Entrance Examination

Faculties: Pharmacy - Medicine – Dentistry - Health Sciences

**General Instructions**

1- The First Page of the booklet is the answer sheet. Fold this page along the perforations, slowly and carefully tear off the answer sheet.

2- Write your name and your seat number then fill the seat number in the proper place on the answer sheet.

3- Be sure to fill only one answer with a pencil for each question.
1. Given the following reaction, Mg₃N₂(s) + 6H₂O(l) \rightarrow 2NH₃(aq) + 3Mg(OH)₂(s)
If 54 grams of water are mixed with excess magnesium nitride, then how many grams of ammonia are produced? (H=1, N=14, O=16)

A. 1
B. 17
C. 51
D. 153

2. What is the electronic configuration of an oxide ion O²⁻? (Atomic number of O = 8)

A. 1s²2s²2p²
B. 1s²2s²2p⁴
C. 1s²2s²2p⁵
D. 1s²2s²2p⁶

3. Under what circumstance might a gas decrease in volume when heated?

A. The gas is held constant at STP
B. The gas remains under uniform temperature
C. The gas is placed under increasing pressure
D. The gas undergoes a decrease in pressure

4. Which one of the following is a linear molecule?

A. BeCl₂
B. BF₃
C. CH₄
D. H₂O

5. A substance which has the following mass composition: C: 40.45%, H: 7.87%, N: 15.73%, S: 35.96%. Determine its empirical formula. (H=1, C=12, N=14, S=32)

A. C₃H₇NS
B. C₄H₈NS
C. C₅H₉NS
D. C₆N₁₀NS

6. For which equilibrium is Kc = Kp?

A. C(s)+H₂O(l) ⇌ CO(g)+H₂(g)
B. H₂(g)+I₂(g) ⇌ 2HI(g)
C. N₂(g)+3H₂(g) ⇌ 2NH₃(g)
D. 2NO₂(g) ⇌ N₂O₄(g)
7. Calculate $\Delta H^\circ$ for the following reaction at 25°C.

$$\Delta H^\circ \text{ (kJ/mol)} \quad \text{Fe}_2\text{O}_3(s) \quad + \quad \text{CO(g)} \quad \rightarrow \quad 3\text{FeO(s)} \quad + \quad \text{CO}_2(g)$$

A. -263 kJ
B. 54 kJ
C. 19 kJ
D. -50 kJ

8. Which statement best describes the function of a catalyst in a reaction?

A. A catalyst makes a reaction more exothermic
B. A catalyst increases the reaction rate
C. A catalyst increases the yield of products
D. A catalyst lowers the temperature of the reaction

9. If the solubility of NaCl at 25°C is 36.2 g/100 g H$_2$O, what mass of NaCl can be dissolved in 50 g of H$_2$O?

A. 18.1 g
B. 36.2 g
C. 72.4 g
D. 86.2 g

10. The correct relationship for the solubility of a gas in a liquid is

A. Solubility increases with increasing pressure and increasing temperature
B. Solubility increases with increasing pressure and decreasing temperature
C. Solubility increases with decreasing pressure and increasing temperature
D. Solubility decreases with increasing pressure and increasing temperature

11. The formal oxidation state of Br in NaBrO$_3$ is:

A. +1
B. -1
C. +3
D. +5

12. What happens to the reducing agent in an oxidation-reduction reaction?

A. It is oxidized as it gains electrons
B. It is reduced as it gains electrons
C. It is oxidized as it loses electrons
D. It is reduced as it loses electrons
13. Of the following, which one is the precipitation reaction?

A. AgNO_3(aq) + NaBr(aq) → AgBr(s) + NaNO_3(aq)
B. N_2O_5(s) + H_2O(l) → 2HNO_3(aq)
C. S(s) + O_2(g) → SO_2(g)
D. H_2O(g) + CO(g) → H_2(g) + CO_2(g)

14. When a reaction is at equilibrium and more reactant is added, which of the following changes is the immediate result?

A. The reverse reaction rate remains the same
B. The forward reaction rate increases
C. The reverse reaction rate decreases
D. The forward reaction rate remains the same

15. For the reaction, N_2 + 3H_2 → 2NH_3
   If \( \frac{d[NH_3]}{dt} = 2 \times 10^{-4} \text{ mol L}^{-1} \text{ s}^{-1} \), the value of \( -\frac{d[H_2]}{dt} \) would be

A. 4 \times 10^{-4} \text{ mol L}^{-1} \text{ s}^{-1}
B. 6 \times 10^{-4} \text{ mol L}^{-1} \text{ s}^{-1}
C. 1 \times 10^{-4} \text{ mol L}^{-1} \text{ s}^{-1}
D. 3 \times 10^{-4} \text{ mol L}^{-1} \text{ s}^{-1}

16. To what volume must you dilute 200 mL of a 6 M solution of NaCl to obtain a 0.3 M solution of NaCl?

A. 1 L
B. 2 L
C. 4 L
D. 0.5 L

17. How many milliliters of 1.55 \times 10^{-3} \text{ mol/L HNO}_3(aq) are required to neutralize 100 mL of 1.90 \times 10^{-4} \text{ mol/L Mg(OH)}_2(aq) ?

A. 24.5 mL
B. 12.2 mL
C. 6.13 mL
D. 49.0 mL

18. The general formula of a cycloalkane is

A. C_nH_{2n+2}
B. C_nH_{2n-2}
C. C_nH_{2n}
D. C_nH_n
19. What is the IUPAC name for the following compound?

\[
\begin{align*}
\text{CH}_3 & \quad \text{CH}_3 \\
\text{CH}_3 - \text{C} - \text{CH}_2 - \text{CH}_3 & \quad \text{CH}_3 \\
\text{CH}_3 &
\end{align*}
\]

A. 1,3-pentamethylpropane  
B. 1,1,3,3-tetramethylbutane  
C. 2,4,4-trimethylpentane  
D. 2,2,4-trimethylpentane

20. How many possible isomers does pentanol have?

A. Five  
B. Six  
C. Eight  
D. Seven

21. Glycogenolysis refers to

A. Storing glucose in the glycogen  
B. Degradation of glucose  
C. Degradation of glycogen  
D. Synthesis of glucose

22. The spaces between the covered parts of an axon are called

A. Nodes of Ranvier  
B. Vesicles  
C. Ventricles  
D. Synaptic clefts

23. Type II (non-insulin-dependent) diabetes mellitus is usually caused by

A. Failure of target cells to respond to insulin  
B. Hyposecretion of insulin  
C. Autoimmune destruction of the insulin-secreting cells  
D. Hypersecretion of insulin

24. Acetylcholine released by parasympathetic nerves causes

A. Decrease in cardiac rate  
B. Decrease arterial blood pressure  
C. Relaxes blood vessels  
D. All of the above
25. All of the following are functions of the endocrine system except
   A. Regulate blood calcium levels
   B. Regulate the heart rate
   C. Control the water balance of the body
   D. Regulate body temperature

26. Which hormone is required for ovulation and formation of the corpus luteum?
   A. FSH
   B. LH
   C. TSH
   D. PRL

27. Which endocrine gland is located just superior to the kidney?
   A. Testes
   B. Pituitary
   C. Parathyroid
   D. Adrenal

28. The main hormone responsible for maintaining pregnancy is
   A. Estrogen
   B. Progesterone
   C. Relaxin
   D. Inhibin

29. Which characteristic of pea plants was NOT important in their selection as Mendel’s research organism?
   A. Most other scientists of the time were also using peas, so a lot was known about them.
   B. Peas are easy to cultivate
   C. Pea plants have a short generation time
   D. Pea plants are self-pollinating but can be cross-fertilized easily

30. The F2 offspring of a monohybrid cross would show the genotype(s)
   A. AA and Aa
   B. Aa and aa
   C. AA, Aa, and aa
   D. AA only
31. If you had two guinea pigs of opposite sex, both homozygous, one black and one brown, but you didn't know which was the dominant characteristic, how could you be certain that the guinea pigs are truly homozygous?

A. The guinea pigs would be homozygous for black (or brown) coat color if each strain could be bred for many generations and only black (or brown) colored offspring were produced
B. If the immediate parents of the black (or brown) guinea pigs were both of that color, it proves they are homozygous
C. If a cross between the black and brown guinea pig produced four all black offspring, the black guinea pig would have to be homozygous for black coat color
D. Any of the results would prove the black guinea pig was homozygous

32. Neurotransmitters can inhibit or excite neurons. For example _____ is inhibitory whereas _____ is excitatory.

A. Glutamate; GABA
B. Serotonin; dopamine
C. GABA; glutamate
D. None of the above is correct

33. A classical example of incomplete dominance is

A. ABO blood groups in humans
B. Height in garden peas
C. Pink flowers in heterozygous snapdragons
D. Coat color in rabbits

34. When the neuron expels potassium

A. The inside of the cell loses positive ions and produces a negative charge inside
B. The inside of the cell loses negative ions and produces a negative charge inside
C. The inside of the cell loses positive ions and produces a positive charge inside
D. The inside of the cell loses negative ions and produces a positive charge inside

35. In this pedigree II 1 is affected with an autosomal recessive disorder. The disease status for II 2 and II 3 is unknown. A and B represent alleles at a locus which is tightly linked to the disease locus with recombination fraction of 0. On the basis of the linked marker genotypes II 2 can be told that:

A. He is affected
B. He is a carrier
C. He is homozygous unaffected
D. The marker results are not informative
36. The function of the epididymides is the

A. Production of spermatozoa and male sex hormones  
B. Conduction and storage of the spermatozoa  
C. Maturation and storage of the spermatozoa  
D. Organ of copulation

37. A contraceptive pill that continuously inhibits the release of GnRH from the hypothalamus will

A. Increase the production of estrogen and progesterone by the ovaries.  
B. Initiate ovulation.  
C. Reduce the secretion of gonadotropins from the anterior pituitary gland.  
D. Stimulate the secretion of LH and FSH from the posterior pituitary gland.

38. Memory cells

A. produce cyclosporine  
B. are responsible for passive immunity  
C. prevent an animal from encountering certain antigens  
D. provide an accelerated immune response upon second exposure to a particular antigen

39. When the cell becomes permeable to sodium, the charge changes to _____; this is called _____.

A. 55mV; depolarization  
B. 55mV; hyperpolarization  
C. 70mV; repolarization  
D. 70mV; hyperpolarization

40. Jenner successfully used cowpox virus as a vaccine against the virus that causes smallpox. Why was he successful even though he used viruses of different kinds?

A. The immune system responds nonspecifically to antigens  
B. The cowpox virus made antibodies in response to the presence of smallpox  
C. Cowpox and smallpox are antibodies with similar immunizing properties  
D. There are some antigenic determinants common to both pox viruses

41. The potential energy of a 77 kg diver standing on a 20 m high diving tower is 15,400 J. Two-thirds of the way down during the dive into the pool, his potential energy is 5,100 J. Neglecting air resistance, what is the diver's kinetic energy at this point?

A. 2,550 J  
B. 7,650 J  
C. 10,300 J  
D. 12,850 J
42. At a stop light, a truck traveling at 15 m/s passes a car as the car starts from rest. The truck travels at constant velocity and the car accelerates at 3 m/s². How much time will it take for the car to catch up to the truck?

A. 5 s  
B. 10 s  
C. 15 s  
D. 20 s

43. An object is shot from the back of a railroad flatcar moving at constant 40 km/h on a straight horizontal road. The launcher is aimed upward, perpendicular to the bed of the flatcar. The object falls:

A. in front of the flatcar  
B. behind the flatcar  
C. on the flatcar  
D. either behind or in front of the flatcar, depending on the initial speed of the object

44. If 1 A current is flowing through a series circuit having 100 resistors of each having resistance of 1 Ω. What will be the current in the circuit where, these 100 resistors are connected in parallel?

A. 10 A  
B. 100 A  
C. 1000 A  
D. 10000 A

45. A series circuit consists of R = 20 Ω, L = 20 mH, and AC supply 60 V with f = 100 Hz. The voltage drop across L is

A. 39.1 V  
B. 31.9 V  
C. 45.5  
D. 50.5 V

46. A reactance having an inductor of 0.15 H is connected in series with 10 Ω resistance. What will be the inductive reactance?

A. 48.15 Ω  
B. 47.10 Ω  
C. 1.50 Ω  
D. None of these
47. A series circuit consists of $R = 20 \, \Omega$, $L = 20 \, \text{mH}$, and AC supply $60 \, \text{V}$ with $f = 100 \, \text{Hz}$. The voltage drop across $R$ is

A. 30.6 V  
B. 50.8 V  
C. 40.8 V  
D. 24.4 V

48. A Ferris wheel with a radius of 8.0 m makes 1 revolution every 10 s. When a passenger is at the top, essentially a diameter above the ground, he releases a ball. How far from the point on the ground directly under the release point does the ball land?

A. 0.0 m  
B. 1.0 m  
C. 8.0 m  
D. 9.1 m

49. An object moves in a circle. If the mass is tripled, the speed halved, and the radius unchanged, then the centripetal force must change by a factor of

A. $3/2$  
B. $3/4$  
C. $9/4$  
D. 6

50. A 90 kg man stands in an elevator that has a downward acceleration of $1.4 \, \text{m/s}^2$. Therefore exerted by him on the floor is about

A. 0.0 N  
B. 90 N  
C. 760 N  
D. 1010 N

51. Sara: Commercial flights currently contribute more carbon dioxide to the atmosphere in one year than does the whole of Africa. If we want to reduce global warming we need to restrict the number of flights we take.
Daniel: Did you know that by taking one inter-continental flight you cause more pollution than you would in twelve months of car travel?
Daniel’s response to Sara’s comment serves to:

A. reinforce Sara’s contention that flights are a major contributor to increased carbon dioxide levels  
B. add more weight to her contention that we should reduce the number of flights we take  
C. mitigate the force of her argument by suggesting that there is an alternative approach  
D. question whether she really understands the severity of global warming
52. Scientists investigating a rare metabolic disorder hypothesized that obesity was a predisposing factor in the development of the disease. A study of twenty patients found that, on average, the patients were close to the normal weight for their height. Before concluding that obesity is not a cause in the development of the disease, the researchers would find the answer to which of the following questions most useful?

A. Are the patients above or below normal height?
B. Were any of the patients underweight when the disorder was diagnosed?
C. Does weight loss reduce the severity of the symptoms?
D. Have the patients always been close to the normal weight for their heights?

53. Thousands of people have appendectomy every year and all live normal lives after the operation. We can conclude, from this observation, that the appendix have no function in the body. The argument would be most weakened by which of the following, if it were true?

A. People live normal lives after appendectomies but the appendix is known to be part of the digestive system.
B. Another part of the body can take over the function of the appendix if they are removed.
C. The appendix has been shown to have a vital role to play in the physiology of laboratory rabbits and guinea pigs.
D. The human appendix develops as part of the immune system, a system of vital importance in defense against disease.

54. Amy has to visit towns B and C in any order. The roads connecting these towns with her home are shown on the diagram. How many different routes can she take starting from A and returning to A, going through both B and C (but not more than once through each) and not travelling any road twice on the same trip?

A. 10
B. 8
C. 6
D. 4

55. Jo's collection contains US, Indian and British stamps. If the ratio of US to Indian stamps is 5 to 2 and the ratio of Indian to British stamps is 5 to 1, what is the ratio of US to British stamps?

A. 5 : 1
B. 10 : 5
C. 15 : 2
D. 25 : 2
56. When a statement has no pertinence to the subject at issue it is said to be
A. an unwarranted assumption.
B. irrelevant.
C. logically inconsistent.
D. unclear.

57. ‘All flowers are red. Rose is a flower.’ The conclusion that follows is:
A. all flowers are roses
B. rose is a flower
C. rose is red
D. Some flowers are roses

58. Sami has a paper route. Each morning, he delivers 37 newspapers to customers in his neighborhood. It takes Vincent 50 minutes to deliver all the papers. If Sami is sick or has other plans, his friend George, who lives on the same street, will sometimes deliver the papers for him
A. Sami and George live in the same neighborhood.
B. It takes George more than 50 minutes to deliver the papers.
C. It is dark outside when Sami begins his deliveries.
D. George would like to have his own paper route.

59. Tarek is twelve years old. For three years, he has been asking his parents for a dog. His parents have told him that they believe a dog would not be happy in an apartment, but they have given him permission to have a bird. Tarek has not yet decided what kind of bird he would like to have.
A. Tarek's parents like birds better than they like dogs.
B. Tarek does not like birds.
C. Tarek and his parents live in an apartment.
D. Tarek and his parents would like to move.

60. Tim's commute never bothered him because there were always seats available on the train and he was able to spend his 40 minutes comfortably reading the newspaper or catching up on paperwork. Ever since the train schedule changed, the train has been extremely crowded, and by the time the doors open at his station, there isn't a seat to be found.
A. Tim would be better off taking the bus to work.
B. Tim's commute is less comfortable since the train schedule changed.
C. Many commuters will complain about the new train schedule.
D. Tim will likely look for a new job closer to home.
61. Sara lives in a large city on the East Coast. Her younger cousin Marlee lives in the Mid-west in a small town with fewer than 1,000 residents. Marlee has visited Sara several times during the past five years. In the same period of time, Sara has visited Marlee only once.

A. Marlee likes Sara better than Sara likes Marlee.
B. Sara thinks small towns are boring.
C. Sara is older than Marlee.
D. Marlee wants to move to the East Coast.

62. Which word does NOT belong with the others?

A. inch
B. ounce
C. centimeter
D. yard

63. A piece of ribbon 8m long is folded in half so the two ends are on top of each other. This doubled 4m length is then folded in half again. The folded, 2m length of ribbon is then cut right through at its midway point. How many cut pieces are there and what are their lengths?

A. 5 pieces of ribbon, 1 of 2m long and 4 of 1m long.
B. 5 pieces of ribbon, 3 of 2m long and 2 of 1m long.
C. 4 pieces of ribbon each 2m long.
D. 3 pieces of ribbon one 4m long and 2 of 2m long.

64. Many people suffer from depression in modern society. This can be alleviated through drugs such as Prozac, which alter the chemical balance of the brain. However, the individual can undergo psychotherapy, which involves talking through problems with a sympathetic and skilled fellow human being with a view to putting the subject in a more positive frame of mind. Depressed individuals who do not like the idea of their brain chemistry being altered should therefore choose psychotherapy. Which one of the following is an underlying assumption of the above argument?

A. Psychotherapy is more effective than drugs in treating depression.
B. Psychotherapy cannot be combined with drug treatments.
C. Depression is caused by the pace of modern life.
D. Psychotherapy does not alter the individual's brain chemistry.
65. Hockey is an 11-a-side game, but a team may consist of up to 16 players, with unlimited substitutions allowed throughout a match of 70 minutes duration. Roger captains the Buccaneers hockey team. He has 16 players for today's match. He will play the whole match himself, as will the goalkeeper. He intends to rotate all the others in such a way that each of them spends the same total amount of time on the pitch. How much time should each player (except Roger and the goalkeeper) spend on the pitch during today's match?
   A. 35 minutes
   B. 45 minutes
   C. 65 minutes
   D. 55 minutes

66. Three thermometers are accurate to within 2 degrees above or below the temperature they actually read. One reads 7°, one reads 9° and one reads 10°. What is the minimum range in which the true temperature lies?
   A. 5° - 12°
   B. 8° - 10°
   C. 8° - 9°
   D. 7° - 10

67. Smokers, who suffer from heart disease caused by their smoking, should not be allowed to get free health treatment. That is because this is an example of self-inflicted illness. Those whose actions have caused illness or injury to themselves should make a financial contribution to their treatment. Which one of the following statements best illustrates the principle underlying the argument above?
   A. Children should get free dental treatment, even if they eat sweets which cause dental decay.
   B. Heart disease sufferers who can afford to pay for health treatment should not receive free treatment.
   C. People who are injured in car accidents should receive free treatment regardless of whether they were wearing a seat belt.
   D. Motorcyclists whose head injuries are caused by not wearing a crash helmet should make a financial contribution to their treatment.
For the following 3 questions a flat square of paper is folded one or more times. The broken lines indicate the original position of the folded paper. The paper is never turned or twisted. The folded paper always remains within the edges of the original square. There may be from one to three folds in each item. After the last fold a hole is punched in the paper. Your task is to mentally unfold the paper and determine the position of the holes on the original square. Choose the pattern of black circles that indicates the position of the holes on the original square. There is only one correct pattern for each item.

68.

69.

70.
Pharmacy Oriented Questions

71. Suppositories are composed of a drug and a base. The base favors the dissolution of the drug at body temperature. You are given the following bases (A-D):
   B: Yellow color, odorless, melting point 40 °C, non-irritating base.
   C: Red color, odorless, melting point 35 °C, non-irritating base.
   D: Yellow color, odorless, melting point 35 °C, Mildly irritating base.

   Which one of the followings might be used as a convenient base?
   A. Base A  
   B. Base B  
   C. Base C  
   D. Base D

72. The pain-relieving drug is known as:
   A. Antibiotic  
   B. Antiseptic  
   C. Analgesics  
   D. Antipyretic

73. A patient stepped into the pharmacy, where you are working. You were dealing with another patient. The second patient told you that he is in hurry and cannot wait because he has severe leg pain, and started to shout at you. What is the appropriate action that you might consider when dealing with that patient?

   A. You ignore him and continue working with the other patient  
   B. You tell him in a friendly manner to leave the pharmacy OR to wait until you can talk to him  
   C. You stop dealing with the other patient and see what he wants  
   D. You tell him that you understand his concern and ask him to have a seat, while you finish with the other patient

74. ....................... could be used as a substituent for Aspirin

   A. Penicilline  
   B. Paracetamol  
   C. Cocaine  
   D. Insulin

75. During your night shift, you were checking the stock of the medicines when you discovered that there is a missing box of Concor® 10 mg and an extra box of Concor® 20 mg. You revised the dispensed prescriptions during the day time and you noticed that your colleague dispensed Concor® 10 mg instead of Concor® 20 mg for a regular patient suffering from hypertension. What is the best action to be taken:

   A. You call the patient to explain him what has happened, and ask him to come to exchange the medication box  
   B. You correct the stock, because there is no risk for the patient as the dose is safe.  
   C. You decided to not take any action until your colleague comes the next day.  
   D. You call your colleague to blame him and ask him to correct the problem
76. Listerine, a mouthwash, is used as:
   A. Anesthetic
   B. Antiseptic
   C. Sedative
   D. Antibiotic

77. A diabetic patient stepped into the pharmacy and asked you to give him a drug to relieve his cough. You have in your pharmacy the following drugs (A-D) for cough relief:
   A: contains dextromethorphan and saccharose syrup
   B: contains dextromethorphan and starch
   C: contains codeine and aspartame
   D: contains codeine and sucrose

   Which drug you will recommend for that patient?
   A. Drug A
   B. Drug B
   C. Drug C
   D. Drug D

78. The 2015 Nobel Prize was awarded to pharmacists who treated the disease of:
   A. AIDS
   B. HCV
   C. Malaria
   D. Influenza

79. All of the followings are among the duties of the community pharmacist EXCEPT:
   A. Prescribing specific category of medications
   B. Dispensing the medications written on prescriptions
   C. Educating the patients about medications and diseases
   D. Examining the patients and diagnosing their conditions

80. Amoxicillin is an antibiotic drug used to treat tonsillitis in adults and children. The dose of amoxicillin is 75 mg/kg/day divided into two doses. Moreover, it should be taken on empty stomach to ensure that the drug is completely absorbed. A child, aged 6 year-old and weighing 20 kg, is to take amoxicillin.

   What is the most appropriate amoxicillin dose for that child?
   A. 3000 mg twice a day before breakfast
   B. 540 mg once a day before breakfast
   C. 1500 mg twice a day after breakfast and dinner
   D. 1500 mg twice a day before breakfast and dinner

81. Antibiotic powder for injection should be reconstituted before use by adding:
   A. Tap water
   B. Mineral water
   C. Sterile water
   D. Ionized water
82. The route of administration of injection, which gives a rapid effect of drug
   A. Intramuscular (IM)
   B. Intravenous (IV)
   C. Intradermal
   D. Subcutaneous (Underneath the skin)

83. If a patient takes a medication by mistake few days after it is being expired, what do you think will happen to that patient?
   A. This patient will be poisoned
   B. The medication will not be effective at all
   C. The patient will suffer from some abdominal pain
   D. The effect of the drug would be nearly the same

84. Consumption of medication for non-medical use is known as:
   A. Treatment
   B. Prevention
   C. Addiction
   D. Diagnosis

85. Some drugs are never available as tablets or capsules, but only as injection; this is because:
   A. They cause vomiting if given by mouth
   B. They are destroyed if given by mouth
   C. They have a very bad taste
   D. They are only needed to produce a rapid effect

86. During routine working day at a community pharmacy, a mother came to buy an antibiotic for her 8-year-old child who was diagnosed to have influenza virus and was only prescribed Panadol® for his fever (high body temperature). The pharmacist in charge should:
   A. Give antibiotic to destroy the virus
   B. Not give antibiotic because it needs a legal prescription
   C. Not give antibiotic because viral infection are usually self-limiting
   D. Not give antibiotic because it is not safe for children

87. Normal blood pressure measures:
   A. 120/80
   B. 120/60
   C. 150/80
   D. 140/70
88. Mr. Shadi, a truck driver, suffers from seasonal allergy. Because of his poor financial status, he often works for two consecutive shifts to earn more money. In order to manage his condition, he stepped into a near pharmacy to get an anti-allergie medication. Knowing that most anti-allergie medications has a sedative side effect (the patient becomes sleepy), the number one priority of the pharmacist in this patient’s case should be:
A. The cost: Pharmacist should provide the most cost effective treatment
B. The side effect: Pharmacist should provide the drug with the least or no sedative effect along with appropriate counseling
C. The profit: Pharmacist should ensure good profit margin
D. The drug interaction: Pharmacist should prevent potential drug-drug interaction

89. A 25 year-old female patient previously healthy, came to the pharmacy complaining of high-grade fever after spending the whole day at the beach. What is the most appropriate medication to be given for this patient?
A. Antibiotic
B. Antipyretic
C. Antiallergic
D. Antitusive

90. During the pharmacist shift in the community pharmacy, a patient came complaining from decrease level of consciousness, thirst and blurred vision. After checking the patient’s blood glucose, the result was 510mg/dl. What is the most appropriate intervention that should be done by the pharmacist in this case?
A. Give oral hypoglycemic medication
B. Give insulin
C. Refer the patient to the hospital
D. Educate the patient about the importance of following healthy lifestyle

**Medicine & Health Sciences Oriented Questions**

91. 1. Which of the following match with the definition: a poor output of urine?
   A. Oliguria
   B. Polyuria
   C. Diuresis
   D. Enuresis

92. Which process occurs in the small intestine?
   A. Absorption of nutrients
   B. Production of HCl
   C. Production of bile
   D. Taste sensation
93. What is the definition of Haemorrhage?
   A. Injury to the head
   B. Broken bones
   C. Blood loss
   D. Weight loss

94. When someone has hepatitis, which organ is affected?
   A. The lung
   B. The liver
   C. The heart
   D. The skin

95. What is cardiac arrest?
   A. Heart pumping too fast
   B. Heart beating too slow
   C. Failure of the heart to contract
   D. Heart Skipping beats

96. What is the largest organ in the body?
   A. The lung
   B. The stomach
   C. The liver
   D. The skin

97. A pregnancy duration is normally:
   A. 38 to 42 weeks
   B. 28 to 32 weeks
   C. 32 to 36 weeks
   D. 42 to 46 weeks

98. Vascular system refers to:
   A. Liver
   B. Kidneys
   C. Blood vessels
   D. Nerves

99. Which blood pressure reading is categorized normal for a typical adult?
   A. 80/40 mm Hg
   B. 120/75 mm Hg
   C. 190/120 mm Hg
   D. 120/30 mm Hg
100. Pneumonia is an infection of the:
   A. Liver
   B. Lungs
   C. Oesophagus
   D. Kidneys

101. Which of the following connect bone to bone?
   A. Tendon
   B. Cartilage
   C. Joints
   D. Fluids

102. What blood type is generally considered to be "universal donor"?
   A. B
   B. O
   C. AB
   D. A

103. What percentage of the human body's water?
   A. 50%
   B. 66%
   C. 75%
   D. 80%

104. The flu virus is:
   A. Transmitted by food
   B. Treated with antibiotics
   C. Transmitted by coughing and sneezing
   D. Always deadly

105. What can cause tooth decay (cavities)?
   A. Carbohydrates
   B. Age
   C. Caffeine
   D. Lipids

106. What is hyperlipidemia?
   A. High blood sugar
   B. High fat in the blood
   C. High body fat content
   D. Fatty foods
107. What is AIDS?
   A. A bacterial infection
   B. A rare blood cancer caused by HIV
   C. A group of diseases caused by HIV
   D. Clinical symptoms of HIV

108. Which is not considered a common method of transmission for HIV?
   A. Blood
   B. Genital secretions
   C. Saliva
   D. Urine

109. A sign of a liver disease is:
   A. Hair loss
   B. Increased urination
   C. Jaundice
   D. Lack of sleeping

110. When muscles contract, it mostly uses:
   A. Amino acid
   B. Fatty acids
   C. Glucose
   D. Vitamins