Ch-2 Assignment

① what is NPM

NPM does not Stand for Node package manager. (Not specified) it is uses to manage package.

NPM has 3 distinct Components
(i) website - dise to discover package, setup profile etc
(ii) CLI (command Line Interface) - runs from a terminal & is how most developer interact with npm
(iii) registry - a large public database of JS software & meta info surrounding it.

② what is 'Parcel/webpack ? why do we need it?

☺ Parcel is beast"

It is Parcel/webpack are bundles.
it makes code compact so that it become easier to send a request or receive response from server.

Both these bundles reduce time it take for transfer of data & files from application

— Both perform lots of function or —

remove unnecestory comments, new lines, ony kind of bbck delimtess & white space without effect functionality of coder

— Parcel'- perform function :-

HMR

File watch Algorithm

Bundling

minify

cleaning oue code

and . . . . . .

① what is '. Parcel-cache'

cache folder store information about project when parcel builds it, so that when it rebuild, it doesn't have to re-barse & re-analyzo everything from scrotch.

that's why it can be so fost in deuclobment mode

2 what is npx

5 - execute using npm

— execute package, without installation
from npm registry

2 what is difference between dependencies vs dev-dependencies.

Dependencies	DevDependencies
A dependency is a library that a project needs to function effectively.	DevDependencies are the package a developer needs during development.
— if a package doesn't already exist in the node-module directory, then it will/is automatically added	— As we install a package, npm will automatically install the dev dependencies.
— These are libraries we need when we run our code.	— These dependencies may be needed at some point during development process but not during execution.
— Command:- ~~npm~~ npm install <packagename>	Command:- npm install <packagename> --save-dev.

Q) what is Tree Shaking?

it is used to describe the removal of dead code.
it relies on the import and export ssl statements to detect if code modules exported & imported for use b/w JS files.

- wer use module bundlers to automatically remove dead code when bundling multiple JS files in to single files.

Q) what is Hot Module Replacement?

HMR exchanges, adds or remove module while an application is running without a full reload.
- Retain application state which is lost during full reload
- save valuable development time by only updating what changed
- Instantly update browser when modification are made to CSS/JS in source code., which is almost comparable to changing styles directly in browser dev tools.

- In Parcel:- it uses file watcher to keep update changes.

2. List down your favourite 5 Superpowers of Parcel and describe any of 3 them in your own words :-

(i) HMR (ii) Image optimization
(iii) Zero configuration
(iv) Compatiable with older version of browser
(v) minify / HTTPS on dev
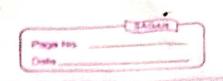
(i) HMR - Hot module Replacement
:- it keep update changes using file watcher
it updates module in browser without needing a whole page refresh

(ii) Image optimization :-

Parcel also include lasless image optimization for JPEGs & PNGs by default in production mode, which reduce si size of images without affecting their quality

(iii) Compatiable with older browser
-.

Parcel make app compatiable with older ones by using browserslist.

Q what is gitignore ? what should we add
and not add into it

The gitignore tells Git which files to
ignore when committing project to GitHub
repository. it purpose is to ensure that
certain files not tracked by Git remain untracked.

- the type of files that we a want to
add to gitignore are any files that do not
need to get committed.

"those files which can be regencated that
can be added to gitignore" for ex- package Json"

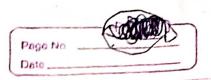Q what is difference b/w package.Json
and package-lock.Json

Package Json :- it contains basic information
about the project & mandatory for
every project. contain information such
as name, description, author, Script &
dependencies.

Package lock.Json :- it describes the exact tree
that was generated to allow subsequent
if maintain the exact

1) package-lock-json :- it is very
important file, it locks the
version uses in project.
it help to identify which vers
exact version we are using
in project.
it contain name, dependencies &
locked version of the project.

2) why I should not modify package-lock.json

it is generated file & its purpose is to track
the entire tree of dependencies & exact
version of each dependency,
when their is change in entire node-moduly
'package-lock.json automatically update itself.

3) what is node modules ? is it
a good idea to push that on git.

Node module is kind of database of npm
whatever we install it is in node modules
~~yes it~~
No it is not good idea to push on git
as it is heaviest part because it has
all files that we have installed.
Since we have packages lock.json file so, no
need to push Node module on git.

2 what is 'dist' folder

- it is directory where file will be stored
  that can be directly used by others without
  need to compile or minify the source code
  that is being processed

- keep file minify.

what is browserlists?

- it make app compatiable with
  older browser.

- Babel transforms JS code from futuristic code
  to code that is understandable by older browser
  via package caled browserlist

Parcel	webpack	vite
No Config	Require Config Specifying entry, Output, loaders, Plugin etc	it also require conf
Dead Code elimination		
	it provide extensive support for third party imports, imoges & css preprocessor	