DAV MUKHYAMANTRI PUBLIC SCHOOL, KANSABEL.JASHPUR, (C.G.) 496223

SUMMER VACATION HOLIDAY HOMEWORK- (2020-21)

CLASS: XII SC. **SUB: CHEMISTRY**

MCQs:

1. The role of a catalyst is to change _____.

- (i) gibbs energy of reaction.
- (ii) enthalpy of reaction.
- (iii) activation energy of reaction.
- (iv) equilibrium constant.

2. In the presence of a catalyst, the heat evolved or absorbed during the reaction _____.

- (i) increases.
- (ii) decreases.
- (iii) remains unchanged.
- (iv) may increase or decrease.

3. Activation energy of a chemical reaction can be determined by _____.

- (i) determining the rate constant at standard temperature.
- (ii) determining the rate constants at two temperatures.
- (iii) determining probability of collision.
- (iv) using catalyst.

4. Consider the Arrhenius equation given below and mark the correct option. $Ae^{-E}a^{/RT}$

- (i) Rate constant increases exponentially with increasing activation energy and decreasing temperature.
- (ii) Rate constant decreases exponentially with increasing activation energy and decreasing temperature.
- (iii) Rate constant increases exponentially with decreasing activation energy and decreasing temperature.
- (iv) Rate constant increases exponentially with decreasing activation energy and increasing temperature.

5. Which of the following statements is correct?

- (i) The rate of a reaction decreases with passage of time as the concentration of reactants dereases.
- (ii) The rate of a reaction is same at any time during the reaction.
- (iii) The rate of a reaction is independent of temperature change.
- (iv) The rate of a reaction decreases with increase in concentration of reactant(s).

6. Which cell will measure standard electrode potential of copper electrode?

- (i) Pt (s) | H_2 (g,0.1 bar) | H^+ (aq.,1 M) || Cu^{2+}(aq.,1M) | Cu
- (ii) Pt(s) | H_2 (g, 1 bar) | H^+ (aq.,1 M) || Cu^{2+} (aq.,2 M) | Cu
- (iii) Pt(s)| H_2 (g, 1 bar) | H^+ (aq.,1 M) || Cu^{2+} (aq.,1 M) | Cu
- (iv) Pt(s) | H_2 (g, 1 bar) | H^+ (aq.,0.1 M) || Cu^{2+} (aq.,1 M) | Cu

7. The difference between the electrode potentials of two electrodes when no current is drawn through the cell is called _____.

- (i) Cell potential
- (ii) Cell emf
- (iii) Potential difference
- (iv) Cell voltage

8. Which of the following statement is not correct about an inert electrode in a cell?

- (i) It does not participate in the cell reaction.
- (ii) It provides surface either for oxidation or for reduction reaction.
- (iii) It provides surface for conduction of electrons.
- (iv) It provides surface for redox reaction.

9. Which of the statements about solutions of electrolytes is not correct?

- (i) Conductivity of solution depends upon size of ions.
- (ii) Conductivity depends upon viscosiy of solution.
- (iii) Conductivity does not depend upon solvation of ions present in solution.
- (iv) Conductivity of solution increases with temperature.

10. The cell constant of a conductivity cell _____.

- (i) changes with change of electrolyte.
- (ii) changes with change of concentration of electrolyte.
- (iii) changes with temperature of electrolyte.
- (iv) remains constant for a cell.

11. Which of the following polymer is stored in the liver of animals?

- (i) Amylose
- (ii) Cellulose
- (iii) Amylopectin
- (iv) Glycogen

12. Sucrose (cane sugar) is a disaccharide. One molecule of sucrose on hydrolysis gives _____.

- (i) 2 molecules of glucose
- (ii) 2 molecules of glucose + 1 molecule of fructose
- (iii) 1 molecule of glucose + 1 molecule of fructose
- (iv) 2 molecules of fructose

13. Proteins are found to have two different types of secondary structures viz. α-helix and β-pleated sheet structure. α-helix structure of protein is stabilised by :

- (i) Peptide bonds
- (ii) van der Waals forces

- (iii) Hydrogen bonds
- (iv) Dipole-dipole interactions

14. Which of the following acids is a vitamin?

- (i) Aspartic acid
- (ii) Ascorbic acid
- (iii) Adipic acid
- (iv) Saccharic acid

15. Which of the following statements is not true about glucose?

- (i) It is an aldohexose.
- (ii) On heating with HI it forms n-hexane.
- (iii) It is present in furanose form.
- (iv) It does not give 2,4-DNP test.

16. Which of the following polymers of glucose is stored by animals?

- (i) Cellulose
- (ii) Amylose
- (iii) Amylopectin
- (iv) Glycogen

17.Which of the following is not a semisynthetic polymer?

- (i) cis-polyisoprene
- (ii) Cellulose nitrate
- (iii) Cellulose acetate
- (iv) Vulcanised rubber

18.The commercial name of polyacrylonitrile is _____.

- (i) Dacron
- (ii) Orlon (acrilan)
- (iii) PVC
- (iv) Bakelite

19. Which of the following polymers, need atleast one diene monomer for their preparation?

- (i) Dacron
- (ii) Buna-S
- (iii) Neoprene
- (iv) Novolac

20.Which of the folloiwng are characteristics of thermosetting polymers?

- (i) Heavily branched cross linked polymers.
- (ii) Linear slightly branched long chain molecules.
- (iii) Become infusible on moulding so cannot be reused.
- (iv) Soften on heating and harden on cooling, can be reused.

21.Which of the following polymers are thermoplastic?

- (i) Teflon
- (ii) Natural rubber
- (iii) Neoprene
- (iv) Polystyrene

22.Which of the following polymers are used as fibre?

- (i) Polytetrafluoroethane
- (ii) Polychloroprene
- (iii) Nylon
- (iv) Terylene

23. The correct order of increasing acidic strength is _____.

- (i) Phenol < Ethanol < Chloroacetic acid < Acetic acid
- (ii) Ethanol < Phenol < Chloroacetic acid < Acetic acid
- (iii) Ethanol < Phenol < Acetic acid < Chloroacetic acid
- (iv) Chloroacetic acid < Acetic acid < Phenol < Ethanol

24. The reagent which does not react with both, acetone and benzaldehyde.

- (i) Sodium hydrogensulphite
- (ii) Phenyl hydrazine
- (iii) Fehling's solution
- (iv) Grignard reagent

25. Which of the following compounds will give butanone on oxidation with alkaline $KMnO_4$ solution?

- (i) Butan-1-ol
- (ii) Butan-2-ol
- (iii) Both of these
- (iv) None of these

RAO SIR

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DAV MUKHYAMANTRI PUBLIC SCHOOL, KANSABEL, JASHPUR,CG

CLASS: XII SC. **HOLIDAY HOMEWORK** SUB: PHYSICS

1. When a glass rod is rubbed with silk, it

(a) gains electrons from silk.

(b) gives electrons to silk.

(c) gains protons from silk.

(d) gives protons to silk.

2. In general, metallic ropes are suspended on the carriers taking inflammable materials. The reason is

(a) to control the speed of the carrier.

(b) to keep the centre of gravity of the carrier nearer to the earth.

(c) to keep the body of the carrier in contact with the earth.

(d) none of these.

3.Two similar spheres having +Q and -Q charges are kept at a certain distance. F force acts between the two. If at the middle of two spheres, another similar sphere having +Q charge is kept, then it experiences a force in magnitude and direction as

(a) zero having no direction.

(b) 8F towards +Q charge.

(c) 8F towards -Q charge.

(d) 4F towards +Q charge.

4.A charge Q is divided into two parts of q and Q – q. If the coulomb repulsion between them when they are separated is to be maximum, the ratio of Q/q should be

(a) 2:1

(b) 1/2

(c) 4:1

(d) 1/4

5.The electric field inside a spherical shell of uniform surface charge density is

(a) zero.

(b) constant, less than zero.

(c) directly proportional to the distance from the centre.

(d) none of the these

6.Electric field at a point varies as r° for

(a) an electric dipole

(b) a point charge

(c) a plane infinite sheet of charge

(d) a line charge of infinite length

7.The electric field intensity due to an infinite cylinder of radius R and having charge q per unit length at a distance rir r(r > R) from its axis is

(a) directly proportional to r^2.

(b) directly proportional to r3.

(c) inversely proportional to r.

(d) inversely proportional to r^2.

8.The magnitude of electric field intensity E is such that, an electron placed in it would experience an electrical force equal to its weight is given by

(a) mge

(b) mg/e

(c) e/mg

(d) e^2g/m^2

9.Which of the following statement is correct? The electric field at a point is [NCERT Exemplar]

(a) always continuous.

(b) continuous if there is a charge at that point.

(c) discontinuous only if there is a negative charge at that point.

(d) discontinuous if there is a charge at that point.

10.A point charge +q is placed at a distance d from an isolated conducting plane. The field at a point P on the other side of the plane is

(a) directed perpendicular to the plane and away from the plane.

(b) directed perpendicular to the plane but towards the plane.

(c) directed radially away from the point charge.

(d) directed radially towards the point charge

11.Gauss's law will be invalid if

(a) there is magnetic monopoles.

(b) the inverse square law is not exactly true.

(c) the velocity of light is not a universal constant.

(d) none of these.

12.SI unit of permittivity of free space is

(a) Farad

(b) Weber

(c) C2N-1 m-2

(d) C2N-1 m-2

13.The force per unit charge is known as

(a) electric flux

(b) electric field

(c) electric potential

(d) electric current

14.Electric field lines provide information about

(a) field strength

(b) direction

(c) nature of charge

(d) all of these

15.The SI unit of electric flux is

(a) N C-1 m-2

(b) N C m-2

(c) N C-2 m2

(d) N C-1 m2

16.The unit of electric dipole moment is

(a) newton

(b) coulomb

(c) farad

(d) debye

17.If 13.6 eV energy is required to ionise the hydrogen atom, then energy required to remove an electron from n = 2 is

(a) 10.2 eV

(b) 0 eV

(c) 3.4 eV

(d) 6.8 eV.

18.In Bohr's model of an atom which of the following is an integral multiple of $h/2\pi$?

(a) Kinetic energy

(b) Radius of an atom

(c) Potential energy

(d) Angular momentum

19.Which of the following spectral series falls within the visible range of electromagnetic radiation?

(a) Lyman series

(b) Balmer series

(c) Paschen seriee

(d) Pfund series

20.The hydrogen atom can give spectral lines in the Lyman, Balmer and Paschen series. Which of the following statement is correct?

(a) Lyman series is in the infrared region.

(b) Balmer series is in the visible region.

(c) Paschen series is in the visible region.

(d) Balmer series is in the ultraviolet region.

21.The spectral lines in the Brackett series arise due to transition of electron in hydrogen atom from higher orbits to the orbit with

(a) n = 1

(b) n = 2

(c) n = 3

(d) n = 4

22.When a β-particle is emitted from a nucleus then its neutron-proton ratio

(a) increases

(b) decreases

(c) remains unchanged.

(d) may increase or decrease depending upon the nucleus

23.The number of beta particles emitted by a radioactive substance is twice the number of alpha particles emitted by it. The resulting daughter is an

(a) isomer of parent

(b) isotone of parent

(c) isotope of parent

(d) isobar of parent

24.In nuclear reaction, there is conservation of

(a) mass only

(b) energy only

(c) momentum only

(d) mass, energy and momentum

25.Heavy stable nuclei have more neutrons than protons. This is because of the fact that

(a) neutrons are heavier than protons.

(b) electrostatic force between protons are repulsive.

(c) neutrons decay into protons through beta decay.

(d) nuclear forces between neutrons are weaker than that between protons.

26.Radioactivity is the phenomenon associated with

(a) decay of nucleus.

(b) production of radio waves.

(c) transmission of radio waves.

(d) reception of radio waves.

27.Equipotentials at a great distance from a collection of charges whose total sum is not zero are approximately

(a) spheres

(b) planes

(c) paraboloids

(d) ellipsoids

28.If a unit positive charge is taken from one point to another over an equipotential surface, then

(a) work is done on the charge.

(b) work is done by the charge.

(c) work done is constant.

(d) no work is done.

29.A conductor with a positive charge

(a) is always at +ve potential.

(b) is always at zero potential.

(c) is always at negative potential.

(d) may be at +ve, zero or -ve potential.

30.64 drops each having the capacity C and potential V are combined to form a big drop. If the charge on the small drop is q, then the charge on the big drop will be

(a) 2q

(b) 4q

(c) 16q

(d) 64q

DAV MUKHYAMANTRI PUBLIC SCHOOL, KANSABEL, JASHPUR (C.G.)

Summer Vacation Homework

Class - XII

Subject :- English Core

Topic:- The Last Lesson

MULTIPLE CHOICE QUESTIONS

1.For the last two years, where did all the bad news come from?

(a) the Bulletin Board
(b) Town Hall

(c) school
(d) M. Hamel's House

2.Who asked Franz not to hurry to school?

(a) Old Hauser

(b) former Mayor

(c) former Postmaster

(d) blacksmith Watcher

3.What was M. Hamel going to question Franz about?

(a) participles

(b) adjectives

(c) old primer

(d) Ba be bi bo bu

4. What was unusual about M. Hamel's dress?

(a) wore clean clothes

(b) wore a brand new outfit

(c) wore clothes he wore on prize days

(d) wore traditional French clothes

5. Who sat on the back bench on the last lesson?

(a) Franz

(b) Prussians

(c) the village people

(d) The new teacher

6. What order had come from Berlin?

(a) to close the school

(b) teach German in schools of Alsace and Lorraine

(c) to open a new school in Alsace and Lorraine

(d) that Hamel would have to leave

7. Why did Hamel blame himself?

(a) not having taught them enough French

(b) not being strict

(c) giving students a holiday at times

(d) not being responsible

8. What does the last lesson taught by Hamel symbolize?

(a) no more teaching of French (b) domination of Prussia

(c) learning of German (d) loss of language and loss of freedom

9.What is the moral that the Alphonse Daudet wants to bring out?

(a) not to put off things that one can do that day

(b) old order changed to new

(c) one should accept everything that happens

(d) teachers should be respected

10. What does the marching of soldiers under the windows represent?

(a) the departure of Hamel
(b) dawn of Prussia in France

(c) freedom for Franz
(d) sorrow of the villagers

11.What does M. Hamel's motionless posture reflect?

(a) the school is dismissed
(c) changing order of life

(b) sense of finality
(d) feeling of nostalgia

12. Why does Hamel blame the parents?

(a) they preferred children to work in farms

(b) they were not strict

(c) they did not come to M. Hamel's class

(d) they did not love the French language

13.Franz thinks- will they make them sing in German- even the pigeons? What could this mean?

(a) German would use brutal force over everyone

(b) harsh orders will be passed

(c) when people are deprived of their essence even the surroundings are affected.

(d) the Germans will rob France of its language.

14.Why does the author urge the reader to respect his language?

(a) It is what makes you respect your countrymen.

(b) It is the key to freedom.

(c) You can express yourself.

(d) It is unique and reflects literature and art.

15. M. Hamel is introduced as a ruler-wielding teacher. This demonstrates that:

(a) he is concerned.
(b) he is adamant.

(c) he is unfeeling.
(d) he is a hard taskmaster.

16. M. Hamel emerges as a when he teaches his last lesson.....

(a) meek person (b) true patriot (c) repentant man (d) defeated the man

17. What was Franz banking on to enter the class as he was late?

(a) M.Hamel's teaching on the blackboard

(b) commotion in the class

(c) Hauser helping him sneak in

(d) to quietly walk in when everyone was preoccupied with participles

18. Which district came under the Prussian rule?

(a) Alsace and Berlin (b) Berlin and Lorraine

(c) Alsace and Lorraine (d) the southern districts of France

19. Franz looked for opportunities to skip school to do what?

(a) work on mills **(b) go fishing**

(c) water the plants **(d) collect birds eggs**

20. 'Viva la France' became an emotional evidence of M. Hamel's?

(a) sadness and patriotism.

(b) finality and depression.

(c) nostalgia and emotional outburst.

(d) love for the school and teaching as a profession.

GRAMMAR

21.Change the voice:-

1. Someone killed the dog.

2. She gave birth to her daughter, Zainab, in Russia.

3. People inspire me.

4. Bharat Vikas Group now employs 16000 workers.

5. We could do all that in groups.

6. My light sleep was suddenly disturbed by a jolt along the bed.

7. It is high time someone told him to stop behaving like a fool.

8. The police questioned each of us about his movements on the night of the crime.

9. Before they invented printing, people had to write everything by hand.

10. Do you intend us to take your remarks seriously?

22.Change the following to reported speech:-

1. ‘Does anyone have a functioning second-hand PC?’ he asked.

2. She said to the woman, ‘If you wouldn’t mind, I would like to drive you there.’

3. ‘I do not feel those things anymore as it was all the foolishness of childhood,’ said the doctor.

4. ‘What are you going to do with these, Grandpa?’ I asked him.

5. ‘I did it because I was confident that we will deliver,’ he said.

6. ‘If you perform well, then I will continue, otherwise I will throw you out,’ he said.

7. ‘I will never forgive you,’ he said angrily.

8. Chogyal asked, ‘Where is it?’

‘On the town periphery,’ Madam Kueron said.

9.He said, ‘I caught the fish this morning before I left.’

10.I asked him, ‘What is your background?’

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CLASS XII **PHYSICAL EDUCATION**

NANDAN CHINHARA

PRT (PET)

SUMMER VACATION HOLIDAY HOMEWORK

CHOOSE THE CORRECT ANSWER.

1) The food which we eat is known as _____?
   a) Nutrition b) Balanced Diet c) Diet d) Vitamin

2) The energetic food in our diet consists of various types of essential chemical for our body is known as _____?
   a) Nutrition b) Diet c) Nutrients d) Energy

3) The science which deals with nutritious diet and it's important for the individual is known as _____?
   a) Nutrition b) Balanced diet c) Diet d) Vitamins

4) Nutritious diet is known as _____?
   a) Energetic diet b) Balanced diet c) Vitamins d) None of the above

5) Intake of appropriate type and adequate amount of food to supply energy and to support grow and development to ensure good health of an individual.
   a) Nutrients b) Carbohydrates c) Balanced diet d) Water

6) _____ % of carbohydrates should be in our diet.
   a) 50-80 b) 40-50 c) 65-75 d) 60-70

7) One should drink _____ litres of water to maintain water balance of the body.
   a) 2-3 b) 5-6 c) 4-5 d) 3-5

8) _____ required in large proportion in our diet.
   a) Macronutrients b) Micronutrients c) fats d) fibres

9) _____ are required in small proportion in out diet.
   a) Macronutrients b) Micronutrients c) Water d) Nitrogen

10) _____ include carbon, hydrogen, oxygen and nitrogen.
   a) Manganese b) Zinc c) Sodium d) Macronutrients

11) _____ is a Nutritive components.
   a) Carbohydrates b) Fats c) Proteins d) All the above

12) _____ is a non-nutritive component.
   a) Vitamins b) Minerals c) Water and fibres d) All the above

13) _____ is the major fuel for muscular contraction.
   a) Carbohydrates b) Water c) Fats d) None of these

14) _____ are the compounds of carbon, hydrogen and oxygen with chemical formula CHO.
   a) Simple carbohydrates b) Complex carbohydrates c) carbohydrates d) None of these

15) The body breaks down starches and sugar into substances called _____?
   a) Amino acids b) Bajra c) glucose d) Glycogen

16) _____ are found in fruits, low fats milk, table sugar, jam, potato, carrot, candy etc.
   a) Simple carbohydrates b) Complex carbohydrates c) Water d) Glucose

17) _____ are found in bread, cereals, whole pulse.
   a) Complex carbohydrates b) carbohydrates c) Fructose d) Galactose

18) _____ are the basic structure of all living cells required for muscles growth and repair of body tissues.

a) Fats b) Water c) Carbohydrates d) Proteins

19) _____ helps to repair or replace the worn out tissues.

a) Enzyme b) Hormones c) Proteins d) Hydrogen

20) Pulses, milk, dairy products, soya beans, eggs, meat et' are the sources of _____?

a) Non-essential proteins b) Proteins c) Essential proteins d) None of these

21) How many non-essential proteins are found.

a) >5 b) >10 c) >13 d) <13

22) Grains, dry-fruits , vegetables are the sources of _____?

a) Proteins b) Essential proteins c) Non essential proteins d) None of these

23) How many essential amino acids are found which are taken from food and that are not made in body.

a) 5 b) 7 c) 9 d) 13

24) According to a dietician _____ % of proteins should we take in our daily diets.

a) 7-10 b) 14-21 c) 15-20 d) 16-20

25) The deficiency diseases of proteins are _____?

a) Kwashiorkor b) Marasmus c) Both above d) None of these

26) On an average of 1 grams of fat on burning givers _____ calories of energy.

a) 9 b) 10 c) 12 d) 7

27) _____ are the emergency source of energy.

a) Water b) Proteins c) Vitamins d) Fats

28) _____ help during blood clotting, maintenance of skin and hair.

a) Fats b) Carbohydrates c) Vitamins d) Minerals

29) Our diet should consists of _____ % of fats.

a) 7-12 b) 5-10 c) 6-10 d) 5-11

30) _____ is complex compound of carbon.

a) Minerals b) Carbohydrates c) Vitamins d) Fats

31) The vitamins that are soluble in fat is known as _____?

a) Water soluble b) Mineral soluble c) Fat soluble d) None of these

32) Which vitamins are fat-soluble vitamins.

a) B b) C c) A,D,E & K d) None of these

33) Vitamin A is also known as_____?

a) Beri-Beri b) Pellagra c) Rickets d) Retinol

34) Which vitamin is needed for nominal growth and development of eyes and skin.

a) C b) K c) A d) D

35) Deficiency of vitamin A cashed _____?

a) Beri-Beri b) Rickets c) Pellagra d) Night blindness

CLASS – XII

DAV MPS KANSABEL

Subject Hindi

प्रश्न क्र.1 दिए गए प्रश्नों के उत्तर विकल्प में से चुनकर लिखिए –

1 विचारों का आदान-प्रदान क्या कहलाता है

क,) समाचार ख) संचार ग) फीडबैक घ) इनमें से कोई नहीं

2 रेडियो किस तरह का माध्यम है ?

क) प्रिंट माध्यम ख) सांकेतिक ग) दोनों घ) इलेक्ट्रिक

3 ऑल इंडिया रेडियो की स्थापना कब हुई ?

क) 1940 ख) 1930 ग) 1936 घ) 1950

4 विशेष लेखन दो प्रकार का होता है -

क) खोजी रिपोर्ट इन डेप्थ रिपोर्ट ख) समाचार व फीचर

ग) स्तंभ लेखन व बीट घ) इन्ट्रो व पीत पत्रकारिता

5 जो पत्रकार भुगतान के लिए अलग-अलग अखबारों में लिखते हैं उन्हें कहते हैं

क) अंशकालिक ख) पूर्णकालिक ग) फ्रीलांसर घ) संवाददाता

6 जो फोन पर बात करके दर्शकों तक सूचना पहुंचाता है, उसे क्या कहते हैं

क) लाईव ख) फोन इन ग) इन्ट्रो घ) फ्लैश

7 प्रिंट मीडिया के प्रमुख माध्यम होते हैं -

क) पत्र-पत्रिकाएँ ख) पुस्तकें ग)इंटरनेट घ) पुस्तकें पत्र पत्रिकाएं

8 भारत में पहली मूक फिल्म किसने बनाई थी ?

क) सत्यजीत राय ख) दादासाहब फालके ग) गुरुदत्त घ) महबूब खान

9 पुलित्जर पुरस्कार किस क्षेत्र में दिया जाता है ?

क,) खेल ख) पत्रकारिता ग) फिल्म घ) राजनीति

10 जो खबर बिना दृश्य के घटनाक्रम को कब कहां और कैसे दर्शकों को बताने वाला कहलाता है

क) लाईव ख,) एंकर पैकेज ग) ड्राई एंकर घ) एंकर विजुअल

11 जो पत्रकारिता सरकारी कामकाज पर निगाह रखती है और गड़बड़ियों का पर्दाफाश करती है उसे कहते हैं -

क) पीत पत्रकारिता ख) वाचडॉग पत्रकारिता

ख) एडवोकेसी पत्रकारिता घ) खोज परख पत्रकारिता

12 प्राप्त संदेश में निहित अर्थ को समझाने की कोशिश कही जाती है

क) एनकोडिंग ख,) डिकोडिंग ग) शोर घ) फीडबैक

13 हिंदी का पहला साप्ताहिक पत्र कौन सा था ।

क) उदन्त मार्तण्ड ख) सरस्वती ग) प्रदीप घ) हंस

14 मैं स्नेह-सुरा का पान किया करता हूं। पंक्ति में अलंकार है

क) यमक ख) श्लेष ग) रुपक घ) अनुप्रास

15 किसी घटना का घटनास्थल से सीधा प्रसारण कहलाता है

क) एंकर बाइट ख) विजुअल ग) लाईव घ) डिकोडिंग

प्रश्न क्र.2 पीत पत्रकारिता किसे कहते हैं ?

प्रश्न क्र.3 कविता लेखन की किन्ही तीन विशेषताओं को बताइए ।

प्रश्न क्र.4 आजादी से पहले के किन्ही पांच पत्रकारों के नाम लिखिए ।

प्रश्न क्र.5 एंकर बाइट किसे कहते हैं ?

प्रशन क्र.6 अपने शहर में पानी की समस्या की ओर ध्यान आकर्षित करते हुए किसी समाचार पत्र के संपादक को पत्र लिखिए ।

प्रश्न क्र. 7 स्वदेश प्रेम पर एक रचनात्मक लेख लिखिए ।

प्रश्न 8 दिए गए किसी एक विषय पर निबंध लिखिए।(250से300शब्दों में,)

क) इंटरनेट की दुनिया

ख) जन आंदोलन और सरकार

ग) महंगाई की मार

DAV MPS KANSABEL JASHPUR

SUMMER VACATION HOLIDAYS HOME WORK(2020)

Subject -Maths. Class-XII

Q.1. The number possible matrix of order 3x3 with each entry 0 or 1 is

a) 27 b) 18 c) 81 d) 512

Q.2. If $A=\begin{pmatrix} 1 & 0 & 1 \\ 0 & 1 & 2 \\ 0 & 0 & 4 \end{pmatrix}$, then show that $|3A|$ is

a) 27 b) $27|A|$ c) $45|A|$ d) None of these

Q.3. The matrix $\begin{pmatrix} 0 & -5 & 8 \\ 5 & 0 & 12 \\ -8 & -12 & 0 \end{pmatrix}$ is a

a) diagonal matrx b) symmetry matrix c) skew- symmetery matrix

d) scalar matrix

Q.4. Let A = { 1,2,3} and consider the relation R = { (1,1), (2,2), (3,3) (1,2) (2,3) (1,3) } then R is

a) reflexive but not symmetery b) reflexive but not transitive

c) symmetery and transitive d) None of these

Q.5. Let $f:R \rightarrow$ R be defined as $f(x) = x^4$

a) f is one –one onto b) f is many- one onto

c) f is one-one but not onto d) f is neither one-one nor onto

Q.6. Cos^{-1} (cos 7π/6) is equal to

a) 7π/6 b) 5π/6 c)π/3 d)π/6

Q.7. which of the given values of x and y make the following pair of matrices equal?

$$\begin{pmatrix} 3x+7 & 5 \\ y+1 & 2-3x \end{pmatrix} = \begin{pmatrix} 0 & y-2 \\ 8 & 4 \end{pmatrix}$$

a) x=-1/3, y=7 b) x=-1/3,y=-2/3

b) y=7,x=-2/3 d) None of these

Q.8.Express the matrix A = $\begin{pmatrix} 3 & -4 \\ 1 & -1 \end{pmatrix}$ as the sum of a symmetery and a skew-symmetery matrix.

a) $\begin{pmatrix} 3 & -4 \\ 1 & -1 \end{pmatrix}$ b) $\begin{pmatrix} -3 & 4 \\ -1 & 1 \end{pmatrix}$ c) $\begin{pmatrix} 3 & 4 \\ 2 & 2 \end{pmatrix}$ d) $\begin{pmatrix} -3 & -4 \\ 1 & -1 \end{pmatrix}$

Q.9. Find the inverse of A = $\begin{pmatrix} 1 & 2 & -2 \\ -1 & 3 & 0 \end{pmatrix}$ using elementary row

0 -2 1

Transformations

a) $\begin{pmatrix} 3 & 2 & 6 \\ 1 & 1 & 2 \\ 2 & 2 & 5 \end{pmatrix}$ b) $\begin{pmatrix} 2 & 6 & 3 \\ 1 & 2 & 1 \\ 4 & 5 & 2 \end{pmatrix}$ c) $\begin{pmatrix} 4 & 7 & 3 \\ 5 & 1 & 1 \\ 6 & 2 & 2 \end{pmatrix}$

d) None of these

Q.10. Evaluate $\begin{vmatrix} 1 & a & b+c \\ 1 & b & c+a \\ 1 & c & a+b \end{vmatrix}$

a) 0 b) 1 c) -1 d)-2

Q.11. If a , b, c are in AP then the determinants $\begin{vmatrix} x+2 & x+3 & x+2a \\ x+3 & x+4 & x+2b \\ x+4 & x+5 & x+2c \end{vmatrix}$

a) 0 b) 1 c) x d) 2x

Q.12. Evaluate $\begin{vmatrix} a^2 & bc & ac+c^2 \\ a^2+ab & b^2 & ac \\ ab & b^2+bc & c^2 \end{vmatrix}$

a) 4abc b) $4a^3bc$ c) $4a^2b^2c^2$ d) None of these

Q.13. The points (2,-3) , (k,-1) , (0,4) are collinear if k =

a) 5/3 b) 10/3 c) 10/7 d) 5/2

Q.14. If A is an invertible matrix of order 2, then det (A^{-1}) is equal to

a) det b) 1/det(A) c) 1 d) 0

Q.15.Solve : 2x+y+z=5 , 3x-y-z=5, 2x+2: 2x+y+z=5 , 3x-y-z=5, 2x+2y-z=3 by matrix method

a) x=2,y=0,z=1 b) x=3,y=1,z=-1 c)x=-2,y=1,z=1 d) x=-2,y=0,z=-1

Q.16. Evaluate $\sec^2(\tan^{-1}2) + \text{Cosec}^2 (\cot^{-1}3)$ is

a) 16 b) 20 c) 14 d) 15

Q.17.$\cos^{-1}$ (cos 13π/6) is equal to

a) 7π/6 b) π/6 c) 2π/6 d) π/3

Q.18.which of the following is the principal value branch of $\text{cosec}^{-1}x$

a) (-π/2, π/2) b) [0, π]-{ π/2} c) [-π/2, π/2] d) [-π/2, π/2] −{0}

Q.19. $\tan^{-1}\sqrt{3} - \sec^{-1}(-2)$ is equal to

a) π b) −π/3 c) π/3 d) 2π/3

Q.20. find the value of $\tan[\cos^{-1}(4/5) + \tan^{-1}(2/3)]$

a) 17/6 b) 17/3 c)16/5 d) 21/3

Q.21. Show that of the relation R in the set A = { x belongs to Z : o≤x≤12} given by R= { (a,b) : a-b is a multiple of 4}

a) reflexive only b) symmetery only c) an equivalence relation

d) None of these

Q.22. Let A = R-{3} and B=R- {1}, consider the function f:A► B defined by f(x) = x-2/x-3

a) one-one and onto b) one-one and many-one c) one-one only

d) None of these

Q.23. If f:R⟶ R and g:R► R are defined respectively as f(x) $=x^2$ + 3x + 1 and g(x) = 2x-3, find the (gof)

a) $2x^2$ +6x-4 b) $2x^2$ + 6x-1 c) $2x^2$+6x-5 d) None of these

Q.24.Consider f:R⟶ R given by f(x) = 4x+3 find the inverse of f

a) x+3/4 b) x-3/4 c) x-4/3 d) y+4/3

Q.25. If $\sin^{-1}x + \sin^{-1}y = 2\pi/3$, then $\cos^{-1}x + \cos^{-1}y$ =

a) 2π/3 b) π/3 c) π/6 d) π

DAV MUKHYAMANTRI PUBLIC SCHOOL, KANSABEL, JASHPUR, CG

HOLIDAY HOMEWORK

CLASS – XII SUB – BIOLOGY

1. A few statements describing certain features of reproduction are given below:
   i. Gametic fusion takes place
   ii. Transfer of genetic material takes place
   iii. Reduction division takes place
   iv. Progeny have some resemblance with parents
   Select the options that are true for both asexual and sexual reproduction from the options given below:

- (a) i and ii;
- (b) ii and iii;
- (c) ii and iv;
- (d) i and iii.

2. The term ‘clone’ cannot be applied to offspring formed by sexual reproduction because:

- a. Offspring do not possess exact copies of parental DNA
- b. DNA of only one parent is copied and passed on to the offspring
- c. Offspring are formed at different times
- d. DNA of parent and offspring are completely different.

3. Amoeba and Yeast reproduce asexually by fission and budding respectively, because they are:

- a. Microscopic organisms
- b. Heterotrophic organisms
- c. Unicellular organisms
- d. Uninucleate organisms.

4. A few statements with regard to sexual reproduction are given below:
   i. Sexual reproduction does not always require two individuals
   ii. Sexual reproduction generally involves gametic fusion
   iii. Meiosis never occurs during sexual reproduction
   iv. External fertilisation is a rule during sexual reproduction
   Choose the correct statements from the options below:

- (a) i and iv
- (b) i and ii
- (c) ii and iii
- (d) i and iv

5. A multicellular, filamentous alga exhibits a type of sexual life cycle in which the meiotic division occurs after the formation of zygote. The adult filament of this alga has

- a. haploid vegetative cells and diploid gametangia
- b. diploid vegetative cells and diploid gametangia
- c. diploid vegetative cells and haploid gametangia
- d. haploid vegetative cells and haploid gametangia.

6. The male gametes of rice plant have 12 chromosomes in their nucleus. The chromosome number in the female gamete, zygote and the cells of the seedling will be, respectively,

- a. 12, 24, 12
- b. 24, 12, 12

- c. 12, 24, 24
- d. 24, 12, 24.

7. Given below are a few statements related to external fertilization. Choose the correct statements.

- i. The male and female gametes are formed and released simultaneously
- ii. Only a few gametes are released into the medium
- iii. Water is the medium in a majority of organisms exhibiting external fertilization
- iv. Offspring formed as a result of external fertilization have better chance of survival than those formed inside an organism(a) iii and iv (b) i and iii (c) ii and iv (d) i and iv

8. The statements given below describe certain features that are observed in the pistil of flowers.
   i. Pistil may have many carpels
   ii. Each carpel may have more than one ovule
   iii. Each carpel has only one ovule
   iv. Pistil have only one carpel
   Choose the statements that are true from the options below:

- (a) i and ii
- (b) i and iii
- (c) ii and iv
- (d) iii and iv

9. Which of the following situations correctly describe the similarity between an angiosperm egg and a human egg?
   i. Eggs of both are formed only once in a lifetime
   ii. Both the angiosperm egg and human egg are stationary
   iii. Both the angiosperm egg and human egg are motile transported
   iv. Syngamy in both results in the formation of zygote
   Choose the correct answer from the options given below:

- a) ii and iv
- (b) iv only
- (c) iii and iv
- (d) i and iv

10. Appearance of vegetative propagules from the nodes of plants such as sugarcane and ginger is mainly because:

- a. Nodes are shorter than internodes
- b. Nodes have meristematic cells
- c. Nodes are located near the soil
- d. Nodes have non-photosynthetic cells

11. Which of the following statements, support the view that elaborate sexual reproductive process appeared much later in the organic evolution.
    i. Lower groups of organisms have simpler body design
    ii. Asexual reproduction is common in lower groups
    iii. Asexual reproduction is common in higher groups of organisms
    iv. The high incidence of sexual reproduction in angiosperms and vertebrates
    Choose the correct answer from the options given below:

- (a) i and iii;
- (b) i and iii
- (c) ii and iv

- (d) ii and iii

12. Offspring formed by sexual reproduction exhibit more variation than those formed by Asexual reproduction because:

- a. Sexual reproduction is a lengthy process
- b. Gametes of parents have qualitatively different genetic composition
- c. Genetic material comes from parents of two different species
- d. Greater amount of DNA is involved in sexual reproduction.

13. Choose the correct statement from amongst the following:

- a. Dioecious (hermaphrodite) organisms are seen only in animals
- b. Dioecious organisms are seen only in plants
- c. Dioecious organisms are seen in both plants and animals
- d. Dioecious organisms are seen only in vertebrates

14. There is no natural death in single celled organisms like Amoeba and bacteria because:

- a. They cannot reproduce sexually
- b. They reproduce by binary fission
- c. Parental body is distributed among the offspring
- d. They are microscopic

15. There are various types of reproduction. The type of reproduction adopted by an organism depends on:

- a. The habitat and morphology of the organism
- b. Morphology of the organism
- c. Morphology and physiology of the organism
- d. The organism's habitat, physiology and genetic makeup

16. Identify the incorrect statement.

- a. In asexual reproduction, the offspring produced are morphologically and genetically identical to the parent
- b. Zoospores are sexual reproductive structures
- c. In asexual reproduction, a single parent produces offspring with or without the formation of gametes
- d. Conidia are asexual structures in Penicillium

17. Which of the following is a post-fertilisation event in flowering plants?

- a. Transfer of pollen grains
- b. Embryo development
- c. Formation of flower
- d. Formation of pollen grains

18. The number of chromosomes in the shoot tip cells of a maize plant is 20.
The number of chromosomes in the microspore mother cells of the same plant shall be:

- a. 20
- b. 10
- c. 40
- d. 15

19. Among the terms listed below, those that of are not technically correct names for a floral whorl are:
    i. Androecium
    ii. Carpel
    iii. Corolla
    iv. Sepal
    - (a) i and iv,
    - (b) iii and iv
    - (c) ii and iv
    - (d) i and ii.
20. Embryo sac is to ovule as is to an anther.
    - a. Stamen
    - b. Filament
    - c. Pollen grain
    - d. Androecium
21. In a typical complete, bisexual and hypogynous flower the arrangement of floral whorls on the thalamus from the outermost to the innermost is:
    - a. Calyx, corolla, androecium and gynoecium
    - b. Calyx, corolla, gynoecium and androecium
    - c. Gynoecium, androecium, corolla and calyx
    - d. Androecium, gynoecium, corolla and calyx
22. A dicotyledonous plant bears flowers but never produces fruits and seeds. The most probable cause for the above situation is:
    - a. Plant is dioecious and bears only pistillate flowers
    - b. Plant is dioecious and bears both pistillate and staminate flowers
    - c. Plant is monoecious
    - d. Plant is dioecious and bears only staminate flowers.
23. The outermost and innermost wall layers of microsporangium in an anther are respectively:
    - a. Endothecium and tapetum
    - b. Epidermis and endodermis
    - c. Epidermis and middle layer
    - d. Epidermis and tapetum
24. During microsporogenesis, meiosis occurs in:
    - a. Endothecium
    - b. Microspore mother cells
    - c. Microspore tetrads
    - d. Pollen grains.
25. From among the sets of terms given below, identify those that are associated with the gynoecium.
    - a. Stigma, ovule, embryo sac, placenta
    - b. Thalamus, pistil, style, ovule

- c. Ovule, ovary, embryo sac, tapetum
- d. Ovule, stamen, ovary, embryo sac

26. Starting from the innermost part, the correct sequence of parts in an ovule are,
    - a. egg, nucellus, embryo sac, integument
    - b. egg, embryo sac, nucellus, integument
    - c. embryo sac, nucellus, integument, egg
    - d. egg, integument, embryo sac, nucellus.
27. From the statements given below choose the option that are true for a typical female gametophyte of a flowering
    i. It is 8-nucleate and 7-celled at maturity
    ii. It is free-nuclear during the development
    iii. It is situated inside the integument but outside the nucellus
    iv. It has an egg apparatus situated at the chalazal end
    - (a) i and iv,
    - (b) ii and iii
    - (c) i & ii
    - (d) ii & iv
28. Autogamy can occur in a chasmogamous flower if:
    - a. Pollen matures before maturity of ovule
    - b. Ovules mature before maturity of pollen
    - c. Both pollen and ovules mature simultaneously
    - d. Both anther and stigma are of equal lengths.
29. Choose the correct statement from the following:
    - a. Cleistogamous flowers always exhibit autogamy
    - b. Chasmogamous flowers always exhibit geitonogamy
    - c. Cleistogamous flowers exhibit both autogamy and geitonogamy
    - d. Chasmogamous flowers never exhibit autogamy
30. A particular species of plant produces light, non-sticky pollen in large numbers and its stigmas are long and feathery. These modifications facilitate pollination by:
    - a. Insects
    - b. Water
    - c. Wind
    - d. Animals.
31. From among the situations given below, choose the one that prevents both autogamy and geitonogamy.
    - a. Monoecious plant bearing unisexual flowers
    - b. Dioecious plant bearing only male or female flowers
    - c. Monoecious plant with bisexual flowers
    - d. Dioecious plant with bisexual flowers
32. In a fertilised embryo sac, the haploid, diploid and triploid structures are:
    - a. Synergid, zygote and primary endosperm nucleus
    - b. Synergid, antipodal and polar nuclei

- c. Antipodal, synergid and primary endosperm nucleus
- d. Synergid, polar nuclei and zygote.

33. In an embryo sac, the cells that degenerate after fertilisation are:
    - a. Synergid, zygote and primary endosperm nucleus
    - b. Synergid, antipodal and polar nuclei
    - c. Antipodal, synergid and primary endosperm nucleus
    - d. Synergid, polar nuclei and zygote.
34. While planning for an artificial hybridization programme involving dioecious plants, which of the following steps would not be relevant:
    - a. Bagging of female flower
    - b. Dusting of pollen on stigma
    - c. Emasculation
    - d. Collection of pollen
35. In the embryos of a typical dicot and a grass, true homologous structures are:
    - a. Coleorhiza and coleoptile
    - b. Coleoptile and scutellum
    - c. Cotyledons and scutellum
    - d. Hypocotyl and radicle.
36. The phenomenon observed in some plants wherein parts of the sexual apparatus is used for forming embryos without fertilisation is called:
    - a. Parthenocarpy
    - b. Apomixis
    - c. Vegetative propagation
    - d. Sexual reproduction.
37. In a flower, if the megaspore mother cell forms megaspores without undergoing meiosis and if one of the megaspores develops into an embryo sac, its nuclei would be:
    - a. Haploid
    - b. Diploid
    - c. A few haploid and a few diploid
    - d. With varying ploidy.
38. The phenomenon wherein, the ovary develops into a fruit without fertilisation is called:
    - a. Parthenocarpy
    - b. Apomixis
    - c. Asexual reproduction
    - d. Sexual reproduction
39. Which of the following hormones is not secreted by human placenta?
    - a. hCG
    - b. Estrogens
    - c. Progesterone
    - d. LH

40. The vas deferens receives duct from the seminal vesicle and opens into urethra as:
    - a. Epididymis
    - b. Ejaculatory duct
    - c. Efferent ductule
    - d. Ureter
41. Urethral meatus refers to the:
    - a. Urinogenital duct
    - b. Opening of vas deferens into urethra
    - c. External opening of the urinogenital duct
    - d. Muscles surrounding the urinogenial duct
42. Morula is a developmental stage:
    - a. Between the zygote and blastocyst
    - b. Between the blastocyst and gastrula
    - c. After the implantation
    - d. Between implantation and parturition
43. The membranous cover of the ovum at ovulation is:
    - a. Corona radiata
    - b. Zona radiata
    - c. Zona pellucida
    - d. Chorion
44. Identify the odd one from the following:
    - a. Labia minora
    - b. Fimbriae
    - c. Infundibulum
    - d. Isthmus

xxxxx END xxxxx