

**Post Graduate Diploma in Management (Hospital & Health Management)**

**PGDM – 2023-25 Batch**

**2<sup>nd</sup> Year – 3<sup>rd</sup> Semester End Examination**

<b>Subject &amp; Code</b>	<b>: Clinical Information Systems-HIT 708</b>	<b>Reg. No.</b>	<b>:</b>
<b>Semester &amp; Batch</b>	<b>: III, 2023-25</b>	<b>Date</b>	<b>: 15-10-2024</b>
<b>Time &amp; Duration</b>	<b>: 10:30 A.M.-01:30 P.M. (3 Hrs.)</b>	<b>Max. Marks</b>	<b>: 70</b>

**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.

**Part A: Q.1 to Q.10 all questions are compulsory (10 X 2 Marks = 20 Marks)**  
**One liner, MCQs, True/False**

1. Source Oriented Medical Record (SOMR) can be described as \_\_\_\_\_.
2. Which of the following best describes the hierarchical relationship in clinical care processes?  
A) Checklists > Protocols > Bundles > Pathways > Guidelines  
B) Guidelines > Pathways > Bundles > Protocols > Checklists  
C) Pathways > Guidelines > Bundles > Checklists > Protocols  
D) Protocols > Bundles > Guidelines > Pathways > Checklists
3. Clinical Information System can be defined as \_\_\_\_\_.
4. What does the "Sign In" part of the Surgical Safety Checklist include?  
A) Reviewing recovery concerns  
B) Checking patient identity  
C) Confirming team members  
D) Counting surgical instruments
5. Primary patient record includes \_\_\_\_\_ & Secondary patient record includes \_\_\_\_\_.
6. Which component of CPOE is responsible for real-time patient identification and drug interaction screening?  
A) Patient Safety Features  
B) Ordering component  
C) Billing component  
D) Management component

7. Which type of CDSS utilizes artificial intelligence and machine learning to find patterns in clinical data?
  - A) Knowledge-Based CDSS
  - B) Association-Based CDSS
  - C) Non-Knowledge-Based CDSS
  - D) Rule-Based CDSS
8. What is the full form of PACS? \_\_\_\_\_.  
Define PACS. \_\_\_\_\_.
9. What determines the sharpness of a medical image?
  - A) Color resolution
  - B) Temporal resolution
  - C) Contrast resolution
  - D) Spatial resolution
10. The primary purpose of the Medical Information Bus (MIB) is to \_\_\_\_\_.

---

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

**Short Notes**

---

11. Clinical Information System is visualized as a component based approach. Describe the components of Clinical Information System?
12. A patient was admitted to the hospital in Nov 2023 as a case of Fracture femur. The patient had an uneventful recovery and was discharged from the hospital after 1 week. A relative of the patient approaches the hospital to access the discharge summary and copy of X rays of pre and post operative procedure. Illustrate the medical record access policies for inpatient records. What policies will be consider to provide authorized access to medical records.
13. What is the plan you will consider for recommending compression techniques in medical imaging system of a 200 bedded secondary care hospital with a 5 year old CT scanner.
14. Patient Safety programme is being facilitated in an ICU setting. As a part of transformation, it is proposed that a CDSS should be considered to be incorporated in HMIS. As IT manager of the hospital, demonstrate the advantages and potential harm for applying CDSS for Patient Safety in ICU setting alongwith your solution to mitigate harm.
15. Explain International Classification of Diseases (ICD). A patient underwent a planned Caesarian delivery as advised by the Gynaecologist. A single baby was born. The ICD defines Pregnancy Childbirth and Puerperium in Chapter 18. Single delivery is placed in 22 Character category and JB Block. The character subcategory for elective caesarian is 0. What will be the ICD classification of the case?

---

**Part C: Q.16 to Q.19 attempt any three questions (3 X 10 Marks = 30 Marks)**

**Long Notes**

---

16. (a) What is a Medical Record. What are core essentialities required for an Electronic Record Record ?

(b) A 36 year old female patient arrives in the Outpatient Department with complaints of pain abdomen and burning sensation while passing urine. The Pulse is 90/min, Temp is 99.5 degree F, BP 110/70 mm of Hg, Respiratory Rate is 12/min. She has pain around the urinary bladder in abdomen. A diagnosis of Urinary Tract Infection is made by the physician and he/she plans urinary examination and culture with antibiotic sensitivity. The physician prescribes antibiotics, alkalol and plenty of fluids. Develop a SOAP model from the parameters described above.

17. What is Computerized Physician Order Entry (CPOE). Outline the CPOE workflow for a 45-year-old male patient visiting the Medicine OPD with mild Hypertension. What are decision points you will consider in Reception desk and OPD Coordinator.

18. A 73-year-old male patient is admitted in the Respiratory ward as a case of Chronic Obstructive Pulmonary Disease with Asthmatic exacerbation. Develop the inpatient workflow for the patient using diagrammatic notations from clinical advice for admission to discharge of the patient?

19. As a Health IT manager of a hospital, you are required to provide user requirements for the engineering team to develop a clinical decision support system for the medication management module in HMIS. Describe the summarization of policies to be considered for a medication module in a Knowledge based Clinical Decision Support System (CDSS) for HMIS.