is Outsourced to Third Party vendors, the responsibility of Data security will
- Still belong to of the hospital
 - Will now belong to the vendor
 - Be that of the Hospital IT manager or whoever has signed the contract.
 - All the above.
8. Which of the following is an example of communication between medical devices and between devices and EMRs?
- The radiologist calls and provides a report on a CT scan performed of the head
 - A hospital administrative clerk collects pertinent data and insurance information in order to provide the insurer with the appropriate bills for services
 - An ECG machine enters data into the electronic record whenever the patient experiences a bradycardia episode
 - Preoperative laboratory data is entered into the EMR so that it is readily available the day of surgery
9. What is the purpose of data interchange standards in healthcare?
- Ease the job of the physicians, nurses, ancillary staff, and hospital administrators so that better quality outcomes can be achieved in a quick manner as well as contribute to a culture of safety
 - Enhance patient satisfaction results
 - Generate more revenue for hospital systems by reducing the number of errors related to data exchange
 - Improve communication between doctors and nurses
10. Which of the following is an example of digital imaging communications?
- A portable chest x-ray is converted to a digital file that the radiologist interprets immediately in the radiology room
 - A patient arrives at his new primary care physician's office with a copy of his medical record
 - A patient receives a bill for an x-ray and cast after suffering a broken arm
 - A ventilator transferring end-tidal volumes to the EMR during surgery

Part B: Q.11 to Q.15 attempt any four questions (4 X 5 Marks = 20 Marks) - Short Notes

11. Enumerate how digital therapeutics can help in disease outcome?
12. Block chain as a digital security tool. Associate its benefit In healthcare?
13. Reducing adverse drug events is a must for patient safety. What should be the basic tables maintained in database to monitor adverse drug events
14. Analyze how Telehealth can be used for addressing mental health issues.
15. Axis hospital is interested in implementing CDSS in its pathology and radiology lab? List three examples of how CDSS can help there?

Part C: Q.16 to Q.20 attempt any three questions (3 X 10 Marks = 30 Marks) - Long Notes

16. The human papillomavirus (HPV) is one of the most common sexually transmitted infections and is linked to six different cancers, including vulvar, vaginal, anal, penile, oropharyngeal, and cervical. The Centers for Disease Control and Prevention (CDC) recommends HPV vaccination for everyone between the ages of 9 and 26 years. Barriers to HPV vaccination are diverse and are often framed by religious objections and medical mistrust. Factors influencing vaccination decisions include pain, fear, risk, parental and social influence. Design a telehealth based intervention your hospital can adopt in the community.
17. RXY a digital health company has teamed up with a Pharma giant to address the pain points of breast cancer through digital therapeutics. Pain, nausea, anxiety, lack of understanding of the treatment, and lack of adherence to treatment are the key points of pain. Also, very often, the feeling of being alone, not being fully connected with the care team. Outline the features to be made available in the intervention.
18. Beta care is a 250 bedded hospital providing geriatric care to the patients. The hospital is planning for a digital transformation to provide quality care to its patients. The strategy that has been adopted is to develop an EMR for geriatric patients. Outline the atleast 10 data other than demographics to be maintained in the EMR and document which module of HIS/ EHR software will generate each data.
19. Tuskan medical college is a premier medical institution catering to a footfall of 15000 patients daily. Recently there was a cyber security related issue faced by the hospital. Two analysts were sacked from the job owing to their negligence. Attackers lurked in the hospital's systems for over 24 hours before the hack, planning their attack. Once they found an administrator account, they could use, they escalated their privileges and pivoted quickly from system to system. Luckily, no data was accessed or acquired, only corrupted or encrypted. The management had set up an enquiry committee and now plans to revamp its entire cyber security under the leadership of a cyber security expert. How will you ensure cyber security for the hospital as an administrator.
20. Plexus hospital is a multi-specialty hospital. To become E-hospital they are planning to use internet of things (IOT) (with & without artificial intelligence). They are in search of use cases where they can utilize IOT. Devise 10 unique use cases for the hospital management here IOT can be used.