

Post Graduate Diploma in Management (Hospital & Health Management)**PGDM – 2024-2026 Batch****2nd Year – 3rd Semester End Examination****Subject & Code : Clinical Information Systems-HIT 708****Reg. No.:****Semester & Batch : III, 2024-2026****Date : 06-11-2025****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.

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

1. Clinical Information can be described as _____.
2. Intensive care unit is a specific area of hospitals where sophisticated monitoring, _____, specific therapy & _____ is provided for potentially salvageable critically ill patients with life threatening illness or injury (*two of the answers are correct*)
 - A) invasive procedures
 - B) specialized nursing
 - C) titrated life support
 - D) occupational rehabilitation
3. Medical Record can be defined as _____.
4. What does the "Sign Out" part of the Surgical Safety Checklist include ? (*two of the answers are correct*)
 - A) Reviewing recovery concerns
 - B) Checking patient identity
 - C) Instruments and Sponge/needle counts are correct
 - D) Verbally confirm site of surgery
5. Primary patient record includes _____ & Secondary patient record includes _____.
6. Safe medication management is an important component of HMISS And includes? (*two of the answers are correct*)
 - A) look alike sound alike medications
 - B) Monitoring compliance at home
 - C) high risk medication
 - D) home delivery of medication

7. Non Knowledge based CDSS utilizes artificial intelligence and machine learning to find patterns in clinical data? The modalities can include: *((two of the answers are correct))*
 - A) active system
 - B) passive system
 - C) Neural networks
 - D) Support vector machine
8. What is the full form of PACS? _____.
Define PACS. _____.
9. What determines the contrast of a medical image? *(two of the answers are correct)*
 - A) Number of bits for every pixel
 - B) Time necessary to create image
 - C) Number of pixels/image area
 - D) Number of Gray levels
10. What is the function of a Computerized Physician Order Entry (CPOE) system?

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

11. Explain the components of a Clinical Information System and how it integrates with other healthcare subsystems?
12. Active and Passive Systems for Communication under CDSS.
13. What is the plan you will consider for recommending compression techniques to archive medical images of a 200 bedded secondary care hospital.
14. Clinical Management 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 Clinical Management in ICU setting alongwith your solution to mitigate harm.
15. Explain International Classification of Diseases (ICD). A patient has been diagnosed with Respiratory Tuberculosis Confirmed. The ICD defines Certain Infectious and Parasitic Diseases in Chapter 1. Tuberculosis is placed in B Block and Respiratory Tuberculosis under Character category 10. The character subcategory for confirmed Respiratory Tuberculosis 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 an Electronic Health Record and the core essentialities required for an Electronic Health Record ?

(b) A 76 year old male patient arrives in the Emergency Department with history of fall from bed and complaints of pain right hip and inability to move. The Pulse is 100/min, Temp is 99.5 degree F, BP 100/60 mm of Hg, Respiratory Rate is 14/min. She has swelling around the right hip. A diagnosis of Fracture Femur Right is made by the Orthopaedic surgeon and he/she plans X ray Rt Hip AP and Lateral. The Orthopaedic surgeon recommends Open reduction of fracture and Internal Plating. Develop a SOAP model from the parameters described above.

17. The Government of India has contracted your firm to provide Health Management Information System solution for National TB Elimination Program. Discuss the workflow for clinical management of TB patients for the HMIS.
18. Discuss the role of a Computerized Physician Order Entry (CPOE) system in outpatient department of a hospital? Describe a workflow for patients visiting the Outpatient department for consultations using diagrammatic notations?
19. AI and ML are increasingly being incorporated for increasing the accuracy of reporting in diagnostics particularly imaging. Discuss the challenges and barriers to adopt AI for imaging in hospital settings.