



WAPDA CADET COLLEGE TARBELA

Entrance Examination - 2019 for Admission to 11th Class

Time Allowed: 45 Min

Paper -A: ENGLISH

Date: 17 Jun 2019

Total Marks: 100

Q. No. 1 (A) Correct the following sentences. (10)

- i. If you had come on time you would meet the chief guest.
- ii. By this time tomorrow, I will reach station.
- iii. I helped him to go upstairs.
- iv. The cat jumped above the wall.
- v. This is the young man that saved my life
- vi. I saw him before he was married
- vii. I know arif for a long time
- viii. She is having long hair
- ix. Ali works in a bank now
- x. I wish I helped everyone

(B) Change the voice of the given sentences (10)

- i. Take it easy
- ii. Did you ask him to post this letter?
- iii. By whom had he taken help form?
- iv. Please fulfil your responsibility.
- v. The strike was called off by the labourer

(C) Change the narration of the following. (10)

- i. He asked me not to do it.
- ii. He said, "I purchased a new house last year".
- iii. "What did you eat for your breakfast", I said to Ali.
- iv. My mother proposed that I should apply for a bank loan.
- v. "When will you return from office", I said to him.

(D) Use correct form of verb in brackets. (10)

- i. I shall take you around the field when you (take) some rest
- ii. The man reached (receive) his gift.
- iii. The bus (stop) before we stepped out.
- iv. I found my friend (wait) when I reached station.
- v. When did you (write) this essay.

Q. No. 2 Write an essay on any one of the following topics of about 50-200 words. (20)

- i. Climate Changes.

Q. No. 3 Write a letter to your friend sharing your feeling about your upcoming College life-its new experience, challenges and excitements. (15)

Q. No. 4 Read the following passage carefully and answer the questions given at the end. (10)
There are a few people in the world today who have brought more happiness to children than Enid Blyton. The children of Britain love her and her books and so do most other nations, for her stories have been translated into many languages. Enid Blyton is justly termed the "World's Story-Teller". But she is more than that. She is the guide, philosopher and friend of countless boys and girls amusing them by her stories standing for all that is right and fair, a person of complete sincerity who is fearless in her convictions and belief trusted alike by parents and children.

Questions

- i. What do children of Britain love Enid Blyton?
- ii. What is she termed as?
- iii. How is she guide and friend of countless children?
- iv. What reward does Blyton get from Parents and Children?
- v. What is she stand for?

Q. No. 5 Develop the following lines into a complete Story (05)
Ahmed was ten years old and sole son of Poor parents, living in a village near Rawalpindi. His father would go to the city for work daily before dawn and return late in evening. One night his mother was very sick and this father had not returned home. It was raining heavily.....

Q. No. 6 Translate any five of the following into English. (10)

- ۱۔ آپ کو میری کتاب واپس کرنی چاہیے تھی۔
- ۲۔ اگر آپ ناراض ہونا چاہتے ہیں تو آپ کو ایبٹ آباد سے گزرنا ہوگا۔
- ۳۔ یہ تم نے کیا کیا؟
- ۴۔ کاش کہ وہ ایسے نہ کرتا۔
- ۵۔ اگر میں وقت پر آتا تو کھانا کھاتا۔



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Paper -B: CHEMISTRY

Total Marks: 100

Date: 17 Jun 2019

Q. No. 1 Choose the correct answer and encircle it.

(2 × 15 = 30)

- I Recognize the and exist in MgO
 - a. Covalent
 - b. H-Bonding
 - c. Coordinate
 - d. Ionic
- ii. The B Point of water at mount Everest is
 - a. 50 °C
 - b. 65 °C
 - c. 60 °C
 - d. 70 °C
- iii. Sodium react with cold water and forms.
 - a. Na₂O
 - b. Na₂CO₃
 - c. NaOH+H₂
 - d. NaH
- iv. Which of the following halogen is strong oxidizin agent?
 - a. I₂
 - b. Cl₂
 - c. Br₂
 - d. F₂
- v. Which of the following is an alcohol?
 - a. CH₃-CH₂-O-CH₃
 - b. CH₃-CH₂-OH
 - c. C₆H₅-OH
 - d. CH₃-CH₂-COOH
- vi. For reversible reaction $K_c = \frac{[C]}{[A][B]}$ which substance is produced of reaction
 - a. A
 - b. Both A and B
 - c. B
 - d. C
- vii. In the following reaction which species is donating an electron pair?
 $NH_3 + BF_3 \rightarrow H_3N - BF_3$
 - a. H
 - b. N
 - c. B
 - d. BF₃
- viii. Which is reddish brown gas
 - a. NO₂
 - b. SO₂
 - c. NO
 - d. O₃
- ix. A physical and chemical reaction that occurs by itself is called
 - a. Non-Spontaneous
 - b. Exothermic
 - c. Spontaneous
 - d. Endothermic
- x. Lowest temperature is stratosphere is
 - a. -5 °C
 - b. 5 °C
 - c. -55 °C
 - d. -55 °C
- xi. Which of the following group contain alkaline earth metals?
 - a. I A
 - b. VII A
 - c. II A
 - d. VIII A
- xii. Numbers of neutron in ${}_{13}M^{23}$ are
 - a. 13
 - b. 27
 - c. 14
 - d. 15
- xiii. Bromine has melting point of -7 °C and boiling point 59 °C. What is physical state of bromine at 100 °C
 - a. Gas
 - b. Solid
 - c. Liquid
 - d. Cannot be predicted
- xiv. What is mass of 5 meles of Hydrogen gas?
 - a. 5g
 - b. 10.08g
 - c. 5.04g
 - d. 10.0089g



xv. Choose lewis Acid

- a. CN
- b. H₂O

- c. NH₃
- d. H⁺

Q. No. 2 Attempt any ten short questions, answer should not exceed to 3 line. (4 x 10=40)

- i. Write formula of Chalcopyrite, Silica, Halite?
- ii. How hardness is produced in water?
- iii. Give general formula for Alkane, Alkene, Alkynes, Alkyl radical?
- iv. State law of mass action?
- v. K_c for the reaction is $K_c = \frac{NO_2}{N_2O_2}$ write chemical equation for the reaction and derive unit K_c ?
- vi. What is global warming?
- vii. What is baeyer's test?
- viii. Distinguish between mono, di and tri saccharides?
- ix. Identify the group and period of the following elements on the basis of electronic configuration. i) $_{14}A^{28}$ ii) $_{16}B^{32}$ iii) $_{9}C^{19}$
- x. Why an atom is electrically neutral?
- xi. Why sodium has high I.E then potassium?
- xii. What is carbonization?
- xiii. Draw structure o glucose and fructose.

Q. No. 3 Attempt any one question

(30)

A)

- i. What is electroplating, Describe Tin-Plating.
- ii. Define Galvonic cell? Write the reaction occur in Galvonic cell (Daniel Cell)

B)

- i. What is evaporation? Explain why evaporation is cooling process?
- ii. A Solution of NaOH has concentration 1.2 M. Calculate mass of NaOH in g/dm³ in this solution



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Entrance Examination - 2019 for Admission to 11th Class

Paper -C: PHYSICS

Time Allowed: 45 Min

Total Marks: 100

Date: 17 Jun 2019

Q. No. 1 Choose the correct answer and encircle it.

(25 x 2 = 50)

- I. The direction of torque can be found by
 - a. Head to tail rule
 - b. Left hand rule
 - c. Right hand rule
 - d. Torque has no direction
- ii. What will be the value of G, if mass of earth becomes four times.
 - a. One time
 - b. Four time
 - c. Double
 - d. No change
- iii. Weight of the body of mass 10 kg on the surface of moon is
 - a. 160N
 - b. 1.62N
 - c. 16N
 - d. Zero
- iv. If radius of the circle in which the object is moving is doubled, then centripetal acceleration becomes
 - a. Doub
 - b. Three times
 - c. Half
 - d. Four times
- v. Unit of amount of substance is
 - a. Kelvin
 - b. Candela
 - c. Mole
 - d. Ampere
- vi. Walking on road is an example of
 - a. First Law
 - b. Third Law
 - c. Second Law
 - d. Fourth Law
- vii. A spider web remains intact due to
 - a. Weight
 - b. Tension
 - c. Momentum
 - d. None of these
- viii. Release of energy by sun is due to
 - a. Fission
 - b. Burning of Gas
 - c. Fusion
 - d. Chemical Reaction
- ix. $50^{\circ}\text{C} =$
 - a. 122°F
 - b. 278°F
 - c. 130°F
 - d. 273°F
- x. If $t=0$, then the distance covered is
 - a. $S=Vi$
 - b. Maximum
 - c. Zero
 - d. Minimum
- xi. When two equal opposite and parallel forces acting at two points of the same body, then form
 - a. Torque
 - b. Momentum
 - c. Moment of Couple
 - d. Couple
- xii. When an object is resting on a smooth horizontal surface, weight of the object is balanced by
 - a. Normal reaction
 - b. Friction
 - c. Torque
 - d. Couple
- xiii. Which one is an example of simple harmonic motion
 - a. Motion of Simple Pendulum
 - b. Spinning of earth
 - c. Motion of ceiling fan
 - d. Bouncing ball on a floor

- xiv. Which of the following can be used to produce both transvers and longitudinal waves?
- A string
 - A helical spring
 - 54g
 - A tuning fork
- xv. The index of refraction depends upon
- Focal length
 - Image distance
 - Speed of light
 - Object distance
- xvi. Which type of image is formed by a conver lens on screen
- Inverted, real
 - Upright, real
 - Inverted, virtual
 - Upright, virtual
- xvii. If a ray of light in glass is incident on an air surface at an angle greater than critical angle, the ray will
- Refract only
 - Partially reflected
 - Inverted, virtual
 - Diffract only
- xviii. The angle of prism $\angle A$ is equal to
- 30°
 - 60°
 - 45°
 - 90°
- xix. $\sin 60^\circ =$
- 0.5
 - 0.866
 - 0.707
 - 1
- xx. One pico farad is equal to
- 10^{-3} Farad
 - 10^{-19} Farad
 - 10^{-6} Farad
 - 10^{-12} Farad
- xxi. If both terminals of galvanometer are at same potential, then the deflection in the galvanometer will be
- Maximum
 - Zero
 - Minimum
 - Between zero and maximum
- xxii. Electrical power is given by
- VI
 - V^2/R
 - I^2R
 - All of these
- xxiii. Which of the following is not a derived unit
- Pascal
 - Newton
 - Kilogram
 - watt
- xxvi. If $X=A$, in case of AND gate, then X is 1 when
- A and B are 1
 - A is 1, B is 0
 - A or B is 0
 - A is 0, B is 1
- xxv. One of the isotopes of uranium is ${}^{238}\text{U}$, the number neutrons in this isotope is
- 92
 - 238
 - 146
 - 330

Q. No. 2 Attempt all questions (3 x 10=30)

- Will a vector be zero if one of its components is zero?
- What is the direction of motion of an object moving in a circle?
- A capacitor holds 0.06C of charge when fully charged by a 9 volt battery. Calculate the capacitance of the capacitor

Q. No. 2 Attempt all questions (2 x 10=20)

- What is a thermometer? Why is mercury preferred in a thermometer?
- What is the effect of emission of alpha, beta, gamma particles on atomic number and mass number of a radioactive element?

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Entrance Examination - 2019 for Admission to 11th Class

Time Allowed: 45 Min

Paper -D: BIOLOGY (For Medical Students)

Date: 17 Jun 2019

Total Marks: 100

Q. No. 1 Choose the correct answer and encircle it.

(2 x 10 = 20)

- i. During which phase of mitosis spindles are formed?
 - a. G₂
 - b. Metaphase
 - c. Interphase
 - d. Prophase
- ii. The death of heart tissues is called
 - a. Myocardial infarction
 - b. Arteriosclerosis
 - c. Thalassemia
 - d. Atherosclerosis
- iii. Sulphonamides affect bacteria in the following way
 - a. Break cell wall
 - b. Stop the synthesis of new cell wall
 - c. Inhibit protein synthesis
 - d. Stop the synthesis of folic acid
- iv. Which one of the following is NOT the characteristics of wind pollinated flowers?
 - a. Flowers hang down
 - b. Petals green
 - c. Stigma feathery
 - d. Stamen enclosed inside ring of petal
- v. Process of conversion of simple absorbed food into complex compounds that became part of the body is called as
 - a. Digestion
 - b. Ingestion
 - c. Assimilation
 - d. Absorption
- vi. The vector DNA and the attached gene of interest are collectively called
 - a. Re combination DNA
 - b. Translated DNA
 - c. Transplant DNA
 - d. Transcribed DNA
- vii. Which of the following organs of our body destroys old red blood cells (RBCs)
 - a. Lung
 - b. Kidney
 - c. Heart
 - d. Liver
- viii. All of these are hormones except
 - a. Insulin
 - b. Thyroxin
 - c. Pepsinogen
 - d. Glucagon
- ix. Macrospores form the
 - a. Male gametophyte
 - b. Female gametophyte
 - c. Ovary
 - d. Ovule
- x. The best example of co dominance is
 - a. Rose
 - b. RH blood group
 - c. ABO blood group
 - d. Pea

Note: Attempt any four of the following

(4 x 20 = 80)

- Q. No. 2 a) Write detailed note on nucleus (10)
b) Explain the effects of temperature and substrate concentration on rate of enzyme action. (10)
- Q. No. 3 a) Explain the male reproductive system of Rabbit (10)
b) Write note on Binary Fission in bacteria and budding (10)
- Q. No. 4 a) Explain in detail the structure of Human Stomach. Also draw diagram (10)
b) Explain the structure and function of Nephron. (10)
- Q. No. 5 a) What are antagonistic Muscle, explain their working with an example (10)
b) Write note on Pituitary Glands. (10)
- Q. No. 6 a) Explain the structure of Human heart. (10)
b) What are antibiotics? Explain their types. (10)



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Time Allowed: 45 Min Paper -E: MATHEMATICS (For pre-Engg Students)

Total Marks: 100

Date: 17 Jun 2019

Q. No. 1 Fill in the blanks with appropriate words given in brackets (2 x 5 = 10)

- i. If $6:m :: 9:12$, the value of m will be
 - a. 8
 - b. 9
 - c. 18
 - d. 4
- ii. The length of each side of a regular octagon is 3cm, its perimeter is
 - a. 24cm
 - b. 9cm
 - c. 27cm
 - d. 18cm
- iii. Angle inscribed in a semi-circle is
 - a. $\pi/2$
 - b. $2\pi/3$
 - c. $\pi/3$
 - d. $\pi/4$
- iv. If $b=0$ in a quadratic equation $ax^2+bx+c=0$, the equation is called
 - a. Standard
 - b. Exponential
 - c. Pure
 - d. Reciprocal
- v. If two circles of radii 6cm and 2cm touches externally then the distance between their centers equal to
 - a. 8
 - b. 6
 - c. 4
 - d. 2

Q. No. 1 B Fill in the blanks. (2 x 5 = 10)

- i. $\sin^2 3\theta/2 + \cos^2 3\theta/2 =$ _____
- ii. The number of methods to solve a quadratic equation are _____
- iii. If $b^2 - 4ac=0$, then roots of $ax^2 + bx + c=0$ are _____
- iv. If $\alpha\beta$ are the roots of $5x^2+3x-9=0$, then product of roots is _____
- v. A line which has two points in common with a circle is called _____

Q. No. 2 Resolve $\frac{x-11}{(x-4)(x+4)}$ into partial fraction. (10)

Q. No. 3 Solve the equation $5^{1+x} + 5^{1-x} = 26$ (15)

Q. No. 3 Use synthetic division, solve the equation $3x^3-11x^2+5x+3=0$ when 3 is the root of equation. (10)

Q. No. 5 Find a & b of $(3-2a, b-1)=(a-7, 2b+5)$ (10)

Q. No. 6 Solve $\frac{(x+5)^3 - (x-3)^3}{(x+5)^3 + (x-3)^3} = \frac{13}{4}$ (15)

Q. No. 7 If $U=N$, then verify De-Morgan's Law by using $A=\phi$ and $B=P$. (10)

Q. No. 8 In a circle of radius 12m. Find the length of an arc which subtends a central angle $\theta=1.5$ radian. (10)