

Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination July 2020

Course: Healthcare Applications and HL71
Program: B.Tech. CSE OSOS
Course Code: CSEG447

Semester: VIII
Time 03 hrs.
Max. Marks: 100

Instructions:

- 1) Section A has 6 Question 5 marks each (Total 30 Marks).
- 2) Section B has 5 question with one internal choice of 10 marks each (Total 50 Marks).
- 3) Section C has one question of 20 marks.

Q1. check if the following statements for true and false? (1x5 Marks)

- a) Standards stimulate competition and drive costs down.
- b) Standardized products cannot be easily replaced or upgraded.
- c) Communication standards allow products from multiple vendors to easily exchange medical information.
- d) Health care models are built around Reference Information Model.
- e) HL7 has ability to parse and/or serialize any standard version of XML to HL7

Q2. Check if the following statements for true and false (1x5 Marks)

- a) HL7 cannot be used in administration of patients
- b) HL7 cannot be used in care planning
- c) HL7 may be used in generating the reports
- d) HL7 can be used in financial management
- e) HL7 has Ability to establish HL7 TCP/IP MLP connectivity

Q3. Fill in the blanks (5 marks total)

- a) There are _____ types of healthcare providers. (1 marks)
- b) Providers should _____ organization. (1 marks)
- c) Acute care healthcare model covers _____, _____ and _____. (3 marks)

Q4. Fill in the blanks (5 marks total)

- a) Registration, ward management, billing and pharmacy are the functionalities provided by ______. (1 marks)
- b) The platform has all the HIS modules with HL7 interfaces _____. (1 marks)

- c) OSS application used in medical areas including viz. autism, prostate cancer is _____ (1 Marks)
- d) Retail clinics are integral component of _____. (2 marks)

Q5. (Multiple choice Questions)

- i) E H R stands for** (1 Marks)
- a) Electronic health record
 - b) Electrical Health record
 - c) Emergency health record
 - d) Enhanced Health record
- ii). Which of the following lie parallel to Technical committee in HL7 structure** (1 Marks)
- a) Only SIG
 - b) Architectural Review Board
 - c) Both a and b
 - d) None of given
- iii). Discharge summary is the component of** (1 Marks)
- a) Medical Record
 - b) Patient Record
 - c) Planning
 - d) All of the above
- iv) . Find odd one out** (1 Marks)
- a) HL7-1 is a protocol
 - b) HL7 is a profitable organization
 - c) HL& works on OSI model
 - d) CDA is version of HL7
- v). CDSS stands for** (2 Marks)
- a) Clinical Decision support system
 - b) Clinical device service system
 - c) Clinical decision support service
 - d) Clinical delivery support system

Q6. (Multiple choice Questions)

- i) Drishti is** (1 Marks)
- a) Used by the CSIRO for volumetric visualization of various computer tomography datasets
 - b) Used for analysis of immiscible flow in massive 3D systems
 - c) Only a
 - d) both a and b

- ii). **Identify the odd one out** (1 Marks)
- a) Open Vista
 - b) Drishti and Osiri X
 - c) Open Vista and Drishti
 - d) Xebra and Care 2X

- iii). **The vendor, OXID eSales, are at the center of the ecosystem.** (1 Marks)
- a) Vendor driven Ecosystem
 - b) Community driven Ecosystem
 - c) Open Source driven Ecosystem
 - d) None of the above

- iv). Examples of tertiary care providers are (1 Marks)
- a) Cardiac centre
 - b) Cancer care
 - c) Both given
 - d) None of given

- v). Major type of health insurance are (1 Marks)
- a) Managed care plans and fee for service plans
 - b) HMO's care plan and PPO's care plan
 - c) PPN and High premium plans
 - d) All a,b,c

Q7. Compare and explain the significance of various Healthcare information standards. Elaborate the approach followed to design them. (10 Marks)

Q8. "HL7 message follows a standard structure". Comment and Elaborate. (10 Marks)

Q9. Discuss in detail the roles and responsibilities of structure of Organizational Model of HL7. (10 Marks)

Q 10. Explain all image and visualization tools available . (10 Marks)

Q11. Differentiate sequence number protocol, continuation protocol and batch protocol (10 Marks)

OR

What is a trigger, trigger event and how are triggers identified (10 Marks)

Q12. Give detailed description of HL7 message structure components and subcomponents with proper syntax and support your answer with example. (20 marks)

