

SSC JE Recruitment Syllabus 2024 - Subject Wise Topics Weightage

If you are aiming to secure a government job in the field of engineering, then this is the best opportunity for you. The **Staff Selection Commission**

(SSC) released the

official SSC JE Notification 2024

on 28th March 2024. To ace this exam you must have a complete understanding of the SSC JE Recruitment Syllabus 2024. In this blog, we have provided you with the SSC JE Recruitment Syllabus 2024. From syllabus to exam pattern to important dates, we have got you covered with every information you need. So, let's begin!

SSC JE Recruitment Syllabus 2024 - Overview

How about we provide you a list of every subject you need to prepare for at a glance before we go into a thorough analysis of the SSC JE Recruitment Syllabus 2024? You can find an overview of every topic you need to discuss in the image below. Have a look!



SSC Junior Engineer SYLLABUS



Paper 1



Paper 2

PAPER 1 SYLLABUS

General Intelligence & Reasoning

General Knowledge & Awareness

General Engineering

*(Civil/ Electrical/ Mechanical)

PAPER 2 SYLLABUS

General Engineering

*(Civil/ Electrical/ Mechanical)

[Source: KD Live]

We hope the infographic above has given you a clear understanding of what to focus on according to the SSC JE Recruitment Syllabus 2024. Now, let's dive into a detailed discussion of each of these elements.

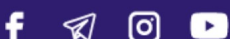
Download SSC JE Recruitment Syllabus 2024 PDF

Understanding the need for a convenient and all-inclusive resource,

KD Live

proudly offers a specially designed downloadable PDF that details the topic-wise weightage for your SSC JE exam 2024 preparation. This invaluable tool is crafted for those determined to excel in the upcoming SSC JE exam. Consider this blog your guide, providing strategic insights and a roadmap to help you navigate the

Follow us on



Address : 1997, Mukherjee Nagar, 110009

Email : online@kdcampus.org

Call : +91 95551 08888

Download the App



SSC JE Recruitment Syllabus 2024 - Subject Wise Topics Weightage

The subjects covered in SSC JE Paper 1 are as follows:

- General Intelligence and Reasoning
- General Knowledge and Awareness
- General Engineering
 - Civil and Structural Engineering
 - Electrical Engineering
 - Mechanical Engineering

Keep in mind that the last three subjects under General Engineering will be based on your specific engineering degree.

SSC JE Recruitment Syllabus 2024 - Paper 1

As discussed above, you will be assessed on the basis of two papers. Paper 1 includes three subjects worth 50, 50, and 100 marks respectively. Below we have provided the topic-wise weightage of each subjects included in the SSC JE Paper 1. The subjects included in the SSC JE Paper 1 are as follows:

PAPER 1 SYLLABUS					
General Intelligence & Reasoning	General Awareness	Civil Engineering	Electrical Engineering	Mechanical Engineering	
<ul style="list-style-type: none"> • Missing Number • Syllogism • Blood Relation • Seating Arrangement • Wrong Number • Direction Sense • Non-verbal Reasoning • Series • Dice • Coding Decoding • Mirror Image • Direction Sense 	<ul style="list-style-type: none"> • Geography • History • Polity • Current affairs • Environment • Science • Arts and Culture • Sports 	<ul style="list-style-type: none"> • Building Materials • Estimating • Costing and Valuation • Surveying • Soil Mechanics • Hydraulics • Irrigation Engineering • Transportation Engineering • Environmental Engineering <p>Structural Engineering:</p> <ul style="list-style-type: none"> • Theory of Structures • Concrete Technology • RCC Design • Steel Design. 	<ul style="list-style-type: none"> • Basic concepts • Circuit law • Magnetic Circuit • AC Fundamentals • Measurement and measuring instruments • Electrical Machines • Fractional Kilowatt Motors and single-phase induction Motors • Synchronous Machines • Generation • Transmission and Distribution • Estimation and Costing • Utilization and Electrical Energy • Basic Electronics. 	<ul style="list-style-type: none"> • Theory of Machines and Machine Design • Engineering Mechanics and Strength of Materials • Properties of Pure Substances • 1st Law of Thermodynamics, 2nd Law of Thermodynamics • Air standard Cycles for IC Engines • IC Engine Performance • IC Engines Combustion • IC Engine Cooling & Lubrication • Rankine cycle of System • Boilers • Classification • Specification • Fitting & Accessories • Air Compressors & their cycles 	<ul style="list-style-type: none"> • Refrigeration cycles • Principle of Refrigeration Plant • Nozzles & Steam Turbines. • Properties & Classification of Fluids • Fluid Statics • Measurement of Fluid Pressure • Fluid kinematics • Dynamics of Ideal fluids • Measurement of Flow rate • Basic Principles • Hydraulic Turbines • Centrifugal Pumps • Classification of Steel.

[Source: KD Live]

The topic-wise weightage of each subject of Paper 1 is given below:-

General Intelligence and Reasoning

**SSC JE Recruitment Syllabus 2024 - Subject Wise Topics Weightage**

Topics	Weightage
Missing Number	4-5
Syllogism	2-3
Blood Relation	2-3
Seating Arrangement	3-4
Wrong Number	3-4
Direction Sense	2-3
Non-verbal Reasoning	4-5
Series	4-5
Dice	1-2
Coding Decoding	3-4
Mirror Image	2-3
Direction Sense	2-3

The table above clearly illustrates that Missing Number, Non-verbal Reasoning, and Series carry the highest weightage.

General Knowledge and Awareness

Topics	Weightage
Geography	2-3
History	3-4
Polity	3-4
Current affairs	10-14
Environment	3-4
Science	8-10
Arts and Culture	2-3
Sports	2-3

It is evident that Current affairs is the frequently asked topic.

General Engineering

**SSC JE Recruitment Syllabus 2024 - Subject Wise Topics Weightage**

Part - A (Civil Engineering)	
Topics	Weightage
Building Material	12-17
Structural Analysis	3-6
Steel	4-7
Geotech	9-11
Transportation	7-11
Survey	9-11
Hydrology and Irrigation	7-10
Environmental	9-11
Fluid Mechanics	6-9
Construction Management and Estimation	7-10
RCC	7-12

Although the topic of "Building Material" comes up frequently in this subject, if you want to do well on the exam, you shouldn't ignore the significance of the other topics.

Part - B (Electrical Engineering)	
Topics	Weightage
Estimation and Costing	2-6
Power System	17-21
Utilization and Electrical Energy	4-9
Basic Electronics	3-9
Electrical and Electric Instrumentation	7-16

Power System holds highest weightage.

Part - C (Mechanical Engineering)	
Topics	Weightage
Engineering Mechanics	5-7
Strength of Materials	10-12
Fluid Mechanics and Machinery	8-10
Theory of Machines	6-8
Power Plant Engineering	4-6
Refrigeration and Air Conditioning	4-6
Thermodynamics	7-9

The most important topic is "Strength of Materials".

We hope that you have deeply understood the SSC JE Recruitment Syllabus 2024 for Paper 1, let's explore the SSC JE Recruitment Syllabus 2024 for Paper 2.

SSC JE Recruitment Syllabus 2024 - Subject Wise Topics Weightage

SSC JE Recruitment Syllabus 2024 - Paper 2

There is only one subject in Paper 2 i.e., General Engineering. As previously mentioned, it is divided into three segments: Civil & Structural Engineering, Electrical Engineering, and Mechanical Engineering. For each of these segments, we have provided a comprehensive list of topics. You are going to pick this subject according to the educational background you provided on the application form. This paper carries 300 marks.

PAPER 2 SYLLABUS

Civil Engineering

- Building Materials-
- Surveying
- Estimating
- Soil Mechanics
- Costing and Valuation
- Concrete Technology
- Irrigation Engineering
- Steel Design
- Theory of Structures
- Hydraulics
- RCC Design
- Environmental Engineering
- Transportation Engineering

Electrical Engineering

- Basic concepts
- Circuit law
- Magnetic Circuit
- AC Fundamentals
- Measurement and measuring instruments
- Electrical Machines
- Synchronous Machines
- Generation, Transmission and Distribution
- Estimation and costing
- Utilization of Electrical Energy
- Basic Electronics

Mechanical Engineering

- Theory of Machines and Machine Design
- Engineering Mechanics and Strength of Materials
- Thermal Engineering-
- Properties of Pure Substances
- 1st Law of Thermodynamics:
- 2nd Law of Thermodynamics
- Air standard Cycles for IC engines
- Rankine cycle of steam
- Fluid Mechanics & Machinery

Mechanical Engineering

- Properties & Classification of Fluid
- Fluid Statics
- Measurement of Fluid Pressure
- Fluid Kinematics
- Dynamics of ideal fluids
- Measurement of Flow Rate Basic Principles
- Hydraulic Turbines
- Centrifugal Pumps
- Classification of Steels



[Source: KD Live]

Refer to the table below to understand the topic-wise weightage of each topic of SSC JE Recruitment Syllabus 2024 for Paper 2.

Civil Engineering

SSC JE Recruitment Syllabus 2024 - Subject Wise Topics Weightage

Topics	Weightage
Theory of Structure and SOM	15-20
RCC Design	10-12
Steel	7-8
Soil Mechanics	10-15
Surveying	15-20
Environmental Engineering	5-6
Hydraulics and Irrigation Engineering	5-6
Estimating and Costing	2-3
Transportation Engineering	4-5

"Theory of Structure and SOM" holds highest weightage.

Electrical Engineering

Topics	Weightage
Network	32
Machines	25
Electrical Machines	18
Basic Electronics	8
Power System	20

The table clearly illustrates that Network, along with Power System, are frequently asked topics in this section.

Mechanical Engineering

Topics	Weightage
TOM and MD	20
Strength of Materials	20
Thermodynamics (RAC, IC, PP)	20
FM and HM	20
Production Engineering	20

Moving forward, we hope that you have gained a deeper understanding of the SSC JE Recruitment Syllabus 2024 for both Paper 1 and Paper 2. Let's discuss the SSC JE Exam Pattern 2024 now.

SSC JE Exam Pattern 2024

Once you're acquainted with the SSC JE Recruitment Syllabus 2024, let's explore the exam pattern. The SSC JE exam consists of two papers: Paper 1 and Paper 2. We have provided you with a snip of the SSC JE exam pattern from the official notification for your clarity.

SSC JE Recruitment Syllabus 2024 - Subject Wise Topics Weightage

Papers	Mode of Examination	Subject	Number of Questions /Maximum Marks	Duration
Paper-I	Computer Based Examination	(i) General Intelligence and Reasoning	50/ 50	2 Hours (2 hours and 40 minutes for the candidates who are eligible for scribe as per Para-9.1, 9.2 and 9.3)
		(ii) General Awareness	50/ 50	
		(iii) Part-A: General Engineering (Civil & Structural) or Part-B: General Engineering (Electrical) or Part-C: General Engineering (Mechanical)	100/ 100	
Paper-II	Computer Based Examination	Part-A: General Engineering (Civil & Structural) or Part-B: General Engineering (Electrical) or Part-C: General Engineering (Mechanical)	100/ 300	2 Hours (2 hours and 40 minutes for the candidates who are eligible for scribe as per Para 9.1, 9.2 and 9.3)

[Source: ssc.gov.in]

The SSC JE examination includes two papers - Paper 1 and Paper 2.

Paper 1 will consist of 200 objective-type, multiple-choice questions, available in both Hindi and English, with a total duration of 2 hours. Each question carries one mark, and there will be a penalty of 0.25 marks for every wrong answer. Moving on to Paper 2, it is a Computer-Based Exam featuring 100 objective-type, multiple-choice questions, available in both Hindi and English. The exam lasts for 2 hours, with a maximum score of 300 marks. Each incorrect answer will result in a penalty of 1 mark.

Further, for a more detailed understanding of the

[SSC JE Exam Pattern 2024](#)

, you can read our blog by clicking on the embedded link.

SSC JE Marking Scheme 2024

Now that we have covered the SSC JE Recruitment Syllabus 2024 and exam pattern, let's move on to the marking scheme.

SSC JE Recruitment Syllabus 2024 - Subject Wise Topics Weightage

- The SSC JE recruitment exam consists of two Computer-Based Objective-Type Papers.
- Paper 1 contains 200 questions, each worth 1 mark, totaling 200 marks.
- In contrast, Paper 2 has 100 questions, with each question carrying 3 marks, making a total of 300 marks.
- Both papers include penalties for incorrect answers: a 0.25 mark deduction per wrong answer in Paper 1, and a 1 mark deduction per wrong answer in Paper 2. Therefore, it's important to be cautious when answering.

With the marking scheme now clear, let's move on to understanding the Marks Normalization process.

SSC JE 2024 Marks Normalization

As you prepare for the SSC JE 2024 exam, it's important to understand the concept of marks normalization, a key process that ensures fairness among all candidates. Since the SSC JE exam is conducted in multiple shifts on different days, variations in the difficulty of question papers can occur. Marks normalization addresses this issue by using a statistical method to adjust your score based on the difficulty level of the specific paper you took. This ensures that your performance isn't unfairly impacted if your exam is more difficult than others. The goal of normalization is to provide an accurate comparison of your performance with that of other candidates, regardless of differences in paper difficulty across sessions.

If the Computer-Based Examination is held in multiple shifts, your scores will be adjusted according to the formula outlined in

Commission Notice No: 1-1/2018-P&P-I, dated 07-02-2019

SSC JE Exam Dates 2024

Now that you have gained a deeper understanding of the SSC JE Recruitment Syllabus 2024, let's have a look at the schedule of the SSC JE exam. It is very crucial for you to be aware of the exam dates. Look at the table below so that you don't miss out on any of the important dates.



SSC JE Recruitment Syllabus 2024 - Subject Wise Topics Weightage

Events	Dates
SSC JE Notification 2024 Release Date	28 March 2024
SSC JE 2024 Apply Online Start Date	28 March 2024
SSC JE 2024 Apply Online Last Date	18 April 2024
Last date and time for making online fee payment	19 April 2024
Date of 'Window for Application Form Correction' and online payment of Correction Charges.	22 April 2024 - 23 April 2024
SSC JE CBT Exam Date	4th, 5th & 6th June 2024

Additionally, for any updates regarding the

[SSC JE Exam Dates 2024](#)

, read our detailed blog.

We've reached the conclusion of our SSC JE Recruitment Syllabus 2024 blog. We hope this guide has cleared up any doubts about the SSC JE exam 2024. Remember, every topic is equally important, so aim to excel in each one. In this blog, we've also outlined the exam pattern to help you focus on the areas that need more attention. Stay connected for further updates, and best of luck on your journey!