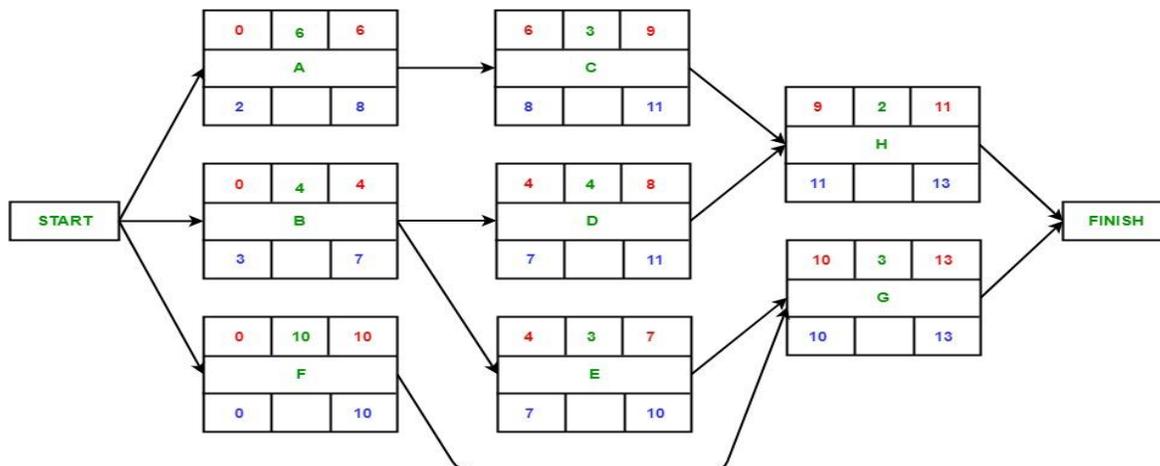


10. Which of the following term is best defined by the statement: “There will be a change of organizational management with different priorities.”? CO5 [K₂]
- a) Staff turnover b) Technology change
 c) Management change d) Product competition

PART B (10 x 2 = 20 Marks)
(Answer not more than 40 words)

11. Write any two software engineering challenges. CO1 [K₂]
12. List out the characteristics of software. CO1 [K₂]
13. Write down the functional requirement for a Library management system. CO2 [K₃]
14. Distinguish between validation and verification process in requirement engineering. CO2 [K₂]
15. What is meant by transaction mapping? How is it used in software design? CO3 [K₂]
16. Differentiate coupling and cohesion. CO3 [K₂]
17. Let us consider an example of any college admission process. There is a college that gives admissions to students based upon their percentage. Consider percentage field that will accept percentage only between 50 to 90 %, more and even less than not be accepted, and application will redirect user to an error page. If percentage entered by user is less than 50 % or more than 90 %, that equivalence partitioning method will show an invalid percentage. If percentage entered is between 50 to 90 %, then equivalence partitioning method will show valid percentage. List out the test cases using equivalence partitioning method. CO4 [K₃]
18. List out the activities during the formal technical review. CO4 [K₂]
19. Find the critical path for the following activity network diagram: CO5 [K₃]



20. Why is code restructuring done? CO5 [K₂]

Answer any FIVE Questions: -
PART C (5 x 14 = 70 Marks)
(Answer not more than 350 words)

21. a) Discuss about the unified process model with relevant example. 7 CO1 [K₂]

- b) List the human factors and roles that are to be inculcated in a SCRUM team. 7 CO1 [K₂]
Explain the SCRUM agile methodology with example.
22. a) Illustrate the need for requirement engineering task. State its process and explain 10 CO2 [K₂]
all the task with proper example.
- b) Differentiate functional and nonfunctional requirements. 4 CO2 [K₂]
23. a) Draw the use case diagram, activity diagram and sequence diagram for hotel 7 CO2 [K₂]
management system
- b) Explain the need of design concepts during the development of good quality 7 CO3 [K₂]
software.
24. a) Discuss about the Transform Mapping with Safe home Software. 7 CO3 [K₃]
- b) Illustrate the different types of architectural styles for software and discuss any 7 CO3 [K₂]
one software architecture in detail.
25. a) Narrate the path testing procedure in detail with the code for greatest of three 8 CO4 [K₃]
numbers.
- b) Explain the different integration testing approaches with examples. 6 CO4 [K₂]
26. a) Consider a project with the following units: 7 CO5 [K₃]
- | Functional Unit | Weighting Factor | | |
|------------------------------|------------------|---------|------|
| | Low | Average | High |
| External Input(EI) | 5 | 7 | 10 |
| External Output(EO) | 7 | 6 | 15 |
| External Inquires(EQ) | 4 | 14 | 6 |
| Internal Logical File(ILF) | 10 | 8 | 15 |
| External Interface File(EIF) | 6 | 7 | 10 |
- Number of user inputs=55, Number of user outputs=45, Number of user enquiries=40, Number of user files=7, Number of external interface=6. Assume all the complexity adjustment factors and Weighing factors are average. Compute the function point for the project. The average productivity for the project is 7.5 FP/pm, labor rate \$9000 per month, Compute the total estimated project cost and estimated effort.
- b) Summarize the different aspects and need for software maintenance. 7 CO5 [K₂]
