Mac Conkey Agar

Pancreatic digest of gelatin	17.0 gm/ litre
" " " Casein	01.5
Peptic digest of animal tissue	01.5
Lactose	10.0
Bile salts	01.5
Sodium chloride	05.0
Neutral Red	00.03
Crystal Violet	00.001
Agar	13.5

For solidifying 1.5 of Agar may be used if needed.

(x) Agar is a sulfate polymer composed mainly of
D-galactose,
3,6-anhydro L-galactose
D-glucuronic acid
Extracted from a red algae

Most of Microbes cannot digest it.
— Melted in Boiling water
— cooled to 40-42°C & before hardening.
→ Melt again about 80-90°C.

(x) Silica gel is other solidifying agent, used usually to grow autotrophic bacteria in absence of organic matter for determination of Carbon source of heterotrophic bacteria, supplementing with various organic compounds.

Types of Media on the basis of Use.

① General purpose Media e.g. tryptic soya broth.

They support a large number of microbes
Blood and other special nutrients ~~are added~~ may be added to these general purpose media to increase the growth of fastidious heterotrophs.
Such an especialized media is called (Blood)

② enriched Media or Supplemented media

③ Selective media:- They favour the growth of a particular microorganism
e.g. Bile salts & dyes, Basic Fuschin and Crystal violet favours the growth of gram (-)ve bacteria by inhibiting the growth of gram (+)ve bacteria without affecting ~~the~~ gram (-) bacteria
Endo agar, Eosin methylene blue agar, MacConkey Agar
→ For detection of E. coli and related bacteria in water supplies, ~~dd~~ and other sources.
They contain certain dyes ~~and~~ which ~~suppress~~ gram (+)ve bacterial growth.

For selection of cellulose digestion bacteria we use only cellulose as both carbon and energy source.

(4) Differential Media → They can distinguish between different groups of bacteria

They even permit tentative identification of microorganisms based on their biological characters.

e.g. Blood agar → Distinguishes between hemolytic and non-hemolytic bacteria (Both enriched & ~~selective~~ & Differential media).

Hemolytic Bacteria → Strepto & Staphylococcus extracted from throat, produces clear zones around their colonies due to destruction of R.B.C.s.

Mac Conkey Agar → Differential & selective.

It possess lactose & neutral red dye, hence Lactose forming colonies appear pink to red in colour hence can be easily distinguished from non fermenter colonies.

Complete Media & Minimal Media

Q. Describe media. Their types and uses.?

Q. ~~Describe~~

Q. What are peptones ? What are their uses. ?