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Question Paper Code: UB302

B.E./B.Tech. DEGREE EXAMINATION, MAY 2024

Professional Elective

Biomedical Engineering

21BMV302 - HOSPITAL PLANNING AND MANAGEMENT

(Regulations 2021)

Duration: Three hours

Maximum: 100 Marks

Answer All Questions

PART A - (10x 2 = 20 Marks)

1. List the role of Biomedical Engineers in Hospital. CO1 -U
2. How can good management practices be ensured in hospitals? CO1 -U
3. Mention the importance of Human Resource Management. CO2- U
4. State the principle of HRM. CO2 -U
5. How can marketing research help a company identify and evaluate market opportunities? CO1 -U
6. Define Market Research. CO1 -U
7. Define Clinical Information System. CO1- U
8. How can machine learning and artificial intelligence be applied to Clinical Information Systems to enhance diagnosis and treatment? CO1 -U
9. How can risk management be integrated into the quality system to proactively identify and mitigate quality-related issues? CO1- U
10. How can hospitals ensure that safety rules and protocols are consistently followed by staff to minimize the risk of accidents and patient harm? CO1- U

PART – B (5 x 16= 80 Marks)

11. (a) Explain the essential concepts in Hospital Management. CO1 -U (16)
- Or
- (b) Explain the essential concepts in Bio-Medical Waste Management. CO1 -U (16)

12. (a) Explain the roles and responsibilities of HR Manager in an organization. CO2- U (16)
- Or
- (b) Elucidate in detail about professional development for healthcare employees in the hospital. CO2- U (16)
13. (a) Explain the concept of a research report in the context of market research. What elements should be included in a comprehensive research report? CO1 -U (16)
- Or
- (b) Describe the steps involved in collecting data during a market research study. What are some common data collection methods? CO1- U (16)
14. (a) Discuss the role of IoT devices and sensors in Support Service Technical Information Systems. What design considerations should engineers take into account? CO1 -U (16)
- Or
- (b) Elucidate in detail about the Central Sterilization and Supply department. CO1- U (16)
15. (a) Conduct a medical audit of a specific department to assess the quality of patient care and identify any areas for improvement. What steps would you take to implement the audit's findings and monitor ongoing improvements? CO3-App (16)
- Or
- (b) Perform a hazard assessment of the hospital's surgical suite. Identify potential hazards related to surgical procedures, equipment, and staff practices. How would you prioritize and address these hazards to ensure the safety of surgical patients? CO3-App (16)