

SOFTWARE PROJECT MANAGEMENT
DEPARTMENT OF MCA III YEAR
SUB. CODE: MC7015
QUESTIONS BANK

TWO MARKS: UNIT – I

1. What is software project management?

Software project management is the art and science of planning and leading

software projects. It is sub discipline of project management in which software are planned, monitored, and controlled.

2. What is a project?

A project is defined as:

- A specific plan or design.
- A planned undertaking.
- A large undertaking.

3. List some of the key characteristics of project?

- Planning is required.
- Work is carried out in several phases.
- Non-routine tasks are involved.
- Specific objectives are to be met or a specific product is to be created.

4. List the characteristics of the products of software projects?

- Invisibility
- Complexity
- Flexibility

5. What are the three activity of SPM?

- The feasibility study,
- Planning,
- Project execution.

6. What is feasibility study?

Feasibility study in short is termed as “Learned Lessons”. With the help of collected information, investigation to decide whether a prospective project is worth starting is the feasibility study.

7. What is planning?

It is an act of formulating a program for a definite course of action.

Planning is to decide “what is to be done”.

8. List different stages of project life cycle?

- i. Requirement Analysis.
- ii. Specification
- iii. Design
- iv. Coding
- v. Verification and Validation
- vi. Implementation
- vii. Maintenance and Support.

9. What is strategic planning?

Strategic Planning is an organization’s process of defining its strategy or duration

and making decisions on allocating its resources to pressure this strategy, including its capital and people. It is the process of identifying an organization’s long term goals and objectives and then determining the best approach for achieving those goals and objectives.

10. What is requirement Analysis?

Requirement analysis is defined as finding out in detail what the users require of the system that the project is to implement.

11. What is Design?

Design is the diagrammatic representation of project which we going to do.

Design is the planning that lays the basis for the making of every object or system.

12. What is management?

Management is one which performs the following set of activities such as

planning, organizing, staffing, directing, monitoring, controlling, innovating and representing.

13. How software projects different from other projects?

Software projects are similar to other projects, but have some attributes that

present particular difficulties, for example, the relative invisibility of many of their products.

14. What are the elements of planning approach?

- The establishment of project objectives.
- The analysis of the characteristics of the project.
- The allocation of resources to activities.
- The establishment of quality controls.

16 MARKS QUESTIONS

1. Write short note on contract management/
2. Explain stepwise project planning.
3. Draw Product Breakdown Structure (PBS) and Product Flow Diagram (PED) for online ticket reservation.
4. Draw an activity network fragment of payroll processing of particular department.
5. Explain “information flow and control in organization.
6. Draw and explain project control cycle with its objectives, sub-objectives and goals.

UNIT – II

2 MARKS:

1. What is project evaluation?

It is carried out in step 0 of stepwise. Deciding whether or not to go ahead with a project is really, a case of comparing a proposed project with the alternatives and deciding whether to proceed with it, is termed as project evaluation.

2. What are the 3 criteria project evaluation depends on?

The project evaluation depends on strategic, technical and economic criteria.

3. What is Technical assessment?

Technical assessment of a proposed system consists of evaluating the required functionality against the hardware and software available.

4. What are the two primary steps of cost-benefit analysis?

- a. Identifying and estimating all the costs and benefits of carrying out the project.
- b. Expressing these costs and benefits in common units.

5. What are Development Costs?

It includes the salaries and other employment costs of the staff involved in the development project and all associated costs.

6. What is Net Profit?

The Net profit of a project is the difference between the total costs and the total income over the life of the project.

7. What is payback period?

The payback period is the time taken to break even or payback the initial investment.

8. What is Return on Investment?

The return on investment (ROI), also known as the accounting rate of return (ARR), provides a way of comparing the net profitability to the investment required.

9. What is Net Present value?

The calculation of net present value is a project evaluation technique that takes into account the profitability of a project and the timing of the cash flows that are produced.

10. What is an activity?

An element of work performed during the course of the project.

11. Write the goals of project management?

- Complete the project on time.
- Complete the project within budget
- Meet requirement
- Meet expectations.

12. Write the characteristics of activities.

Label, Size, Source.

13. Name any two external dependencies.

Supplier and stake holders.

14. What are three kinds of interfaces?

Personal, organization, and system.

15. Write the legal issues for project management skills?

- Alternative Dispute Resolution,
- Arbitration
- Negotiation and mediation.

16 MARKS QUESTIONS

1. Explain why discount cash flow techniques provide better criteria for projects election than net profit or return on investment?
2. Identify major risk of your own organization in the pay roll payout.
3. Draw decision diagram for accounting project department with extend and replace.
4. Consider the projects cash flow estimates for four project at your own, Rank the four projects in order of financial desirability and make a note of your reasons for ranking them in that way?
5. Draw and explain a risk analysis profile?
6. Explain risk analysis using decision tree.

UNIT – III

2 MARKS:

1. What is risk management?

Risk management is the procedure that explains the process of managing risk through analysis. This procedure does not provide solution to perceived risks.

2. Short notes on Finish-to-Start (FS) Dependency Relationship?

One activity can start only when the proceeding activity finishes.

3. What is Brainstorming?

Brainstorming refers to the process of a group of colleagues meeting and working collaboratively to generate creative solutions and new ideas.

4. What is Activity-on-Arrow (AOA)?

One representation of network diagram put the activity information on the arrows between the nodes are called an activity-on-arrow representation (AOA).

5. What is Activity-on-Node (AON)?

One representation of network diagram put the activity information on the nodes and is called an activity-on-arrow representation (AON).

6. Name the three forms of presenting a project schedule?

- Table
- Gantt chart
- Network diagram

7. Write any three network diagram methods?

PERT – Program evaluating and review technique.

CPM – Critical path method.

ADM – Arrow Diagramming method.

8. What is a start-to-start relationship?

It means that one activity can start if and only if another activity starts.

9. What are the uses of nominal group techniques?

- Problem solving
- Creative decision making.
- Ideas generating situations.

10. What is critical path?

The path with zero flexibility is called the critical path, because it will have zero float between all of its activities.

11. What is project schedule?

Once the plan has been refined to detail level, then it is called as project schedule.

12. What do you mean by an ideal activity plan?

A plan of when each activity would ideally be undertaken where resources not a constraint is termed as an ideal activity plan.

13. What do you mean by activity-based approach?

The activity based approach consists of creating a list of all the activities that the project is thought to evolve.

14. What is Work Breakdown structure?

This identifies main tasks required to complete a project and then breaking each of these down into a set lower-level tasks.

15. What is product flow diagram (PFD)?

The PFD indicates, for each product, which other products are required

16. What is forward pass?

The network analyzed by carrying forward pass is, to calculate the earliest dates as which activities may commence and the project be completed.

17. What is backward pass?

It calculates the latest start dates for activities and the critical path.

18. What is Free float?

It is the time by which an activity may be delayed without affecting any subsequent activity. It is calculated as the difference between the earliest completion date for the activity and the earliest start date of the succeeding activity.

19. What is risk identification?

It consists of listing all of the risks that can adversely affect the successful execution of the project.

20. What is risk estimation?

It consists of assessing the likelihood and impact of each hazard.

21. What is risk evaluation?

It consists of ranking the risks and determining risk aversion strategies.

22. What is risk control?

It concerns the main functions of the risk manager in minimizing and reacting to problem throughout the project.

23. What is a hazard?

A Hazard is an event that might occur and will, if it does occur, create a problem for the successful completion of the project.

24. What are generic risks?

Some hazards are generic risks, they are relevant to all software projects and standard. Checklists can be used and augmented from an analysis of past projects to identify them.

25. What are the three-step method of PERT?

- a. Calculate the standard deviation of each project event.
- b. Calculate the Z-value for each event that has a target date.
- c. Convert Z value to a probabilities.

16 MARKS :

1. List the major risks that might affect your programming assignment and identify strategies of minimizing each of those risks.
2. If you have access to a project planning computer application, find out whether or not it supports the PERT methods.
3. Explain risk engineering task breakdown.
4. Draw activity table for forward pass and backward pass?
5. Draw activity network using CPM conventions for the development of software project.
6. Explain risks for constructing CPM networks.
7. What is activity planning? List its objectives.
8. Explain different approaches for identifying activities with neat diagram.

UNIT – IV

2 MARKS:

1. What is the purpose of project monitoring and control?

The purpose of project monitoring and control is to keep the team and management up to date on the project's progress

2. What are the different categories of reporting?

- i. Oral – formal – regular
- ii. Written-formal-adhoc
- iii. Written-formal-regular
- iv. Written-formal- adhoc
- v. Oral – informal-adhoc

3. What is BCWS?

- The budgeted cost of tasks as scheduled in the project plan, based on the cost of resources assigned to these task, plus any fixed costs associated with the tasks, called “The Budgeted cost of work Schedule”(BCWS)
- It is the baseline cost up to the status date you choose.

4. What is ACWP?

- The actual cost required to complete all or some portion of the task, up to the status date.
- This is to actual cost of work performance(ACWP).

5. What is BCWP?

The value of the work performed by status date measured in currency. this is literally the value earned by the work performed and is called the budgeted cost of work performed(BCWP).

6. What is cost variance(CV)?

It is the difference between a task's estimated cost and its actual cost .

CV=BCWP-ACWP.

7. What is schedule variance (SV)?

It is the difference between the current progress and the schedule progress of a

task in terms of cost **SV=BCWP-BCWS.**

8. What is cost performance index (CPI)?

It is the ratio of budgeted costs to actual cost.

CPI=BCWP/ACWP.

9. What is schedule performance index(SPI)

It is the ratio of work performed to work schedule

SPI=BCWP/BCWS.

10. What is “ To complete performance index”(TCPI)?

It is the ratio the work done to be done to funds remaining to be spend as of the

status date, or budget at completion. **TCPI=(BAC-BCWP)/(BAC-ACWP).**

BAC=Budget at completion.

11. What is EAC?

Estimated At completion (EAC) is the expected total cost of a task or project, based on performance as of the status date. **EAC=ACWP+(BAC-BCWP)/CPI**

12. What is BAC?

Budget at completion (BAC) shows an estimate of the total project cost.

13. What is TCPI?

To complete performance index (TCPI) is the ratio of remaining available budget

to be spend to the remaining schedules cost **TCPI=(BAC-BCWP)/(BAC-ACWP)**

TCPI>1->Good projected performance for remaining work. **TCPI<1**->indicates poor projected performance.

14. Who is the client and supplies in contract management?

Client is the customer who asks for a contract to work for his project.

Client may

be customer or some times company, which is the client to supplier (controller).

Supplier is one who supplies goods and services may be contractor/company owner.

15. List the steps for process of evaluation?

i) Scrutiny of the proposal documents.

ii) Interviewing supplies is representatives.

iii) Demonstrations.

iv) STR visits. v) Practical tests

16. What are the different types of contracts?

a) Fixed price contracts.

b) Time and materials contracts.

c) Fixed price per delivered unit contracts.

17. What is cost monitoring?

Cost Monitoring is monitoring expenditure for the project. Project costs may be

monitored by a company's accounting system.

18. What is Earned Value?

Earned values analysis, also known as Budgeted cost of work performed.

19. What is contract management?

It is the management of contracts made with customers, vendors, partners or employees.

16 MARKS:

1. Explain error value analysis.

2. At IOE, the management is considering „out-sourcing“ the maintenance accounting system. Write a short memorandum to

management outlining the advantages and disadvantages of such organization.

3. Explain types of contracts?

□ On basis of payment made to contracts.

4. Explain different stages in contract management.

5. Write notes on change control procedures?

6. Explain with diagram for the different ways of visualizing progress.

7. Draw framework for monitoring and control.

UNIT – V

2 MARKS

1. Name the six classes of product domain.

Customer, business, industrial, real-time, really timely, scientific.

2. Write the five processes of Project Management Institute (PMI).

Initiating, planning, executing, controlling, closing.

3. Write the stages of Team Formation Model.

Forming, Storming, Norming, Performing, Adjourning.

4. Differentiate leaders and managers.

Leaders-Set direction, do the righting.

Managers-Follow process, do things right.

5. Give some unites for measuring the size of the software.

Lines of code (LOC), Function points, feature points, number of bubbles on the data flow diagram, number of entities on entity relationship diagram.

6. Write the any two advantages of LOC.

1. It is widely used and universally accepted.

2. LOC is easily measured upon project completion.

7. Write the goal of software project planning?

Software estimates or documented for use in planning and tracking the software project.

8. What is Legacy code?

Code developed for a previous application that is believed to be of use for a new application.

9. What are the characteristics of an organization?

Model, Maturity, Thickness, Size, Structure.

10. Write any five competencies of project management skills.

Documenting plans, estimating cost, estimating effort, managing risks, scheduling, tracking processes.

11. Write any two goals of organizational process focus.

Software process development and improvement activities are coordinated across the organization. The strength and weakness of the s/w processes used are identified relative to a process standard.

12. What is knowledge management?

Knowledge management is the combination of activities involved in gathering, organizing, sharing, analyzing, and disseminating knowledge to improve an organization performance.

13. What is unstructured data?

Unstructured data are the data drawn from meeting discussions, private conversations, textual documents, graphical representations and other “non-uniform” sources.

14. What is structured data?

Structured data are numbers and facts that can be conveniently stored and retrieved in an orderly manner for operations and decision-making.

15. Write some ways to collect information for system requirements.

1. Interviews

2. Questionnaires

3. Examination of documents.

4. On-the-job observation.

16 MARKS:

1. Explain the requirement process.
2. Explain Maslow's hierarchy of needs.
3. Comment on „Selecting the right person for the right job“.
4. Describe different methods of improving motivation.
5. Describe five stages of team development.
6. Explain about decision making.
7. Explain different leadership styles.
8. Explain different Organization structure.