1)What is NPM?

Npm is a software registry where many libraries and software are hosted.

It is also a package manager and provides cli to install softwares for our project.

It acts a node package manager behind the scenes

2)What is’Parcel/Webpack’?Why do we need it?

Parcel is a bundler which helps our project to be ready for production with its utilities and functionalities

Like Hot module reload, Diagnostics, treeshaking, error handling, Differential bundling, compressing, minification, image optimisation and more

3)What is parcel-cache?

Parcel cache is a directory generated by the parcel bundler tool at first time of bundling your project. Parcel analyzes the transformation, optimisation of your project and stores the result in cache. It makes the subsequent built faster by only processing the modified parts in the cache by saving the resources and time

<https://www.linkedin.com/posts/atharvabhatnagar_webdevelopment-parcel-caching-activity-7084569533687939073-o0a4/>

4)What is npx?

NPX is an npm package executor. It will search for the package or directory and execute it. If it is not present it will download and install the packages.

5)What is the difference between dependencies and Devdependencies?

Dependencies are the core files that need for your project to run

Whereas the devdependencies are the files that require during dev phase

6)What is tree shaking?

Parcel can determine which export of dynamically imported modules you are using and treeshake the one which you aren’t using

7)What is Hot module replacement?

Hot module replacement is a tool for developers to make changes to the codebase during runtime without affecting the current application state. This doesn't require refreshing the page every time. This enables more efficiency in the development process.

8)5 superpowers of Parcel

Hot module reloading

Diagnostics

Filewatching  
Treeshaking

Differential bundling

Differential bundling:

Differential bundling is an idea of shipping different versions of your code to different targets, and the browser will choose the most optimal one for it. For instance, when you use <script type=”module”> , some of the old browsers may not support es module natively. Hence it requires to add the no module fallback. Thus there are two different target files generated for legacy and modern browsers. This only happens if we add the browsers to our browsers list.

Diagnostics

If there is any error in your code or configuration, parcel displays a beautiful diagnostic message in your browser and terminal with the exact line where the error occurs along with the hints to resolve it. Many of them even include links to documentation to fix the error.

6)What is gitignore

Gitignore is a file used in git repository to ignore the files and directories which are not required for the file when we commit changes to the remote repository. These are the files which can be regenerated. Node modules, parcel cache and dist files are regeneratable. Hence they are added to gitignore.

7)Package.json vs package-lock.json

Package.json primarily acts as a metadata containing information about your project like name version author. Along with that it contains information about dependencies that are required for our project with semantic version or a specific version number that our project will support.

It is added when we set up a package manager for our project. It's a configuration for the package manager.

This is actually used for version control system and shared as a configuration file among the contributors

This can be editable

Package-lock.json is a file which is generated when we install some dependencies. It locks the exact version of dependencies that's been installed.

It also contains the information about the sub-dependencies along with the location path. Thus locking all the information as a snapshot of tree structure helps in maintaining the consistency and reproducibility across different environments.

This can be edited as it is generated when we install dependencies.

8)Why I should not modify package-lock.json

It also contains the information about the sub-dependencies along with the location path. Thus locking all the information as a snapshot of tree structure helps in maintaining the consistency and reproducibility across different environments.

9)What is dist folder

The distribution folder is generated with every build.  
It contains bundled/minified code with different version of your code which is ready run across different platforms

10)What is node\_modules?Is it good to push it to git

Node modules is a directory in your project which will contain all the backend code of your project dependencies. It is created when we download our first dependencies.

11)What is browser lists

Browser lists help us in specifying the browsers in which our projects can run. This also enables the builder to generate browser specific codes which are compatible to run in it.

12)^ caret and ~tild

Major.Minor.Patch

^ - Minor and patch

~ - patch

<https://developer.mozilla.org/en-US/docs/Web/HTML/Element/script>