Sample Papers

Sample paper for Post Graduate Courses

The Entrance test will be of 1-hour duration, consisting of 80 questions of multiple choice carrying maximum 80 marks.
The test paper consist of 5 sections:

Section 1:   **English & GK** Compulsory for all students.
Section 2:   **Physiotherapy:** Compulsory for students appearing for MPT.
Section 3:   **Pharmacy:** Compulsory for students appearing for M Pharm.
Section 4:   **Botany, Zoology & Chemistry:** Compulsory for students appearing for M.Sc. Biochemistry, Microbiology & Biotechnology (B.Sc. with CBZ).
Section 5:   **Chemistry:** Compulsory for students appearing for M.Sc. Pharm. Chemistry.

SECTION 1 – ENGLISH & GENERAL KNOWLEDGE
(Compulsory for all Streams)

A. Choose the right meanings for the given words.

1. Exigent
   A. Urgent   B. Risky
   C. Happy   D. Poor

2. Abominable
   A. Original   B. Preferable
   C. Detestable   C. Predictable

3. Collateral
   A. Guarantee   B. Tiresome
   C. Complimentary   D. Magnanimous

B. The sentences have been given in Active/Passive voice. Choose the best expression from the given alternatives For active/passive voice.

4. They will ask you a lot of questions at the interview.
   A. You will be asked a lot of questions at the interview.
   B. You are asked a lot of questions at the interview.
   C. You are being asked a lot of questions at the interview.
   D. You were being asked a lot of questions at the interview.

5. I don't like people keeping me waiting.
   A. I don't like people are kept me waiting.
   B. I don't like people were kept me waiting.
   C. I don't like people are being kept waiting.
   D. I don't like people kept waiting.

6. The Uttarakhand state is composed of:
   A. Thirteen districts
   B. Fourteen districts
   C. Fifteen districts
   D. Twenty districts

C. Spot the errors in grammar, word usage or idioms in the following sentences. You should not correct the error, simply indicate your response (D) Signifies "no error" response.

7. A. If I am you
   B. I would have seen it
   C. that I won the prize
   D. No error

8. A. Looking back, I find that among the many impressions of the People of India
   B. Absorbed, while I lived among them
   C. Are their reverence for great men and women
   D. No error

9. Flamboyant
   A. Quiet   B. Excited
   C. Disturbed   C. Distressed

10. Validate
   A. Disprove   B. Authenticate
   C. Ingenuine   D. Legalise

SECTION 2 – PHYSIOTHERAPY
(Compulsory for Masters in Physiotherapy)

1. If triceps jerk is absent which root is suspected to be injured
   A. C_3 B. C_6
   C. C_7 D. T_1

2. Clara cells are found in
   A. Trachea   B. Bronchioles
   C. Alveoli   D. Oesophogus

3. There are how many interossii in human feet
   A. 16   B. 14
   C. 12   D. 8

4. Which of the following is incorrect
   A. Thompson test – HIP Flxs
   B. Ober's test – TFL
   C. Sit and Reach test – Hamstrings
   D. All of the above

5. Attachment to first rib is all expect
   A. Scalenius anterior
   B. Scalenius posterior
   C. Scalenius medialis
   D. Suprapleured membrane

6. Child should be able to reach for an object with one hand at the age of
   A. 3 months   B. 6 months
   C. 9 months   D. 1 year

7. Maximum content of triglycerides are found in
   A. HDL   B. LDL
   C. Chylomicrons   D. VLDL

8. Find the ODD one out
   A. Faradism under tension
   B. De-lorme's method
   C. Pyromidal regieme
   D. Longwave diathermy

9. Find the ODD one out
   A. TMJ joint   B. Knee joint
   C. Elbow joint   D. Facet joint

10. Capsular pattern was originally described by
    A. Mennel   B. James Cyriax
    C. G.D. Maittard   D. Mckerizie

SECTION 3 – PHARMACY
(Compulsory for Masters in Pharmacy)

1. The tetracycline causes ototoxicity
   a) Chlortetracycline   b) Democlocycline
   c) Democlocycline   d) Minocycline

2. The drug is selective $\beta1$ receptor agonist
   a) Isoprenaline   b) Adrenaline
   c) Salbutamol   d) Dobutamine

3. How many signals would be expected in NMR spectra of CH_3CH_2Br?
   a) one   b) two
   c) three   d) four

4. Wagner's test is used to detect the presence of
   a) glycosides   b) alkaloids
   c) carbohydrates   d) Terpenes

5. Powdered digitalis is dried at atemperature of
   a) Not exceeding 60°C   b) 65°C
   c) 75°C   d) 100°C

6. The precipitating power increases rapidly with the valence of ions, the statement is known as
   a) Thumb rule   b) Joules Thomson rule
   c) Schulze-Hardy rule d) Hildebrand's law

7. The list of diseases that should not claim to cure are listed under
   a) Sch Y   b) Sch G
   c) Sch J   d) Sch H

8. In sugar coating of tablets seal coating is done
   a) To prevent moisture absorption
   b) to round the edges
   c) To smoothen the surface
   d) to prevent from breakage

9. The UV-Visible range in electro magnetic spectrum is
   a) 200-400nm   b) 400-800nm
   c) 200-800nm   d) 300-600

10. The biological half life of first order kinetics is
    a) 1/k   b) log k
    c) 0.693/k   d) 2.303/k

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SECTION 4 – BOTANY, ZOOLOGY & CHEMISTRY
(Compulsory for students Biochemistry, Microbiology & Biotechnology)

1. Endoplasmic reticulum is mainly
   A. Proteolysis
   B. Peptide bond formation
   C. Cholesterol Synthesis
   D. Fatty acid synthesis

2. Triticum aestivum is
   A. Diploid   B. Triploid
   C. Tetraploid   D. Hexaploid

3. Photochemical smog appears
   A. In the mid day   B. At night
   C. In early morning D. At evening

4. The term mutation was introduced by
   A. Morgan   B. Mendal
   C. De-Vries   D. Frobisher

5. The grass vegetation of Australia is called
   A. Prairies   B. Pampus
   C. Steppes   D. Veldts

6. Which one of the following is Feulgen-positive
   A. RNA   B. DNA
   C. ADD   D. ATP

7. Endoplasmic reticulum occurs in the form of
   A. Tubules   B. Lobules
   C. Cisternae   D. Resticles

8. Radical Vascular bundles are found in
   A. Dicot stem   B. Monocot
   C. Roots   D. Only dicot

9. Which one of the following is not a zymogen
   A. Trypsinogen   B. Pepsinogen
   C. Amylase   D. Cryptotrysinogen

10. The sugar moiety in DNA is
    A. Ribose   B. Desoxyribose
    C. Glucose   D. Mannose

SECTION 5 – CHEMISTRY
(Compulsory for M.Sc. Pharm. Chemistry)

1. In which of the following the central atom does not use sp3 hybrid orbitals in its bonding.
   A. BeF_3 B. OH^+_3
   C. NH_2 D. NF_3

2. The maximum number of oxidation state shown by manganese is in
   A. Mn^{2+} B. MnO_2
   C. MnO_4^{2-} D. MnO^-_4

3. The acid strength of alcohol decreases
   A. $1^0>2^0>3^0$ B. $3^0>2^0>1^0$
   C. $1^0>3^0>2^0$ D. $3^0>1^0>2^0$

4. When a mixture of chloroform and phenol refluxed with sodium hydroxide, slicylaldehyde formed. It is an example of -
   A. Kolbe's reaction
   B. Reimer – Tiemann reaction
   C. Friedal craft reaction
   D. Claisen condensation

5. Which of the following does not undergo Cannizaro's reaction, when treated with aq. NaOH
   A. HCHO   B. CH_3CHO
   C. C_6H_5CHO D. $(H_3C)_3C.CHO$

6. Equal volume of 0.1 M $AgNO_3$ and 0.2M NaCl Solutions are mixed. The concentration of NO_3 ion in the mixture will be
   A. 0.1M   B. 0.05M
   C. 0.2M   D. 0.15M

7. Which of the following solution will have pH close to 1.0?
   A. 100ml of M/10 HCL+100ml of M/10 NaOH
   B. 55ml of M/10 HCL + 45ml of M/10 NaOH
   C. 10ml of M/10 HCL + 90ml of M/10 NaOH
   D. 75ml of M/5 HCL + 25ml of M/5 NaOH

8. The rate constant for first reaction, whose half life is 480 Sec is
   A. $1.44 * 10^{-3}$ Sec $^{-1}$ B. 1.44 Sec^{-1}
   C. $0.72 * 10^{-3}$ Sec^{-1} D. $2.88 * 10^{-3}$ Sec^{-1}

9. Which of the following species is diamagnetic?
   A. O_2^+ B. NO^+
   C. NO   D. O_2

10. Which of the following have the weakest intermolecular forces?
    A. Ammonia   B. HCl
    C. Ar   D. H_2O