

DADASAHEB BALPANDE COLLEGE OF PHARMACY, NAGPUR

GPAT TEST SERIES, PAPER NO. 4 DATE: 03/12/18

1. The Henry's law is applicable if
  - a) the temperature and pressure are moderate
  - b) the solubility of the gas in the solvent is low
  - c) the gas doesnot react with the solvent to form a new species
  - d) All the above
2. mathematically, Raoult's law can be expressed as
  - a)  $P_s - P/P = n/n + N$     b.  $P_s - P/P = N/n + N$     c.  $P_s + P/P = n/n + N$
  - d.  $P - P_s/P = n/n + N$
3. Range of Particles used in colloidal dispersion ?
  - A) 1nm to 1.5    b) 0.5 to 1 nm    c) 2nm    d) none of these
4. Amphiphiles are observed in?
  - A) Lyophilic colloids    B) Lyophobic colloids
  - C) Association colloids    D) Bothe B and C
5. Lyophilic colloids are
  - a) stable    b) unstable    c) metastable    d) none of these
6. Thixotropic type of behavior is shown by the gel?
  - a) bentonite    b) pectin    c) silica    d) starch
7. Protection against hydrolysis can be done by
  - a) buffers    b) complexation    c) suppression of solubility    d) all of above
8.  $k = Ae^{-E_a/RT}$  in this eq. A stands for
  - a) arrhenious factor    b) frequency factor    c) stability factor    d) both A &B
9.  $K = 2.303/t \log a / a-x$  is an equa&tion of
  - a. Zero order rate constant    b. First order rate constant
  - c. Second order rate constant    d. Complex order rate constant
10. Phase rule is applicable for:
  - a. One component system    b. Two component system    c. Three component system    d. All of them
11. Concentrations in ternary phase system are expressed on:
  - a. Molality    b. Mole fraction    c. Weight-Weight basis    d. All of them
12. One parts solute dissolve in between 30 to 100 parts of solvent is called as:
  - a. Freely soluble    b. Sparingly soluble    c. soluble    d. Slightly soluble
13. Heat of solution of NaCl at 25°C is:
  - a. 15 Kcal/mole    b. 1 Kcal/mole    c. -10 Kcal/mole    d. 5 Kcal/mole
14. What is triple point of water:
  - a. 374°C    b. 37.5°C    c. 100.01°C    d. 0.0098°C
15. Particle size determination by:
  - a. Pycnometer    b. Rotation viscometer
  - c. Tag open cup apparatus    d. Cascaele impactor



*Mahajan*  
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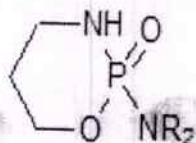
GPAT TEST SERIES, PAPER NO. 3

Date: 23/10/2018

1. What term is used to indicate the ability of a cancer to invade other parts of the body and to produce secondary tumours?
- a) Carcinogenesis b. Apoptosis c. Metastasis d. Mutagenesis

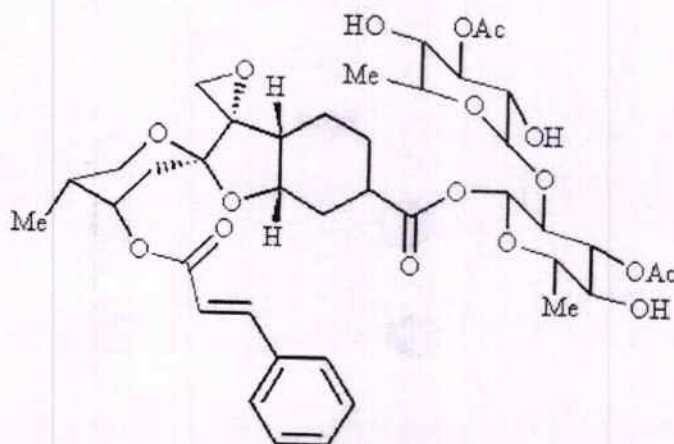
2. Which molecules are involved in the anchoring of cells to an extracellular matrix?
- a) Integrins b. Interleukins c. Angiostatin d. Cyclins

3. Cyclophosphamide is commonly used in anticancer therapy.



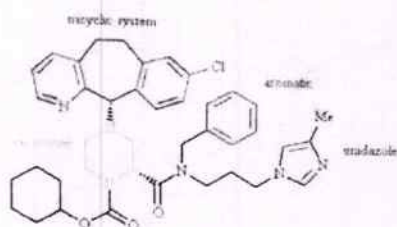
Which of the following statements is not true of the above structure?

- a) It is relatively non-toxic. B. It acts as a prodrug  
c. It cannot be taken orally. d. The structure is metabolised to release acrolein.
4. What is the name of the following anticancer drug?



- c) Spongistatin 1 b) Cryptophycin c. Phyllanthoside d. Maytansine 1

5. The following structure is an inhibitor of the enzyme responsible for adding a farnesyl chain to the Ras protein.



Which feature binds to the zinc cofactor of the enzyme?

- a) The tricyclic system b. The piperazine ring c. The aromatic ring  
d. The imidazole ring



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GPAT TEST SERIES PAPER NO. 2 Date: 03/09/18

1. Goldbeater's skin test is used to detect the presence of which one of the following classes of compounds?  
A) Tannins B) Steroids C) Glycerides D) Resins
2. Tannic acid is antidote in poisoning:  
A) Iodine B) Cyanide C) Alkaloid D) Arsenic
3. Alkaloid present in Black pepper is:  
A) Caryophyllene B) Cinnamaldehyde C) 1- Phellandrene D) Piperine
4. Which drug is not under the chemical class of indole?  
A) Quinidine B) Quinine C) Atropine D) Camotothecin
5. Family of Ipecac is :  
A) Rubiaceae B) Theaceae C) Solanaceae D) Acantheceae
6. Which alkaloid is not present in cinchona bark?  
A) Quinidine B) Quinine C) Quinovin D) Cinchonin
7. Lignified trichomes is characteristic of drug:  
A) Nux Vomica B) Digitalis C) Senna D) Belladonna
8. The opium alkaloids are present in plants as salt of  
A) Benzoic Acid B) Tartaric Acid C) Meconic Acid D) Acetic Acid
9. Protoplasts can be produced from suspension cultures, callus tissues or intact tissues by enzymatic treatment with  
A. cellulolytic enzymes  
B. pectolytic enzymes  
C. both cellulolytic and pectolytic enzymes  
D. proteolytic enzymes
10. In gel electrophoresis, DNA molecules migrate from \_\_\_\_\_ to \_\_\_\_\_ ends of the gel.  
A. negative ... positive  
B. basic ... acidic  
C. long ... short  
D. positive to negative
11. Restriction enzymes  
A. protect bacteria from viral infection  
B. cut DNA in a staggered fashion  
C. cut DNAs producing a blunt end  
D. all of the above
12. In order to insert a foreign gene into a plasmid, both must \_\_\_\_\_  
A. have identical DNA sequences  
B. originate from the same type of cell



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G-PAT TEST SERIES 2018-19

Time allotted: 3 hours

Max. Marks: 450

Date: 15<sup>th</sup> January 19

INSTRUCTIONS

1. Questions booklet contains blank sheets for your rough work. No additional sheets will be provided for rough work.
2. Clip board, log tables, slide rule, calculator, cellular phone and electronic gadgets in any form are not allowed.
3. Write the name in space provided at the top of the answer- sheet
4. Choose the correct answer of the question and write in a respective circle in answer-sheet. Any over-writing will be considered as a wrong answer.
5. Each question carries 3 marks. Wrong/incorrect answer awarded with negative 1 mark.
6. Multiple answers to the question will be treated as a wrong answer
7. For each unattempted question you will awarded zero mark

1. Shick test is used for detection of -----.  
a) **Diphtheria**      b) T.B.      c) Cholera      d) Typhoid
2. Anthrax vaccine is prepared by -----.  
a) **Attenuated bacilli**      b) Killing the bacilli      c) Live bacilli      d) None
3. Pertussis vaccine is-----.  
a) Heat killed      b) **Formalin killed**      c) Attenuated      d) Live
4. DPT is  
a) **Triple vaccine**      b) Double vaccine      c) Tetanus toxoid      d) All
5. Vaccines used against viral infections are  
a) **Measles & mumps vaccines**      b) Cholera vaccine  
c) Typhoid vaccine      d) Anti-rickettsial vaccine
6. Example for live vaccine is  
a) **Rubella and BCG**      b) Polio and TAB  
c) Diphtheria and tetanus      d) Hepatitis A and Rabies
7. Opsonin is the  
a) Cell wall component      b) Plasma component  
c) **Serum component**      c) Cytoplasm component
8. Conductance of an electrolyte solution at two different temperatures will be  
A. **Different**      B. Same      C.:Lower at lower temp.      D. Higher at lower temp.
9. While using octadecyl column the chromatography is  
A. Adsorption B. Normal phase C. **Reverse phase**      D. Octagonal
10. The commonly used cross linking agent is:  
A] Polystyrene      B] Silica gel  
C] Divinyl benzene      D] none of the above

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*Mahajan*  
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