

## Practical 4 : Railway Reservation System.

ID	Test Case	Steps	Expected	Actual	Result
01	Mobile login.	Enter 10 digit no. with (7-9)	should send OTP on no.	Sends OTP on that no.	Pass.
02	Recieve OTP	1) Enter valid no. 2) Enter OTP	Mobile registered	Mobile is registered	Pass.
03	Email login	Enter [*@*.*] format mail	should send OTP on mail	sends OTP on mail.	Pass
04	Recieve link	Enter valid mail Enter OTP.	Mail registered	Mail is registered	Pass.
05	Ticket booking (From)	Open Ticket and enter address in from	Entered location must selected	Entered location is selected	Pass.
06	Ticke booking (To)	Open Ticket and enter address in To.	Entered location must be selected	Entered location is selected	Pass.
07	Availability of trains.	Enter From and To and after filling address click enter	All available trains for next 45 days will be visible	All available trains for next 45 days are visible	Pass.

## \* Practical Related questions :

1) Give significance of testing in RRS.

→ 1) Searching of trains is so easy :

It is very much easy to search for the train wished without having to remember its train code or train number, rather just enter source and destination.

2) Provides Fare table for passengers :

A fare table is already available so the passengers can know the price for their ticket.

3) Reduce the possibility to make mistake :

Due to excessive work it is only human to make mistake. Here the chances of mistake is next to none.

4) Reservation is a piece of cake :

The overall method is easy and based on a few steps.

No huge amount of knowledge is required to complete the task.



2) What are different test methodologies that shall be applied to RRS?

→ 1) Unit Testing: As each and every module should work correctly.

2) Integration Testing: As module should interact with each other correctly.

3) System Testing: As the system as whole should function correctly.

4) Performance Testing: A lot of users are going to use the site simultaneously and it should be able to handle it.

5) Security Testing: As there is a shit load of transactions in this website user should not lose his/her money due to some virus.

3) Give significance of system Testing in RRS.

→ System Testing :

System testing is a black box testing method used to evaluate the completed and integrated systems, to ensure it meets specified requirements. The functionality of software is tested from end to end and is typically conducted by a separate testing team than the development team.

Significance : As the success of a website depends how on whether it fulfils user requirements or not System Testing plays a big role in ensuring that. If the whole system works well, like user is able to book reservations, cancel reservations view fare etc very easily. He/she will be inclined to use the website.

## \* Exercise :

1. Prepare test cases to check availability of train from Mumbai to Delhi in next 5 days.

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ID	Test Cases	Steps	Expected	Actual	Result.
01	Ticket booking.	1) Enter 'Mumbai' in 'From'. 2) Enter 'Delhi' in 'To'. 3) Enter '5' in no. of days of train.	All the trains available according to search must be displayed.	All the trains available according to search are available	Pass.



2) Generate Test cases for user validation on RRS.  
→

ID	Test Cases	Steps	Expected	Actual	Result
01	Mobile login	Enter 10 digit no. with (7-9)	should send OTP on no.	Sends OTP on no.	Pass.
02	Receive OTP	1) Enter valid no. 2) Enter OTP	Mobile no. registered	Mobile no. registered	Pass.
03	Email login	Enter [*@*.*] format mail.	Should send link on mail.	Sends link on mail.	Pass.
04	Receive link.	Enter valid mail Click on link.	Mail registered	Mail is registered	Pass.

4) Execute Test cases of Q2.

a) Enter invalid mobile no. with 7-8 digits

→

ID	Test Case	Steps	Expected	Actual	Result
01	Mobile login	Enter 7-8 digit no.	Invalid no.	Invalid no.	Pass.

b) Enter your email with @.

→

ID	Test Cases	Steps	Expected	Actual	Result
01	Email login	Enter [*.*] format	Invalid mail.	Invalid mail.	Pass.

## Practical 5 : Validate login for E-commerce.

ID	Test Cases	Steps	Expected	Actual	Result
01	Mobile login.	Enter 10 digit no. with (7-9)	Should send OTP on no.	Sends OTP.	Pass.
02	Receives OTP	1) Enter valid no. 2) Enter OTP.	Mobile registered.	Mobile is registered	Pass.
03	Email login	Enter [*@*.*] format mail.	should send link.	Sends link.	Pass.
04	Receives link.	1) Enter valid ID. 2) Click on link.	E-mail registered	Email registered	Pass.
05	Example of mobile login.	Enter 7972604463 as mobile no.	Should send OTP on 7972604463	Sends OTP on 7972604463	Pass.
06	User receives OTP.	1) Entered valid no. 2) Enter OTP.	No. 7972604463 registered successfully.	Mobile is registered	Pass.
07	User Email login	Enter gaurav12@gmail.com	Should send link	Sends link	Pass.
08	Receives link.	Click on link on gaurav12@gmail.	E-mail registered	Email registered	Pass.



## \* Practical Related Questions :

1) What are security related threats for E-C ?

→ Major E-commerce Security Threats are :

1) Financial Frauds.

2) Spam.

3) Bots.

4) DDOS Attacks.

5) Brute force Attacks.

6) SQL injections.

7) XSS.

8) Trojan Horse.



2) List different authentication protocols.

→

An authentication protocol is defined as a computer system communication which may be encrypted and designed specifically to secure transfer of data.

- 1) Password Authentication Protocol.
- 2) One Time Password Protocol.
- 3) Time-base One Time password Protocol.

3) Describe various encryption techniques.

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- 1) AES (Advanced Encryption Standard)
- 2) Blowfish Encryption.
- 3) RSA Encryption.
- 4) Triple DES Encryption.
- 5) Twofish Encryption.
- 6) DES Encryption.
- 7) IDEA Encryption.

## \* Exercise :

1) Prepare test cases to register yourself on EC.  
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ID	Test Cases	Steps	Expected	Actual	Result.
01	User login.	1) Enter 797260448 2) Click enter 3) Enter OTP. 4) Enter gaurav12@gmail.com. 5) Click enter 6) Click on link.	User must be logged in successfully.	User is logged in successfully.	Pass.

2) Generate test cases to validate user credentials  
→

ID	Test Cases	Steps	Expected	Actual	Result.
01	Mobile no.	1) Enter 10 digit no with two initials (7-9)	Valid Indian Mobile no.	Valid Indian Mobile no.	Pass.
02	Email ID	1) Enter [**@**.*] format Email ID.	Valid E-mail ID	Valid Email ID	Pass.



## Practical 6 : Test functionality of website.

ID	Test case	Steps	Expected	Actual	Result
01	Functionality of Activities Page.	1) Open website 2) Click Menu. 3) Click Activities	Activities should be displayed.	Activities are displayed.	Pass.
02	Get info about HOD.	1) Click Menu. 2) Click Department 3) Click on HOD.	Info about HOD must be displayed.	Info is displayed.	Pass.
03	Get Info of Academics.	1) Click Menu. 2) Click Student 3) Click Academics	Academics Info must be displayed.	Info is displayed.	Pass.
04	Get Info of News and Events.	1) Click Menu. 2) Click Student 3) Click on News and Events.	All the news and Events must be displayed.	Info is displayed.	Pass.
05	Get Info for admission process.	1) Click Menu. 2) Click Student 3) Click on Admission.	All the process of admission and link must be displayed.	All the Info is displayed.	Pass.

## \* Practical Related Questions.

1) Give significance of performance & stress testing.  
→

### 1) Performance Testing :

Performance testing is a functional testing technique used to determine how an application will behave under various conditions. The goal is to test its responsiveness and stability in real user situations.

### 2) Stress Testing :

Stress Testing takes this a step further and is used to gauge how your software will respond at or beyond its peak load. The goal of stress testing is to overload the application on purpose until it breaks by applying both realistic and unrealistic load scenarios.



2) What is necessity of Configuration Testing?  
→

Configuration Testing :

Configuration Testing is defined as a software testing type, that checks an application with multiple combination of software and hardware to find out the optimal configuration that the system can work without any flaw or bugs.

3) Describe various security testing to be performed for web application.

→

Security Testing :

With the rise of cloud based testing platforms and cyber attacks there is a growing concerns and needs for the security of data being used and stored in software. Security testing is a non-functional software testing technique used to determine if the information and data in system is protected.



## \* Exercise.

1) Prepare test cases to test your college website for any 5 links.

→

ID	Test Case	Steps	Expected	Actual	Result
01	Functionality of Activity Page.	1) Click Menu. 2) Click Activity.	Activity Page is loaded.	Activity Page is loaded	Pass.
02	Functionality of About HOD.	1) Click on Menu. 2) Click Department. 3) Click on HOD.	HOD info is loaded.	HOD info is loaded.	Pass
03	Functionality of Academics.	1) Click on Menu. 2) Click on Student 3) Click on Academics	Academics Page is loaded.	Academics Page is loaded	Pass.
04	Functionality of News and Events.	1) Click on Menu. 2) Click on Student 3) Click on News and Events.	News & Events Info is loaded.	News & Events Info is loaded	Pass.
05	Functionality of Admission Process.	1) Click on Menu. 2) Click on Student 3) Click on Admission.	Admission Info is loaded.	Admission Info is loaded.	Pass.



3) Execute above test case created in Question 1 by performing appropriate operations and verify results.

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All the test cases for the functionality of the website work correctly and hence their results can be considered as pass.