RSPT 1200 QUIZ III

NAME: ANSWER KEY

## **CHOOSE THE ONE BEST ANSWER**

## **MATCHING** (1 point each)

1.	F_ Spacer	A. Front-Door Drug
2.	C_ Holding Chamber	B. Wetting Agents
3.	A_ Xopenex	C. Contains a one-way valve
4.	I_ Atrovent	D. Breaks down Disulfide bonds
5.	D_ Mucomyst	E. Examples are Guifenesin and SSKI
6.	H_ Tachycardia	F. Lacks a one-way valve
7.	<b>J</b> _ 15%	G. Narcotic and Non-narcotic types
8.	E_ Expectorant	H. All bronchodilators
9.	G_ Cough Suppressant	I. Back Door Drug
10.	B_ Bland Aerosol	J. Percent improvement in peak flow to be
		significant.

## **SHORT ANSWER**

11. Give an example of an actual drug combination (front-door, side-door, back door) that would be **in**appropriate. (2 points)

FRONT-DOOR	BACK-DOOR	SIDE-DOOR
EPINEPHRINE	ATROPINE	THEOPHYLLINE
<b>METAPROTERENOL</b>	<b>IPRATROPIUM</b>	AMINOPHYLLINE
TERBUTALINE	TIOTROPIUM	
ALBUTEROL		
PIRBUTEROL		
LEVALBUTEROL		
*SALMETEROL		
*FORMOTEROL		

12. Briefly describe how a dry powder inhaler works. (3 points)
INHALATION OF DRUG IN A CRYSTALLINE OR POWDER FORM. DPIs ARE BREATH
ACTIVATED, AND MAY REQUIRE HIGHER FLOWS TO RELEASE THE POWDER AND
MAY RESULT IN INCREASED PHARYNGEAL IMPACTION

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- 13. List three factors that would lead to thick, tenacious mucus. (3 points)
  - A. **SMOKING**
  - B. **ENVIRONMENTAL IRRITANTS**
  - C. ALLERGY
  - D. INFECTIONS
  - E. GENETIC PREDISPOSITION
  - F. FOREIGN BODIES
  - G. IRRITANTS
  - H. DECREASED CILIARY FUNCTION
  - I. INADEQUATE HYDRATION
  - J. ARTIFICIAL AIRWAYS WITHOUT PROPER HUMIDIFICATION
  - K. TEMPERATURE EXTREMES
  - L. INCREASED FIO<sub>2</sub>
- 14. Describe what action should be taken after administering a steroid by MDI (2 points)
  - A. ALWAYS GIVE A STEROID WITH A RESERVOIR DEVICE
  - B. HAVE THE PATIENT RINSE THEIR MOUTH AFTERWARDS TO AVOID FUNGAL INFECTIONS

## **CALCULATIONS** (2 points each)

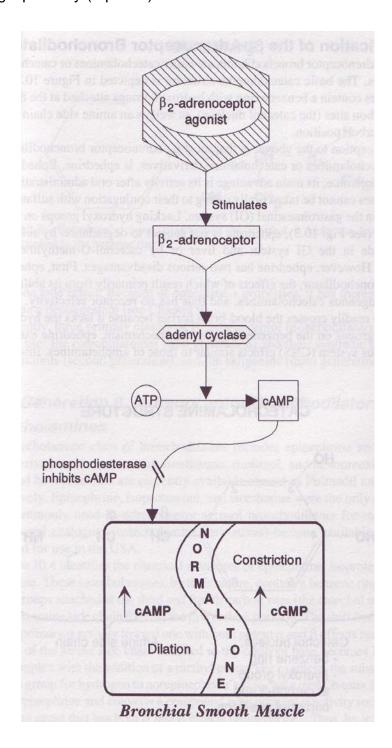
- 15. 0. 3 mL of a 5% solution contains how many milligrams?  $(\# mL \times \#\% \times 10) = \# mg$  $(.3mL \times 5\% \times 10) = 15mg$
- 16. You have 100 mL of a 50% solution. If you add 250 mL, what is the new concentration?  $(C_1 \times V_1) = (C_2 \times V_2)$

$$C_2 = \frac{\left(C_1 \times V_1\right)}{V_2} = \frac{\left(50\% \times 100 \, mL\right)}{\left(100 \, mL + 250 \, mL\right)} = \frac{50}{350} = .143 = 14.3\%$$

17. You have an MDI that contains 120 actuations. Ignoring priming actuations, how long (in days) will the MDI last if the prescription reads "two puffs BID".

$$\frac{120 \, puffs}{2 \, x2} = \frac{120}{4} = 30 \, days$$

18. Diagram the Adrenergic pathway (4 points).



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