International Institute of Health Management Research (IIHMR), New Delhi

PGDM (HOSPITAL AND HEALTH MANAGEMENT)

(Batch 2022-2024)

RE_SUPPLEMENTARY EXAM (4th Term)
SUPPLEMENTARY EXAM (5th & 6th Term)

HIT 711-Artificial Intelligence in Healthcare-Integrating Biomedical Data

Date: June 27, 2024   **Timing & Duration: 02:30-05:30 P.M. (3 Hrs.)**   **Max. Marks: 100**

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: Say True or False Q. 1 to Q.10 (10 questions*2 marks = 20 marks). All are compulsory

1. Supervised learning methods can be adopted for labeled data

2. Deep learning methods are same as artificial intelligence methods

3. Consent should be taken from the patient before collecting their medical history in hospital

4. Python can be utilized for developing AI based applications

5. Telemedicine can be used for all disease treatments

6. Google Search engine is an example of machine learning based development

7. e-Prescriptions can help in Adverse Drug Reporting

8. Digital therapeutics is evidenced based therapeutic interventions

9. Pubmed can be utilized to download genomic data

10. AI techniques enable researchers to uncover hidden patterns, make accurate predictions, and derive valuable insights from complex biomedical datasets.

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

Short Notes

11. What is supervised and unsupervised learning methods?

12. Give two instances where AI has been used with biomedical data during pandemic?

13. What are the ethical and legal issues in use of AI for analyzing biomedical data?

14. Artificial Intelligence and machine Learning is now the talk of the day in healthcare. But its adoption depends upon its adoption by healthcare workers. What is your perception? How can you make health workers adopt AI based tool.

15. Write short note on annotation using GenBank sequence entry as an example?

Part C: Q.16 to Q.20 (4 questions *15 Marks = 60 Marks) Attempt any four.

A public health intervention is to be carried out in a community with digital intervention for diabetic retinopathy prevention and management. This involves health education to create awareness related to diabetic retinopathy, availability of health services and motivating the community to undergo preventive eye checkup and follow both diabetes and diabetic retinopathy management like taking medicines, regular eye checkup and doctor follow up if any.

16. What steps should be taken for a successful implementation of digital intervention

17. What type of digital interventions can be adopted. Explain briefly.

18. How can AI be used for providing preventive strategies for diabetic retinopathy

19. How have ML algorithms be used in diabetic retinopathy treatment?

20. What are the challenges in use of AI for diabetic retinopathy