



**Midterm Exam**  
**Second Term: 2022/2023**

Program: Information systems	Course: E-Health	Course Code: IS463
Level: 4	Lecturer: Dr.M.Abdallah	Date: 4/4/2023
Total pages: 4	Total marks: 20	Time allowed: 3 Hour

**Answer the following questions:**

**(20 marks)**

**Question 1 (Select the correct answer)**

1. Medical care is considered as an environment that is unstructured. ~~A. True~~ B. False
2. The social media can sense public health? ~~A. True~~ B. False
3. Unified Medical Language System, Links the major international terminologies into a common structure, providing a translation mechanism between them. ~~A. True~~ B. False
4. Interoperable health IT will improve individual patient care, but it will also bring many public health benefits including early detection of infectious disease outbreaks around the country. ~~A. True~~ B. False
5. Health informatics tools include only computers. ~~A. True~~ B. False
6. Healthcare quality and safety require that the right information be available at the right time to support patient care and health system management decisions. ~~A. True~~ B. False
7. Missing data is one of the largest challenges commonly addressed in clinical risk prediction model studies involving EHR data. ~~A. True~~ B. False
8. Health information technology is the practice of maintenance and care of health records by traditional and electronic means in hospitals, physician's office clinics, health departments, health insurance companies. ~~A. True~~ B. False
9. What are interactive computer programs designed to assist physicians and other health professionals with decision making tasks? ~~a. electronic health records~~ ~~b. clinical decision support systems~~ c. computerized provider order entry d. telemedicine
10. Which of the following is defined as the mobilization of healthcare information electronically across organizations within a region, community or hospital system? ~~A. Health informatics~~ ~~B. Health information exchange~~ C. Health information technology D. Health information management
11. Which of the following information would not be included in a patient's EHR? ~~A. Allergies~~ B. Demographics C. Family history ~~D. All of these are found in the EHR~~
12. Which of the following parties will have access to clinical data via the Internet and use of EHR? ~~A. Patients~~ B. Medical Personnel C. Third-party entities ~~D. All of these~~
13. Which of the following indicates the primary difference between EMR and EHR programs? ~~A. EHR costs exceed that of EMR~~ ~~B. EHR presents a full range of higher-end functionalities not available with EMR.~~ C. EHR is compatible with both Microsoft and MacIntosh, EMR is not. D. EHR is no different than EMR.
14. Which of the following allows the patient access via the Internet to store and update personal medical information and ask questions about prescriptions, appointments, or other medical concerns? ~~A. WebMD~~ ~~B. PHR~~ C. EMR D. HER
15. Providers did not fully utilize EHR technology until recently because ~~A. Lack of standards~~ B. Unknown ROI C. Difficulty in operating EHR ~~D. All of these~~
16. In what ways do EHR provide meaningful improvements with the use of e-prescribing? ~~A. Cost~~ B. Quality C. Patient safety ~~D. All of these~~
17. The acronym TPO refers to which of the following? ~~A. Third Party Operator~~ ~~B. Treatment, Payment, or Operations~~ C. Treatment Provider Organization D. Third Party Organization
18. Which of the following describes factors of the twenty-first century that influenced the transition to EHR?

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- A. Increased instant communication      B. Demand for immediate availability of information  
C. Highly mobile society      ☒ D. All of these
19. Which of the following allows the patient to become an interactive source of health information and health management through an Internet-based connection to the practice website?  
A. WebMD      ☒ B. PHR      C. CCR      D. PMS
20. This EHR model stores patient data on the health information system at a particular healthcare facility or with a third-party hosting company.      A. Distribution-based model      ☒ B. Facility-based model  
C. Web-based model      D. Insurance-based model
21. Which of the following is a way that EHR contributes to patient safety?  
A. Allergy alert systems      B. Drug utilization review      C. Elimination of illegible handwriting      ☒ D. All of these
22. Which of the following processes will not change as a result of implementation of EHR?  
A. Documenting the physical exam      B. Verifying insurance coverage  
☒ C. Examining the patient      D. Distributing patient education materials
23. Which of the following is defined as handheld mobile device that functions as a personal information manager?  
A. EHR      B. PDF      C. EMR      ☒ D. PDA
24. Which of the following identifies a reason why smaller practices demonstrate reluctance in the adoption and use of EHRs?      A. Cost of software and hardware      B. Task of data entry      C. Change resistance      ☒ D. All of these
25. Software content created in a language common and accessible by all EHR is referred to as:  
A. Positive      B. Negative      ☒ C. Neutral      D. Expensive
26. Which of the following errors potentially are eliminated with the implementation of EHR technology?  
A. Medication      B. Transcription      ☒ C. Both of these      D. None of these
27. Which of the following describes a method in which EHRs enhance communication between providers and their staff?      ☒ A. Instant messaging      B. Text messaging      C. Digital dictation      D. Voice recognition
28. In which of the following ways does the implementation of EHRs affect the repetition of labs and tests?  
A. Increases      ☒ B. Decreases      C. No net effect      D. None of these
- ☒ 29. With the use of EHRs, drug recalls are handled efficiently because  
A. The EHR sends automated notices to patients using recalled prescription medications.  
☒ B. They can document which patients currently use specific medications.  
C. The EHR sends automated notices to patients using recalled prescription medications and can document which patients currently use specific medications.      D. None of these are correct
30. What is one benefit of an EHR over paper charts?  
☒ A. EHR is centralized.      B. EHR can become cluttered.      C. Paper charts are always more accessible than EHR charts.      D. EHR cannot be accessed off site.
- ☒ 31. Which of the following can be eliminated with the use of EHRs?  
A. Doctors      B. Clerical and clinical staff      ☒ C. Handwritten notes, orders, and prescriptions      D. All
32. All of the following are benefits of implementing EHRs except:  
A. Access to a patient's medical information is available at the patient's point of care.  
B. The health-care provider can easily be informed of past medical history and family medical history.  
☒ C. EHRs are more time-consuming than paper charts.  
D. The health-care provider can easily be informed and access immunization records.
33. The cost of an EHR includes:      A. The software purchase price, additional computer hardware, and training of staff      B. Customization of the system, ongoing technical support, system maintenance, and future program upgrades  
☒ C. All of these      D. None of these
34. Which of the following allows a patient to make inquiries to their health-care provider?  
☒ A. PHRs      B. LANs      C. Touch and Go      D. Voice recognition systems

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- PHR allows patients to do all of the following except:  
☒ A. schedule appointments  
☐ B. request medication refills  
☐ C. access other patient records  
☐ D. access their lab or radiology results
- PHR is an acronym for which term?  
☐ A. Personnel Health Record  
☐ B. Public Health Record  
☒ C. Personal Health Review  
☐ D. Personal Health Record
7. EMR is an abbreviation for which of the following?  
☒ A. Electronic Medical Record  
☐ B. Emergency Medical Record  
☐ C. Electronic Medical Resource  
☐ D. Electronic Method of Recording
38. Which of the following is not a benefit of EHR?  
☒ A. Little or no training necessary  
☐ B. Enhanced access to clinical information  
☐ C. Improved patient safety  
☐ D. Decreased medical errors
39. The nurse is considering attending a program that focuses on informatics. On which field will the curriculum most likely be based?  
☒ A. Clinical informatics  
☐ B. Public health informatics  
☐ C. Translational bioinformatics  
☐ D. Consumer health informatics
40. The nurse is preparing a white paper, explaining how informatics supports the use of data. Which example should the nurse include that demonstrates a structure for data use?  
☐ A) Care plans  
☐ B) Concept map  
☐ C) Nursing process  
☒ D) Nursing diagnosis
41. At the end of a work shift, the nurse collects vital signs and intake and output measurements from nursing assistive personnel. What are these findings considered to be?  
☒ A) Data  
☐ B) Wisdom  
☐ C) Knowledge  
☐ D) Information
42. A multisystem healthcare organization has many types of big data; What should be done with the data to improve its use?  
☒ A) Supply metadata  
☐ B) Implement discovery informatics  
☐ C) Hire a business intelligence practitioner  
☐ D) Apply a knowledge management system
43. A healthcare organization is planning to use the PARIHS framework to implement evidenced-based practice. Which elements should the organization plan to have for a successful implementation? Select all that apply.  
☐ A) Context  
☐ B) Evidence  
☐ C) Facilitation  
☒ D) All of them
44. A healthcare organization is considering implementing an electronic health record system (EHR). Which software should be included within this system? Select all that apply.  
☐ A) Practitioner order entry (POE)  
☐ B) Clinical decision support (CDS)  
☐ C) Electronic health record (EHR) database  
☒ D) All of them
45. Which of the following HL7 standards include specifications for an application programming interface (API)?  
☐ A) HL7 Version 2.x  
☐ B) HL7 Version 3  
☐ C) HL7 CDA  
☒ D) HL7 FHIR
46. All hospitals with an EHR should follow the principles of EHR governance. A formal, written EHR governance plan is necessary for:  
☐ A. Only large university hospitals that have large information technology staffs  
☐ B. Hospitals that have a chief medical informatics officer who runs the EHR  
☐ C. Hospitals that manage their EHRs, but not those who contract EHR services  
☒ D. All hospitals of whatever size, leadership structure, or EHR design
47. ....Standard to facilitate the exchange of information between healthcare information systems - these specifically define the means to exchange data, not the content  
☐ A. DICOM  
☐ B. HL7  
☐ C. C-CDA  
☒ D. All
48. Which term should be used to explain the entry and retrieval of information at the point of care or wherever it is needed by the healthcare professional?  
☒ A) Smart technology  
☐ B) Computerized order entry  
☐ C) Bar coding systems  
☐ D) Monitoring systems
49. The informatics nurse is preparing a training sheet to be used in orientation. Which should the nurse describe as the protection of information against threats to its integrity, inadvertent disclosure, or availability?  
☒ A) Information security  
☐ B) Survivability  
☐ C) Confidentiality  
☐ D) Privacy
50. A healthcare facility has discovered that data from one patient's chart was placed in another patient's chart, causing both charts to have invalid data. Which information security area does this breach affect?  
☐ A) Survivability  
☒ B) Integrity  
☐ C) Availability  
☐ D) Inadvertent disclosure
51. The system that finds the optimal course of clinical action and answer "What if?" questions is called a(n)

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- A. Dynamic support system      ~~B. Clinical decision support system~~  
C. Expert systems      D. Group decision support systems
52. .. aims to build a community of users, researchers and suppliers, and to disseminate development tools and techniques for building healthcare applications that comply with the highest possible quality, safety and ethical standards. A.MYCN    B. NCBI    C. PDB      ~~D.openclinical.org~~
53. Symbols--> Concepts--> Relationships-->Rules -->..?      ~~A.Models~~      B. Database  
C. datasets      D. Diagnose
54. The Challenges for handling clinical notes?    A. Ungrammatical, short phrases    B. Abbreviations  
C. Semi-structured information      ~~D.All of them~~
55. A systematic population based approach to identify persons at risk, intervene with a specific program of care and measure clinical and other outcomes is called:  
~~A.Disease Management~~    B. Nursing informatics    C. PatientsLikeMe1    D.MYCN
56. What is the definition of EHR?    A. The time and place of care given to the patient from the health-care provider.  
B. A portable, handheld computer, with the ability to document directly on the screen with a stylus pen.  
C. Software capable of voice recognition systems to document patient health insurance information.  
~~D. Software with a full range of functionalities to store, access, and use patient medical information.~~
57. Which of the following is a barrier to the implementation of EHR?  
~~A. Lack of standards~~    B. E-prescribing options    C. Identified ROI    D. Increased patient safety
58. Why did health-care providers perceive EHR systems to lack safety?  
A. The electronic medical record could be altered without his or her knowledge.  
B. Because of possible power outages.    C. Because of possible computer "crashes".    ~~D. All of these.~~
59. One the following which is the most challenging aspect of Natural Language Processing?  
A. Tokenization    B. Parts of Speech Tagging    ~~C. Dealing with ambiguity~~    D. Parsing of a sentence
60. Which of the following is one of the largest challenges commonly addressed in clinical risk prediction model studies involving EHR data?  
A. Evaluation metrics    B. Informative presence    C. Lead time bias    ~~D. Missing data~~

*My best wishes.*