

ARMY PUBLIC SCHOOL

DAGSHAI

ENTRANCE EXAMINATION FOR SESSION 2018-19 FOR ADMISSION TO CLASS-XI (MEDICAL)

Time: 1 Hours

Max. Marks: 100

<u>SUBJECT</u>	<u>M.MARKS</u>	<u>M.OBTD</u>	<u>TEACHER</u>	<u>SIG</u>
ENGLISH	25	—	—	—
PHYSICS	25	—	—	—
BIOLOGY	25	—	—	—
CHEMISTRY	25	—	—	—
TOTAL	<u>100</u>	—	—	—

General Instructions:

1. The candidates are advised to fill the columns correctly.
2. The booklet is divided into four parts i.e. English, Physics, Biology & Chemistry.
3. Candidate should check the booklet carefully and if there is any defect or discrepancy, the same should be requested for replacement.
4. The candidates are required to solve the question on the booklet only.
5. The candidates are not allowed to write or mention anything on the booklet which can reveal his/her identity.
6. There will be no negative marking for wrong answers.

TO BE FILLED IN BY APSD
CODE _____

TO BE FILLED IN BY THE CANDIDATE

Name of the Candidate: _____ Registration No. _____

Studying in Class _____ Class to which admission is sought _____

TO BE FILLED IN BY APSD
CODE _____

Q1. Read the passage given below and answer the questions that follow:

12

Just now the lilac is in bloom,
 All before my little room;
 And in my flower-beds, I think,
 Smile the carnation and the pink;
 And down the borders, well I know,
 The poppy and the pansy blow....
 Oh! There the chestnuts, summer through,
 Beside the river make for you
 A tunnel of green gloom, and sleep
 Deeply above; and green and deep
 The stream mysterious glides beneath,
 Green as a dream and deep as death.
 Oh, damn! I know it! And I know
 How the May fields all golden show,
 And when the day is young and sweet,
 Gild gloriously the bare feet
 That run to bathe.....
 Du lieber Gott! (oh my God)
 Here am I, sweating, sick and hot,
 And there the shadowed waters fresh
 Lean up to embrace the naked flesh.
 Temperamentvoll German Jews (spirited)
 Drink beer around; and there the dews
 Are soft beneath a morn of gold.
 Here tulips bloom as they are told;
 Unkempt about those hedges blows
 An English unofficial rose;
 And there the unregulated sun
 Slopes down to rest when day is done,
 And wakes a vague unpunctual star,
 A slippered Hesper; and there are
 Meads towards Haslingfields and cotton
 Where das Betreten's not verboten. (entering is not forbidden)
 if only I could be)
 In Grantchester, in Grantchester! –

1.1 Answer the following questions briefly:

10

- a) Why does the stream look dreamy and green?

- b) How does the poet contrast his present location with that of his home?

- c) What does Gild do on a pleasant day?

- d) Why is the poet missing chestnut trees, cornfields....?

- e) Where is the poet at present, probably, in the poem?

1.2 Find out words from the passage which mean the same as the following: 2

- a) pleasing
- b) indefinite

Q2. Each of the following sentences contains at least one error. Correct the errors and rewrite the corrected sentences. 5 marks

1. I tried to interrupt into their conversation but was told on.

2. It is important to take pride of whatever we do on life.

- 3. I left home at Sunday morning to catch a flight for England.
- 4. He was scolded from the teacher for failing to pass the test.
- 5. For all that excitement, I had forgotten to take my present for him.

Q3. Read the following dialogue and then complete the report by choosing the correct options from the ones given below. 8 marks

Utkarsh: I have lost my wallet

Inspector: How did you lose it?

Utkarsh: My pocket was picked

Inspector: Where did it happen?

Utkarsh: In the local market, sir.

Utkarsh reported to the inspector (1) _____ lost his wallet. The inspector asked him

(2) _____ Utkarsh replied (3) _____

_____. The inspector further asked him (4) _____.

Utkarsh replied that it had happened in the local market.

10. In case of cataract, which part of eye is affected: (mark 1)
- | | |
|-------------|-----------|
| a) iris | b) cornea |
| c) eye lens | d) retina |

Q II: Answer the following questions in one word or one sentence:

1. How many electrons will constitute one coulomb of charge? (mark 1)
2. Which part of eye contains cells which are sensitive to light? Name these light sensitive cells. (mark 1)
-
-
3. A person is wearing a spectacle of power -3 diopter. What is the focal length of the lens? (mark 1)
-
-
4. Name the substance added to LPG cylinders to detect the leakage of gas?(mark 1)
-
-
5. Think you are sitting in a chamber with your back to one wall. An electron beam moving horizontally from back wall towards the front wall is deflected by a strong magnetic field to your right side. What is the direction of magnetic field? (mark 1)
-
-

Q III: Answer the following questions briefly:

1. How much energy is given to each coulomb of charge passing through a 6 V battery? (marks2)

2. Draw the diagram showing image formation by a convex mirror, when an object is placed at a distance of 25 cm in front of it? (marks 2)

3. How much, the resistance of a resistor, is changed when its diameter is doubled? (marks 2)

4. What is anaerobic degradation? Name the main constituent of LPG. (marks 2)

5. Why does the cord of an electric heater not glow while the heating element does? (marks 2)

Q1. Tick the right answer:

(1X10=10)

1. 50 mL of water was taken in beakers A, B and C. A small amount of CuSO_4 , NaOH and NaCl were added to beaker A, B and C respectively. The temperature of beaker A and B increased where in beaker C decreases. The correct statements are:
 - i) In beaker C exothermic process has occurred.
 - ii) In beaker A and B exothermic process has occurred.
 - iii) In beaker C endothermic process has occurred.
 - iv) In beaker A and B endothermic process has occurred.
 - a) (i) and (ii)
 - b) (ii) and (iii)
 - c) (iii) and (iv)
 - d) (ii) and (iv)
2. When a solution of acid is mixed with a solution of base:
 - i) the temperature of the solution decreases.
 - ii) the temperature of the solution increases.
 - iii) salt formation takes place.
 - iv) the temperature of the solution remains same.
 - a) (i) and (ii)
 - b) (ii) and (iii)
 - c) (iii) and (iv)
 - d) (i) and (iii)
3. Which of the following is not a mineral acid?
 - a) Nitric acid
 - b) Citric acid
 - c) Sulphuric acid
 - d) Hydrochloric acid
4. Silver articles become black on prolong exposure to air, due to the formation of :
 - a) Ag_2O
 - b) Ag_2S
 - c) Ag_3N
 - d) Ag_2S and Ag_3N
5. Which of the following will form acidic oxide?

- a) An element with atomic number 7
 - b) An element with atomic number 3
 - c) An element with atomic number 12
 - d) An element with atomic number 19
6. n-pentane and iso-pentane are:
- a) two homologues of alkane series.
 - b) two isomers.
 - c) two isotopes.
 - d) two allotropes.
7. Carbon forms four covalent bonds by sharing its four valence electrons with four univalent atom e.g chlorine. After the formation of four bonds, carbon attain electronic configuration of :
- a) Helium
 - b) Neon
 - c) Argon
 - d) Oxygen
8. Which of the following metals are obtained by electrolysis of their chlorides in molten state? i) Na ii)Ca iii) Fe iv) Cu
- a) (i) and (iv)
 - b) (iii) and (iv)
 - c) (i) and (iii)
 - d) (i) and (ii)
9. Which of the following statement is not correct?
- a) All metal carbonates react with acid to give, salt, water and CO_2 .
 - b) All metal oxides react with water to give salt and acid.
 - c) Some metals react with acid to give salt and hydrogen.
 - d) Some non metal oxides react with water to form acid.
10. Arrange the following elements in the order of their increasing non metallic character. Li, O, C, Be, F
- a) $\text{F} < \text{O} < \text{C} < \text{Be} < \text{Li}$
 - b) $\text{Li} < \text{Be} < \text{C} < \text{O} < \text{F}$
 - c) $\text{F} < \text{O} < \text{C} < \text{Be} < \text{Li}$
 - d) $\text{F} < \text{O} < \text{Be} < \text{C} < \text{Li}$

QII. Answer the following questions in one word or one sentence. (1X5=5)

1. Would you place two isotopes of chlorine, Cl-35 and Cl-37 in different slot or same slot in a periodic table. Justify.

2. Write IUPAC names of the following: i) $\text{CH}_3\text{CH}_2\text{CH}(\text{Cl})\text{CH}_2\text{COOH}$
ii) $\text{CH}_3\text{COCH}_2\text{CH}_3$

3. The reaction of 'X' with Fe_2O_3 is highly exothermic and is used to join railway tracks. Identify 'X'. Write the chemical equation for this reaction.

4. Write the name given to the bases that are highly soluble in water. Give an example of which is used as antacid.

5. Zinc liberates hydrogen gas when reacted with dilute HCl whereas Cu does not. Explain why?

QIII. Explain following reactions with chemical equations:

(5X2=10)

1. Dehydration of Ethanol.

2. Roasting of Zinc ore.

3. Saponification Reaction

4. Hydrogenation of propene.

5. Reaction of metal hydrogencarbonate with dilute sulphuric acid.

Tick the correct answer.

- 1 In Photosynthetic process, atmospheric carbon di oxide is _____ to carbohydrates
 - a) Oxidised
 - b) Reduced
 - c) Neutralised
 - d) Burnt
- 2 On seeing good food our mouth waters. This fluid is actually
 - a) Water
 - b) Hormone
 - c) Enzyme
 - d) None of the above
- 3 The enzyme Pepsin is inactive in stomach without the presence of
 - a) Nitric Acid
 - b) Hydrochloric acid
 - b) Acetic acid
 - d) Butyric acid
- 4 During cellular respiration one molecule of glucose is first broken down into two molecules of _____
 - a) Acetic acid
 - b) Pyruvic acid
 - c) Lactic acid
 - d) None of the above
- 5 The transport of soluble products of photosynthesis is called translocation and it occurs in the part of the vascular tissue called
 - a) Xylem
 - b) Sclerenchyma
 - c) Phloem
 - d) Collenchyma
- 6 Gustatory receptors will detect _____
 - a) light
 - b) Taste
 - c) Smell
 - d) Touch
- 7 Involuntary actions including blood pressure, salivation and vomiting are controlled by the _____ in the hind-brain.
 - a) Medals
 - b) Cerebellum
 - c) Medulla
 - d) Cerebrum
- 8 _____ is a growth inhibitor hormone in plants
 - a) Auxin
 - b) Cytokinin
 - c) Absciscic acid
 - d) Gibberellic acid
- 9 If there is a deficiency of growth hormone the child becomes _____
 - a) Blind
 - b) Mentally retarded
 - c) Giant
 - d) Dwarf

- 10 An animal which can reproduce by budding is
a) Bryophyllum
b) Yeast
c) Hydra
d) All of the above
- 11 A fertilized ovule develops into a _____ in an angiosperm plant
a) Seed
b) Fruit
c) Flower
d) Cotyledon
- 12 The place where fertilization take place in the human body is
a) Uterus
b) Oviduct
c) Ovary
d) vagina
- 13 Pre- natal sex determination has been prohibited by law due to
a) High cost charged by doctors
b) Possible danger of mother's health
c) Increasing cases of female foeticide
d) Increasing cases of male foeticide
- 14 Eggs start developing in human female
a) When she attains puberty
b) Only after her birth
c) After the first menstruation
d) When she is in her mother's womb
- 15 A Yellow and Round seeded pea plant has genotype YyRr. The gametes produced shall be
a) Yy, Rr
b) YR, yR, Yr, yr
c) YR, yr
d) Y, y, R, r
- 16 How life might have originated on earth was experimentally shown by
a) Urey and Miller
b) Oparin and Haldane
c) Watson and Crick
d) None of the above

