

BBA(H) 6th Semester VI Examination, 2021
Subject: System Analysis and Design
Paper: SM-6.1

Time-3 Hours

Full Marks: 80

Candidates are required to give their answers in their own words as far as practicable

Group A

Answer any *six* questions

$5 \times 6 = 30$

1. What are the different types of system? State the characteristics for each. Give realistic example for each.
2. What are the functions of system designer and system analyst?
3. What are the different types of feasibility?
4. What are the components of feasibility study report?
5. Explain the role of cost-benefit analysis in feasibility study.
6. Describe the Prototyping model. What the advantages and disadvantages of Prototyping model?
7. Write a short note on Systems Analysis.
8. How to convert a physical DFD to a logical DFD. Explain with detailed example.

Group B

Answer any *five* questions

$10 \times 5 = 50$

9. COVID-19 pandemic situation is characterized by emergency ambulance system. The pressure on emergency ambulance system has increased drastically in COVID-19 situation due to the increasing number of COVID patients along with the serious patients with other problems. In this system, patients call for the ambulance in case of emergency. Each ambulance has some medical staff for taking care of the patients who are carried to the hospitals where the patients take admission. Each ambulance also keeps some medical equipments in order to handle the medical emergencies. Model this system by an ERD. Use your own assumptions, if any.

10. Define the following with an example for each:
 - a) Weak entity
 - b) Total participation
 - c) Primary key
 - d) One-to-many relationship
 - e) Role indicator

11. Draw a Data Flow Diagram (DFD) for an Emergency Ambulance System in the COVID-19 pandemic situation, for your COVID-19 special private hospital. Identify the entities, files, processes and introduce each of them in brief.

12. Define the following:
 - (a) Model-driven analysis
 - (b) Process design
 - (c) Specialization
 - (d) Multivalued attribute

13. What are the differences between open and closed system? Why is feedback required? Who are the system stakeholders?

14. State the advantages and disadvantages of Waterfall model. Differentiate between Generalization and Specialization with examples.

15. Explain the following:
 - (a) Rapid application development strategy
 - (b) Total Participation
 - (c) Aggregation
 - (d) Model-driven Analysis