

9. **Answer:** d ('Apply liberally as directed.')
10. **Answer:** b (Discard date of 4 weeks and 'For external use only'.)
11. Creams provide a suitable substrate for microbial growth which may cause spoilage or pathogenicity.
12. Collapsible tubes are the container of choice (*British Pharmacopoeia* 1988, p 650), although wide-necked jars can be used but there is a higher risk of contamination.
13. Dimeticone Cream BPC
1. The product is used as a barrier cream (*Martindale* 33rd edn, p 1410).
 2. This is an official preparation, therefore the formula is safe and suitable for use. As the cream is a barrier cream, using after bathing would be a suitable frequency.
 3. Prepare 30 g of Dimeticone Cream BPC.

Product formula

(from *British Pharmaceutical Codex* 1973, p 658)

	Master	500 g	50 g
Dimeticone 350 BP	100 g	50 g	5 g
Cetrimide BP	5 g	2.5 g	250 mg
Chlorocresol BP	1 g	500 mg	50 mg
Cetostearyl Alcohol BP	50 g	25 g	2.5 g
Liquid Paraffin BP	400 g	200 g	20 g
Freshly boiled and cooled purified water	444 g	222 g	22.2 g

4.
 - a. Dimeticone 350 BP is insoluble in water (*British Pharmacopoeia* 1988, p 200). Cetostearyl Alcohol BP is practically insoluble in water and, when melted, miscible with Liquid Paraffin (*British Pharmacopoeia* 1988, p 111). Cetrimide BP is soluble 1 in 2 parts water (*British Pharmacopoeia* 1988, p 111). Chlorocresol BP is slightly soluble in water and freely soluble in fixed oils (*British Pharmacopoeia* 1988, p 126). Liquid Paraffin BP is practically insoluble in water (*British Pharmacopoeia* 1988, p 415).
 - b. As creams are susceptible to microbial contamination, freshly boiled and cooled purified water will be used as the vehicle as per the product formula.
 - c. Chlorocresol BP is included in this product as the preservative as per the product formula.
 - d. Creams are for external use and so no flavouring is required.

The following method would be used to prepare 50 g of Dimeticone Cream BPC from the formula above:

Noting that Cetostearyl Alcohol BP has a melting point of 49–56°C (*British Pharmacopoeia* 1988, p 111).

1. Weigh 2.5 g Cetostearyl Alcohol BP on a Class II or electronic balance.
2. Weigh 20 g Liquid Paraffin BP on a Class II or electronic balance.
3. Weigh 5 g Dimeticone 350 BP on a Class II or electronic balance.