**Prep 3 Exam**

**Q.1 Difference between brainstorming and JAD sessions**

**Brainstorming**

* This can be done either individually or in groups. The ideas collected can be reviewed and where relevant, included within system requirements.
* It can be efficient way for users or stakeholders to define their requirements.
* It is most effective with groups of 8-12 people and should be performed in a relaxed environment.
* It is used in identifying all possible solutions to problems.
* Disadvantage is that people can’t easily brainstorm ideas when required to do so.

**JAD sessions**

* JOINT APPLICATION DEVELOPMENT technique is an extended facilitated workshop.
* It involves collaboration between stakeholders and system analysts to identify needs or requirement.
* It allows simultaneous gathering and consolidating of large amounts of information.
* Discrepancies are resolved immediately with help of a facilitator.
* Disadvantage is that it requires significant planning and scheduling effort and stakeholder commitment of time and effort.

**Q.2 Why Document Analysis is one of the compulsory techniques we use in a Project? Justify**

Document analysis is a key technique for gathering project requirements because it helps identify gaps, constraints and assumptions. It can also help you to understand the current stage of the project and what is needed to achieve the desired state.

Document analysis is used to determine requirements by analyzing the existing documents. This process also identifies the types of information that are important to the requirements. There are numerous types of documents that are analyzed in project management to draw out the important requirements. Document analysis is the process of reviewing and examining documents, such as business plans, policies, contracts, manuals, reports, diagrams, or code, to identify relevant information and requirements for a project

Importance of Document analysis:

1. Uncovers implicit requirement
2. Helps understand the current state
3. Helps identify the gaps
4. Helps identify the constraints
5. Help identify the assumptions

**Q.3 In Which Context we will use Reverse Engineering?**

Reverse engineering is used to understand, replicate or improve a product or a system by analysing its structure and function. Existing products or services offer a great chance for you to gather project requirements through reverse engineering. You need to look at a product that already exists and figure out the fundamentals of what it does and why.

Context:

1. To create replacement parts: When original parts are no longer available reverse engineering can be used to create a replacement part
2. To improve quality: Reverse engineering can be used for improving the quality of the existing product.
3. To identify weakness or discover software vulnerabilities: Reverse engineering can be used to identify weakness and design flaws in a product and discover vulnerabilities and security flaws in a software.
4. To enhance security or to understand enemy technology: Reverse engineering can be used to gain a strategic advantage by enhancing the security of a product and studying captured enemy technology.
5. To learn how to build a product or develop a similar product.: Reverse engineering can be used to learns how to build a product.

Reverse engineering is used in games and game engines, automobiles, aerospace and consumer goods.

There are 2 categories of reverse engineering

1. Black box - The system or product is studied without examining its internal structure.
2. White box - the inner working of the system or product is studied.

**Q.4 What is the difference between Brainstorming and Focus Groups?**

**Brainstorming:**

Brainstorming can be done either individually or in groups. It is most effective with groups of 8-12 people and should be performed in a relaxed environment sharing new ideas.

 Brainstorming can be an effective way to generate lots of ideas on a specific issue and then determine which idea or ideas is the best solution.

Brainstorming is used in identifying all possible solutions to problems and simplifies the detail of opportunities.

**Focus Groups:**

A focus group is a means to elicit ideas and attitudes about a specific product, service or opportunity in an interactive group environment. The participants share their impressions, preferences and needs, guided by a moderator. It typically has 6-12 attendees.

The topic of focus group will influence who should be recruited. If the topic is a new product, it is likely that existing users (experts) should be included. There are two compositions:

Homogeneous – individuals with similar characteristics

Heterogeneous – individuals with diverse backgrounds, perspectives.

**Q.5 Observation technique –Explain active and passive approaches**

Observation technique can provide information of existing processes, inputs and outputs. It is useful when the user is not able to clearly explain what they do for the new system.

* **Active approach** - this is visible approach where the BA may dialog with the worker while observing the current process. The BA can ask questions right away even if it breaks the routine of the person being observed. BA may even participate in the work to gain immediate appreciation.
* **Passive approach** - this is invisible approach where the BA observes the SME working but does not ask questions. He writes notes or stays away as if he is invisible. He waits until entire process is complete before asking any questions.

**Q.6 How do you conduct requirements workshop?**

Requirements workshop is a structured approach to capture requirements. It may be used to scope, discover define, prioritize and reach closure on requirements for the target system.

**Steps to conduct requirements workshop: -**

**Prepare for requirement workshop**.

* Clarify stakeholders needs
* Identify critical stakeholders to participate.
* Define workshop’s agenda
* Determine the means to use in the workshop.
* Schedule sessions.
* Arrange logistics and equipment.
* Send materials in advance.
* Conduct pre-workshop interviews.

**Co-Conduct requirement workshop**.

* Elicit the requirements.
* Obtain consensus on conflicting views.
* Maintain focus on the objectives.
* Establish professional tone and discipline for the meeting.
* Introduce goals and agenda
* Manage meeting and keep team on track.
* Facilitate process of decision making.
* Ask the right questions.

**Post requirement workshop wrap-up.**

* Follow up on any open action items that were recorded at the workshop.
* Complete the documentation and distribute to attendees and sponsor.

**Q.7 In which context, Interview Technique can be conducted by a BA? How may approaches are there in conducting Interviews? (Structured – Unstructured) Explain them. Explain the difference between Open Ended Questions and Closed ended Questions**

An interview is a systematic approach to elicit information from a person or group of people in a formal or informal setting by talking to the person, asking relevant questions and documenting the responses.

Interview of a stakeholder and user is important to create software. Without knowing the expectations and goals you cannot satiate them. Like a good reporter listening is a quality that assists an excellent analyst to gain better value through an interview. Interviews provide an opportunity to explore or clarify topics in more detail.

Disadvantage is that it does not allow different stakeholders to hear and elaborate upon information being relayed. Also it can be time consuming and inefficient with projects with large number of stakeholders.

**Difference between structured and unstructured interview: -**

Structured interviews are more formal, with little room to give creative answers. But unstructured interviews are flexible, more informal and free-flowing. Structured interviews are standardized while unstructured interviews are personalized.

**Difference between open ended questions and close ended questions:**

**An open-ended question** is a question that has a long response. Open ended questions are usually asked with the intention of getting to know opinions and ideas of the respondent. They require thinking and reflection; an answer to an open question is often descriptive and explanatory. Open ended questions usually begin with words like how, why, what, and describe.

**Close ended question** is a question that can be answered with a single word or a short phrase. Sometimes, a close ended question is also defined as a question that can be answered with yes or no.

**Q.8 Questionnaire technique: Where will we use? Give one example**

Questionnaire can be useful for obtaining limited system requirements details from users / stakeholders, who have a minor input or are geographically remote. The design of the questionnaire and types of questions are important and can influence the answers, so care is needed.

Questionnaires can be thought of as a kind of written interview. They can be carried out face to face, by telephone, computer or post. Some examples of a questionnaire are: Customer Satisfaction Questionnaire: This type of research can be used in any situation where there's an interaction between a customer and an organization. For example, you might send a customer satisfaction survey after someone eats at your restaurant.

Disadvantage is that it can be slow to create. You may not get a good response as following questionnaires is often low priority for many people.

**Q.9 How to sort the requirements? Where will we use? Give one example**

It is the process in which scattered requirements are put together and redundancy is removed. The inter-related requirements are linked.

Key tasks are -

* Define stakeholder’s needs.
* Identify business needs and divide them into functional and non-functional requirements or technical and non- technical requirements
* Create group of similar requirements.
* Create supporting artifacts.

Example: A system loads a web page when someone clicks on a button. This is a functional requirement and related nonfunctional requirement specifies the time taken by the web page to load.

**Q.10 Priorities the Requirements – –Where we will use? Give one example**

Prioritize requirements is the technique for queuing the requirements for the development process. The 3 main actors here are developer, customers and business owners. The factors that influence priority are importance, risk, cost, benefit, time and strategy.

MoSCoW is a prioritization technique used to reach a common understanding with stakeholders on the importance they play on the delivery of each requirement.

M- Must have this requirement to meet the business needs.

S- Should have this requirement if possible but project success does not rely on it.

C- Could have this requirement if it does not affect anything else in the project.

W- Would like to have this requirement later, but it won’t be delivered this time.

Example: in a software development login is a must have, search comes under should have which means the project success does not rely on this. Then sharing any update on the social media option comes under could have as it will not affect anything else in the project and lastly in won’t have will come the feature of projector in a mobile.

**Q.11** **Weekly status reporting – How we will drive?**

Weekly status report is a summary of all work done during a week and how these activities contributed to the completion of a task or a project, or how each one brings the team closer to the achievement of their targets. It is also a helpful tool for the manager to monitor the performance and progress of his team.

A weekly status report is one of the best ways to communicate with your team as a project manager or team lead.

As the project manager/team lead, you will have to:

* Connect your team.
* Learn best practices for weekly reports.
* Get your team members to sign-in.
* Review your team' check-ins and status.

**Q.12 Meeting Minutes Document – prepare one Sample**

 Meeting minutes are notes that are recorded during a meeting. They highlight the key issues that are discussed, motions proposed or voted on, and activities.

7 things to include when writing meeting minutes

1. Date and time of the meeting.
2. Names of the participants.
3. Purpose of the meeting.
4. Agenda items and topics discussed.
5. Action items.
6. Next meeting date and place.
7. Documents to be included in the report.

|  |
| --- |
| **Project Meeting minutes** |
| **Scrum foods project** | **17-01-2025** |
| **Attendees** | **Project Status updates** |
| 1. BA | Finished : |
| 2. PM | In process:  |
| 3. Stake holder 1 |   |
| 4. Stake holder 2 |   |
|   |   |
| **Issues and concerns** | **Milestones** |
| 1. search option not working | 1. Rating option working successfully |
| 2. xxxxx | 2. xxxx |
| 3. xxxxx |   |
|   | **Action items**  |
|   | 1. Developent team work on search option |

**Q13 Change Tracker – Document - – prepare one Sample**

It is also called as change log document. It contains the list of changes that are made during the entire project management design. It tracks the progress of each change based on its review, approval or rejection, implementation as well as closure. The change log also contains the date of change and its impact on the project in terms of the risk, time as well as cost. Rejected changes are also included in change log.

The change log can easily be managed by using manual methods such as documents or spreadsheets.

This document is necessary to encourage the development of corrective action plans as well as manage and control the changes. The document is also used as an input to manage the stakeholder’s engagement during the entire project management process.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Scrum foods Project** |  |  |  |  |
|  |  |  |  |  |  |  |  |
| **Sr No** | **Change ID** | **Change description** | **Requester** | **Date raised** | **Decision** | **Approved by** | **Decision date** |
| 1 | ID1 | Add coupons option | Stake Holder | 15-01-2025 | Approved | PM | 17-01-2025 |
| 2 | ID2 | xxxx | Xx | xx | Pending | xx | xx |
| 3 | ID3 | xxxx | Xx | xx | Open | xx | xx |
| 4 | ID4 | xxxx | Xx | xx | Rejected | xx | xx |

**Q.14 Difference between traditional development model and agile development models**

Waterfall model is a traditional model which follows a structured approach with each phase having specific deliverables. At the end of each phase a review takes place to determine if the project is running fine. The output from the first stage serves as input for the next phase. We cannot go back in these stages Waterfall model works well for smaller projects where requirements are very well understood.

Advantages:

* Simple and easy
* Easy to manage
* Works well for small projects
* Results are well documented

Disadvantages:

* Risk and uncertainty
* Not for big and complex projects
* Not for projects where requirements are changing

Whereas, AGILE model is a light weight model that can be implemented where faster delivery is required. There are four main values and twelve principles of agile software.

The code in itself forms as documentation. Does not support scalability and extendibility. Whatever is the output is deployed and take the feedback from customer and apply the changes in next iteration. Means right from beginning it delivers something.

Advantages:

* early bug fixes improve good quality
* less likely develop features which are no longer required
* regular prioritization of task
* better visibility to stakeholder about the project

Disadvantages:

* documentation can be neglected
* team must be knowledgeable
* planning can be less concrete
* time commitment from developers is required

**Q.15 Explain Brainstorming Technique – Where to use?**

Brainstorming can be done either individually or in groups. The ideas collected during the brainstorming session are reviewed or analyzed. Brainstorming is an effective way to generate lots of ideas on a specific issue and then determine which idea is the best solution.

It can be an efficient way for users or stakeholders to define their requirements. It can be an effective way to generate lots of ideas on a specific issue and then determine which idea is the best solution. Most effective with group of 8-12 people and should be performed in a relaxed environment.

Brainstorming is utilized in requirements elicitation to gather good number of ideas from a group of people. Usually, it is used in identifying all possible solutions to problems and simplifies the detail of opportunities.

* General TTS Company is a multinational Company giving services on Software development in the BFSI Vertical. They have multiple products available. They have Research and Development Wing, which continuously try to improve the Quality of the products and innovation is their USP, this is helping TTS Company to be in Top 10 List. TTS Company came up one initiative to help their Employees with Loans based on their eligibility. To support this cause, they proposed the development of Employees Loan Management System. The Employees Loan Management System will help an organization to manage a loan for its employees online in an efficient way. Employees can request loans, which will be reviewed by the HR and Accounts departments and then loans will be approved or rejected. In case, the loan is rejected, the employee will be informed of the reason for loan rejection. However, in the case of loan approval, Loan approval terms and conditions, the loan repayment schedule will be provided to the employee. If the employee will agree with the loan offer, terms and condition, and repayment schedule, the loan will be granted to the employee and automatic deduction from employee salary will be made.

**Q16.** **What reports Accounts Departments will generate (minimum 5 reports)**

* Profit and loss statement
* Balance sheet
* cash flow statement
* Statement of retained earnings
* Accounts receivable aging
* Accounts payable aging
* Income statement

**Q.17 What is the structure of the message/mail communicated from the HR department to the employee in case the Loan is rejected?**

Mr. XYZ

(Deputy Manager)

(TTS company, Bangalore)

Subject: Loan Rejection letter

Dear XYZ,

This letter is to inform you that we regret to reject your loan application of Rs. ---. After a thorough review of your application and the supporting documents you supplied. We have concluded that your current financial situation precludes this institution from extending further credit to you at this time. When your financial picture changes and your current level of risk exposure becomes lower, we would be happy to reconsider your application.

We hope that you will understand and your application would be accommodated later.

With regards,

HR head,

(TTS Company)

**Q.18 What is the structure of the message/mail communicated from the HR department to the employee in case the Loan is approved?**

Mr. XYZ

(Deputy Manager)

(TTS company, Bangalore)

Subject: Loan approval confirmation (application no ……dated….)

Dear XYZ,

We refer to the above request for personal loan for rs…… (amount in words).

We are pleased to inform you that your loan request has been approved. And we will be releasing the amount of (Rs amount), to your salary account on (date).

We are sure you will be agreeing that your consistent performance, dependability and overall contribution have helped me immediate approval of your request.

Please arrange the following documents before (date), to complete the disbursement process.

Document1,

Document2,

Document3.

The loan recovery will start from (date), and will reflect in your salary slip as a deduction. The last installment for your loan will be on (date).

The company is glad we could support you in the time of your need, and looks for your continued consistent performances moving forward.

Attaching herewith, the terms and conditions letter.

With regards,

HR head,

(TTS Company)

**Q.19 Design a sample report on the Loans applications Received by the accounts department**

Dear employee,

We are pleased to inform you that, we are having different types of loans available for you according to your need.

* Two-wheeler loan
* Car loan
* Home loan
* Personal loan
* Mortgage loan
* Education loan

Please feel free to enquire about your need.

You can contact us on our mail id accountsdepartment@tts.com

**Q.20 Which reporting Tools we will use for generating reports.**

1. **Tableau**

Tableau is a data visualization application to facilitate you to examine virtually any kind of structured data and generate highly interactive, beautiful graphs, dashboards, any reports within minutes.

Tableau is a business intelligence tool.

It simplifies the raw data into a very easily understandable manner.

**Features of Tableau**

* Collaboration of data
* Data blending
* Real-time analysis
* Very easy to utilize
* Don’t have to be familiar with programming of any sort, all you require is a few data and tableau to generate reports
* It has a drag and drop feature

**Strengths**

* Speed
* Ease of use
* Beautiful and interactive dashboard
* Direct connection
* Easy publishing and sharing
* Growing market

**Tableau product suite**

* tableau desktop
* tableau public
* tableau server
* tableau online
* tableau reader
1. **POWER BI**

Power BI is a business intelligence tool which will help to analyze data, to clean data and convert that data into visual format, where we can create different reports and different dashboards.

It is a most popular business intelligence tool.

It is easy to learn and use. It is a complete automation of manual task.

It is available in cheapest price.

Power BI is a collection of components.

* Power Query – it is a tool which will extract, transform and load the data. It is for cleaning the data.
* Power pivot – it is used for data modeling. When we have multiple data sources it will connect them.
* Power view – it is used for visualization. It is help with 250+ charts. These charts are helpful for presentation, reports, visualization.
* Power BI service – it will help the users to communicate all across the world**.**

 **\*END\***