

**International Institute of Health Management Research (IIHMR), New  
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**Postgraduate Diploma in Management  
(Hospital and Health) October 2021**

**Course Code Course Name – 701 Introduction to Healthcare IT Standards  
Time: 2 hours Maximum Marks: 70**

**Note:** *Attempt all the questions. The question paper is divided in two parts:*

- *Part A - Short questions (Answer all the 4 questions; 5 marks each)*
- *Part B - Multiple choice questions (Answer all the 30 questions; 1 mark each)*
- *Part C - Long questions (Answer both the questions; 10 marks each)*

**Part A**

- Q1. What is HL7? Enlist the differences between HL7 V2 & HL7 V3.  
Q2. What do you mean by Interoperability? How can we achieve it?  
Q3. Compare the EHR initiatives taken in the United States, Canada and India.  
Q4. What is ICD? Why is there a need to replace ICD-10 with ICD-11, enlist the differences?

**Part B**

1. Which term refers to the ability of a software program to accept, send, or communicate data from its database to other software programs from multiple vendors?
  - a. Continuity of health-care records
  - b. Interprobability
  - c. Interoperability**
  - d. Operational continuity
2. Why do we need Standards?
  - a. Improved interoperability
  - b. Sharing of medical data
  - c. Both**
  - d. None
3. Syntactic standards interpret the meaning throughout. True or False.
  - a. False**
  - b. True
4. Which of the EHR component helps in Order Management?
  - a. Reporting
  - b. CDSS
  - c. CPOE**
  - d. Communication

5. Which of these are the Code/Term Standards?
  - a. ICD-9
  - b. ICD-10
  - c. SNOMED-CT
  - d. All**
  
6. Laterality in ICD-10-CM means:
  - a. Defining the location of the body
  - b. Defining the side – right or left**
  - c. Defining the body system
  - d. None
  
7. Education & Research are the **secondary** uses of an EHR.
  
8. Semantic standards interpret the meaning. True or False.
  - a. True**
  - b. False
  
9. Which of these is the communication standard?
  - a. ISO 10781
  - b. ISO 18308
  - c. EN 13606**
  - d. None
  
10. What is the current version of HL7 V2.x used in the industry?
  - a. 2.31
  - b. 2.7
  - c. 2.8**
  - d. None
  
11. **SNOMED CT / ICD / LOINC / ICF / ICD-O / ICHI (anyone is correct)** is an example of semantic standard.
  
12. Which of the following are the parts in ICF?
  - a. Body functions & structure, Activities & Participation
  - b. Body parts, Activities, Engagement
  - c. Functioning, Disability & Contextual Factors**
  - d. None
  
13. DICOM stands for:
  - a. Digitised Imaging Communication on Medicine
  - b. Digital Integration and Communication on Medicine
  - c. Digital Imaging and Communication in Medicine**
  - d. Digitised Information Communication on Medicine

14. The application entity that consumes the DICOM service is:
  - a. Service Class Provider
  - b. Service Class User**
  - c. Both
  - d. None
  
15. How many categories are there in LOINC:
  - a. 5
  - b. 7
  - c. 4**
  - d. 8
  
16. The first three characters in ICD-10-CM defines the category of the Disease.
  
17. In SNOMED CT the concept myocardial infarction is linked in a hierarchy to myocardial disease. What are these links in SNOMED CT called?
  - a. Concepts
  - b. Description
  - c. Relationships**
  - d. Cross mapping
  
18. SNOMED-CT is comprehensive, multilingual and enhances the interoperability within a healthcare organization.
  - a. True**
  - b. False
  
19. SCTID stands for:
  - a. SNOMED CT Identification
  - b. SNOMED Clinical Terms Identification
  - c. SNOMED Clinical Terms Identifiers**
  - d. SCT Identification
  
20. Standards that focus on communication between multiple systems are known as:
  - a. Security standards
  - b. Transport standards**
  - c. Vocabulary standards
  - d. Content standards
  
21. HL7 / HL7 CDA / DICOM / FHIR (anyone is correct) is an example of syntax standard
  
22. How many delimiters are there in a HL7 V2.x MSH segment?
  - a. 8
  - b. 6**
  - c. 4
  - d. 9

23. WHO's standard which measures health and disability at both individual and population level is:
- ICF**
  - ICHI
  - ICD
  - ICD-O
24. Which of the standard is based on dual model of RM & AOM?
- Architecture standard
  - Communication standard**
  - Security standard
  - Transport standard
25. Which is the 3<sup>rd</sup> level of interoperability?
- Foundational
  - Semantic**
  - Structural
  - Organizational
26. Computer networking is a way of achieving:
- Interoperability
  - System integration**
  - Data transfer
  - All of the above
27. Which of the following is the next generation standard created by HL7?
- HL7 V2
  - HL7 V3
  - CDA
  - FHIR**
28. Give 2 examples of content standards. **HL7 / FHIR/ HL7 CDA / DICOM (any 2)**
29. In the HL7 V2 message structure, 'field' is a part of:
- Component
  - Segment**
  - Header
  - All
30. PID 5 in the HL7 V2 message stands for:
- 5<sup>th</sup> segment in the HL7 message
  - 5<sup>th</sup> component in the PID segment
  - 5<sup>th</sup> field in the PID segment**
  - None

Q1. Explain in detail all the standards maintained by WHO.

Q2. Explain any 2 of the following:

- a. FHIR
- b. Role of EHR in Healthcare
- c. DICOM
- d. Clinical Document Standards