DELHI PUBLIC SCHOOL RANCHI

DP HOLIDAY HOME WORK

ENGLISH

I. Read the following passage carefully and answer the questions that follow:

1. Two weeks ago, I travelled across northeast Karnataka and spent time in the districts of Gulbarga, Bijapur and Yadgir, including many villages and small towns. Almost all my time was spent in government schools, with children, teachers and other functionaries of the system. I also spent some time with people from a few village communities.

2. This large area of Karnataka is very disadvantaged. A week spent in such a region can be very disturbing because it reveals the reality of inequality and injustice that millions of our fellow citizens face. But despite glaringly visible problems and challenges, the week was also deeply energizing and filled me with hope because of the spirit of the people I met there. My experience is best described by two examples.

3. I met a girl who was about 16. She was clear that she wanted to join the police service. She opened up about her life. She spoke of an incident when a man harassed her, and how she confronted him directly and stopped him in his tracks. Her boldness and courage would do anyone proud. She comes from an area riven by deep seated gender disparity and discrimination. Her family is deeply disadvantaged and it is obvious that all odds are heavily loaded against her.

4. However, she is what she is, an individual with courage, conviction and aspirations. She is admirable. A local group of people and an NGO, which mobilize the community to help young girls, have supported her. And she is one among the hundreds who have benefited. The young people I met and the NGO that works with them are a remarkable example of resilience and of battling for justice.

5. I also met, across all villages and small towns, hundreds of teachers from government schools who are deeply committed and motivated. They spend their own money and come on their own time, often on a public holiday or weekend, to learn something new, so that they can become better teachers.

6. I can tell you that even in a successful IT company there will be very few takers if you ask people to come on a Sunday, at their own cost, to learn and become better software engineers. But these teachers do this. They recognize from within

themselves that as educators, they have a deep responsibility. That, in many ways, the future of our children is in their hands.

7. This positive experience with government schoolteachers is not limited to Karnataka but true across the country. Our experience has been that 10-20 per cent teachers everywhere are highly motivated. They lead positive change.

8. It's true that 10-20 per cent are quite disengaged. However even more importantly, the middle 60 per cent work positively if the right atmosphere and support structure is provided. Also, if young people who are just getting into the profession have the right environment, then they can develop as genuinely committed educators.

9. To me, all this is a reason for great hope. It certainly is positive reason for hope that in the frontline of our public education, in the government school system, there are a significant number of people working for genuine improvement. And this includes not just teachers but also officials at various levels of the system.

10. Our schools and colleges need to improve on very many counts. We are aware of these challenges. I believe our efforts to improve the system will receive a big fillip if we harness and channelise abundant positive energy that I alluded to. We can't always keep blaming and castigating people in our public systems because that is no way for any positive change to happen.

11. We have to provide support and create the environment for such change to happen, for people to feel empowered and take initiative. And at the same time, we must strongly reaffirm our commitment to the public education system; this is very fundamental issue.

12. Let me end by saying that all my life, I have learnt that ordinary people are capable of doing extraordinary things. For this they need to be trusted, encouraged and empowered. This is not the only thing that needs to be done, but nothing else will work unless we do this.

(I) On the basis of your understanding of the passage answer the following questions with the help of the given options:

(1) While travelling across Northeast Karnataka, the author

- (i) Spent time in the districts of Gulbarga, Bijapur etc.
- (ii) Also met government school teachers and students etc.
- (iii) Spent time with people from a few village communities.
- (iv) All of the above.

(2) NGO stands for

(i) Non-government organization

- (ii) Neo-government organization
- (iii) Non-governmental organization
- (iv) No-government organization

(3) The author met a girl who

- (i) Was from an advantaged background
- (ii) Had no ambition in life
- (iii) Was bold and courageous
- (iv) Was not supported by the NGO

(4) To progress, any good society needs

- (i) Clean and hygienic environment
- (ii) A committed public education system
- (iii) Technology
- (iv) Both (i) and (ii)

(II) Answer the following questions briefly.

(5) Why did the author find a week spent in Karnataka disturbing?

(6) How did the girl deal with the man who harassed her?

(7) The village teachers were committed. How can we say that?

(8) What percentage does the author say is highly motivated and what is quite disengaged?

(9) What can be done to make people feel empowered and take initiative?

(III) Find words from the passage which mean the same as:

- (10) Deprived (para 2)
- (11) Rebuke severely (para 10)

(12)Prepare a poster on behalf of the Municipal Authority of your city informing the citizens about how to protect themselves against mosquitoes.

Read the extract carefully and answer the questions that follow:

I descend to lave the droughts, Atomies, dust-layers of the globe, And all that in them without me were seeds only, latent, unborn;

- (13) With what purpose does the rain descend from the sky?
- (14) How does the rain help the seeds?
- (15) What is latent and unborn and why?

Assignment for Puja vacation Class XI

Mathematics

- Find the sum of the sequence (i) 7+77+777+777+.....to n terms.
 (ii) .6 +.66 +.666 + ...to n terms (iii) 3+7+13+21+to n terms.
- 2. Prove that (i) $A \ge G$,(ii) $G \ge H$,(iii) A, G and H are in GP.
- 3. a, b, c and d are in GP if and only if $(a^2 + b^2 + c^2)(b^2 + c^2 + d^2) = (ab + bc + cd)^2$ Prove it.
- 4. If *pth*, *qth* and *rth* terms of a GP are *a*, *b* and *c*, respectively. Prove that $a^{q-r}b^{r-p}c^{p-q} = 1$.
- 5. If the first and the nth term of a GP are a and b respectively and P is the product of n terms, Prove that $P^2 = (ab)^n$.
- 6. If $\frac{a^{n+b^n}}{a^{n-1}+b^{n-1}}$ is the GM between a and b, then find the value of n.
- 7. Prove that $n_{P_r} = n 1_{P_r} + r \cdot n 1_{P_{r-1}}$.
- 8. 3 Women and 5 men are to sit in a row for a dinner. Find in how many ways they can be arranged so that (i) no two women sit together (ii)all women sit together .
- 9. If the letters of the word 'RACHIT' are arranged in all possible ways as listed in dictionary, then what is the rank of the word 'RACHIT'?
- 10. Find the number of words with or without meaning which can be made using all the letters of the word 'AGAIN' .If these words are written as in a dictionary, what will be the 50th word?
- 11. Find the number of arrangements of the letters of the word 'INDEPENDENCE '. In how many of these arrangements (i) do the words start with P (ii) do all the vowels always occur together (iii) do the vowels never occur together, (iv) do the words begin with I and end in P.
- 12. In how many ways can the letters of the word 'PERUTATIONS' be arranged ,if the (i) words start with P and end with S (ii)vowels are all together(iii) there are always four letters between P and S?
- 13. What is the number of ways of choosing four cards from a pack of 52 playing card cards ? In how many of these (i) four cards of the same suit ,(ii) four cards belong to four different suits, (iii) are face cards (iv) two are red and two are black cards, (v) cards are of the same colour?
- 14. How many words ,with or without meaning , each of 3 vowels and 2 consonants can be formed from the letters of the word INVOLUTE ?
- 15. A committee of seven has to be formed from 9 boys and 4 girls. In how many ways can this be done when the committee consists of (i) exactly 3 girls (ii) at least 3 girls (iii) at most 3 girls ?
- 16. The Cartesian product $A \times A$ have 9 elements among which are found (-1,0) and(0,1). Find the set A and the remaining elements of $A \times A$.
- 17. Let $A = \{x, y, z\}$ and $B = \{p,q\}$. Find the number of relations from A to B.
- 18. Find the range of the following functions $(i)f(x) = 2 3x, x \in R, x > 0.$ (ii) $f(x) = x^2 + 2, x \in R$.
- 19. Find the domain and range of the real function defined by $f(x) = \sqrt{16 x^2}$
- 20. Prove that $\cos^4 \frac{\pi}{8} + \cos^4 \frac{3\pi}{8} + \cos^4 \frac{5\pi}{8} + \cos^4 \frac{7\pi}{8} = \frac{3}{2}$.
- 21. If $\tan\frac{\theta}{2} = \sqrt{\frac{1-e}{1+e}} \tan\frac{\varphi}{2}$, then show that $\cos\varphi = \frac{\cos\theta e}{1-e\cos\theta}$.

- 22. Prove that $\tan 6^{\circ} \tan 42^{\circ} \tan 66^{\circ} \tan 78^{\circ} = 1$
- 23. Prove that $\sin \frac{\pi}{16} \sin \frac{3\pi}{16} \sin \frac{5\pi}{16} \sin \frac{7\pi}{16} = \frac{1}{8\sqrt{2}}$.

- 24. Prove that $\tan \alpha + \tan \left(\frac{\pi}{3} + \alpha\right) + \tan \left(\frac{2\pi}{3} + \alpha\right) = 3 \tan 3\alpha$. 25. Prove that $\frac{\tan \left(x \frac{\pi}{2}\right) \cos \left(\frac{3}{2}\pi + x\right) \sin^3 \left(\frac{7}{2}\pi x\right)}{\cos \left(x \frac{\pi}{2}\right) \tan \left(\frac{3}{2}\pi + x\right)} = \sin^2 x$. 26. Prove that $\cos^2 x + \cos^2 \left(x + \frac{\pi}{3}\right) + \cos^2 \left(x \frac{\pi}{3}\right) = \frac{3}{2}$. 27. If $\tan x = \frac{3}{4}$, $\pi < x < \frac{3\pi}{2}$, find the value of $\sin \frac{x}{2}$, $\cos \frac{x}{2}$ and $\tan \frac{x}{2}$.

CLASS - 11

PHYSICS - ASSIGNMENT FOR PUJA VACATION

- 1. A car accelerated from rest at constant rate α for some times, after which it decelerates at a constant rate β to come to rest. If the total time elapsed it t second then calculate (a) maximum velocity attained (b) total displacement travelled by car in term of α , β and t.
- A hot air balloon rises vertically upward with a constant velocity of magnitude 20 m/s, releases a sandbag at an instant when the balloon is 25 m above the ground. After it is released, the sandbag is in free fall. Plot acceleration-time, velocity 0time and displacement –time graph for the motion, taking round as origin.
- 3. On a two lane road, car A is travelling with a speed of 36 km/h. Two cars B and C approach car A from opposite directions with speeds of 54 km/h each. At a certain instant, when both car B and C are at a distance of 1 km from A, B decides to overtake car A before C does. What minimum acceleration of B is required to avert an accident?
- 4. Two bodies *A* and *B* of masses 5 kg and 10 kg in contact with each other rest on a table against a rigid wall as shown in the given figure. The coefficient of friction between the bodies and the table is 0.15. A force of 200 N is applied horizontally to *A*. What are (a) the reaction of the partition (b) the action-reaction forces between *A* and *B*? (c) What happens when the wall is removed?



5. Three blocks of masses m1 =10 kg and m2= 20 kg and m3= 30 kg are connected by strings on smooth horizontal surface and pulled by a force of 60 N. Find the acceleration of the system and tensions in the string.



- 6. Two bodies of masses 10 kg and 20 kg respectively kept on a smooth, horizontal surface are tied to the ends of a light string. A horizontal force F = 600 N is applied to (i) A, (ii) B along the direction of string. What is the tension in the string in each case?
- 7. If a body A of mass 'M' is thrown with velocity u at an angle 30° with the horizontal and another body B is of the same mass be projected with the same velocity at angle 60° to the horizontal, then prove that the ratio of horizontal ranges will be 1:1 and that of maximum height will be 1:3.
- 8. A fighter plane flying horizontally at an altitude of 1.5 km with speed 720 km/h passes directly overhead an anti-aircraft gun. At what angle from the Vertical should the gun be fired for the shell with muzzle speed 600 ms⁻¹ to hit the plane? At what minimum altitude should the pilot fly the plane to avoid being hit? (Take $g = 10 \text{ m s}^{-2}$).

- 9. What is a projectile? Derive the expressions for the time of flight, and Maximum height for the projectile thrown upwards at an angle θ with the Horizontal direction. The ceiling of a long hall is 25 m high. What is the maximum horizontal distance that a ball thrown with a speed of 40 m/s can go without hitting the ceiling of the hall?
- 10. Derive an expression for the potential energy stored in a stretched spring. Plot a graph for its variation with displacement from mean position of the spring.
- 11. What is elastic collision? Prove that in one dimensional elastic collision the relative velocity of approach before collision is equals to relative velocity of separation after collision. Find the expression for the velocities of the body after collision. Or

What is coefficient of restitution? What does its significance? Two bodies of equal masses undergo one dimensional elastic collision then find the expression for their velocities after collision.

- 12. A particle starts from the origin at t=0 with a velocity of 10.0 ĵ m/s and moves in the x-y plane with a constant acceleration of (8.0 î+2.0 ĵ) ms⁻². (i) At what time are the x-co-ordinates of the particle 16 m? What are y-co-ordinates of the particle at that time? (ii) What is the speed of the particle e at that time?
- 13. A cyclist is riding with a speed of 27 km/h. As he approaches a circular turn on the road of radius 80 m, he applies brakes and reduces his speed at the constant rate of 0.50 m/s every second. What is the magnitude and direction of the net acceleration of the cyclist on the circular turn?
- 14. Two particles are separated at a horizontal distance *x* as shown in figure. They are projected at the same time as shown in figure with different initial speed given as $u/\sqrt{3}$ m/s and u m/s. What is the time after which the horizontal distance between the particles becomes zero?



- 15. A body is attached to the lower end of a vertical spiral spring and it is gradually lowered to its equilibrium position. This stretches the spring by a length *x*. If the same body attached to the same spring is allowed to fall suddenly, what would be the maximum stretching in this case.
- 16. A body of mass m moving with velocity v makes a head-on collision with another body of mass 2m which is initially at rest. What is m the loss of kinetic energy of the colliding body (mass m)?

Assignment Class XI

- Which of the following has larger dipole moment? Explain.
 1- Butyne or 1 Butene
- Which of the following species has the shortest bond length?
 NO, NO⁺, NO²⁺, NO⁻
- 3. Arrange the following in order of (i) increasing N-O bond length (ii) increasing bond angles. Give reasons

NO₂⁺, NO₂⁻, NO₃⁻

4. Arrange the following compounds in the increasing order of bond length of O – O bond

O₂, O₂ , KO₂

Explain on the basis of ground state electronic configuration of dioxygen in these molecules.

- 5. The dipole moment of KCl is 3.336 x 10⁻²⁹ coulomb metre which indicates that it is a highly polarized molecule. The interatomic distance between K⁺ and Cl⁻ in this molecule is 2.6 x 10⁻¹⁰ m. calculate the dipole moment of KCl molecule, if there were opposite charges of one fundamental unit located at each nucleus. Calculate the percentage ionic character of KCl.
- 6. What is the effect of the following ionization processes on the bond orders in C₂ and O₂? (i) $C \rightarrow C^+ + c^-$ (ii) $O \rightarrow O^+ + c^-$

$$(I) C_2 \rightarrow C_2 + e \qquad (II) O_2 \rightarrow O_2 + e$$

- 7. In both water and diethyl ether, the central atom, viz. O-atom has same hybridization. Then why have they different bond angles? Which one has greater bond angle?
- 8. Give reasons for the following :

(i) The experimentally determined N-F bond length in NF_3 is greater than the sum of the single covalent radii of N and F.

(ii) O-hydroxybenzaldehyde is a liquid at room temperature while p-hydroxy benzaldehyde is a high melting solid.

(iii) PCl₅ exists but NCl₅ does not.

- 9. Account for the following :
 - (i) o- Nitrophenol is volatile in steam but p-nitrophenol is not.
 - (ii) AIF_3 is a high melting solid whereas SiF_4 is a gas.
- 10. Give the structures of the following compounds :-

Aniline, Benzaldehyde, Ethylpropionate, methoxy benzene, o-chlorophenol, propane1,2,3-tricarboxylic acid.

11. Specify the hybridization of the underlined carbon atom in the following compound :-

СН₃<u>С</u>НО, <u>С</u>НСН, Н<u>С</u>ООН

- 12. Why is Trichloroethanoic acid is a stronger acid than ethanoic acid?
- 13. What is the difference between inductive effect and electromeric effect? Explain with the help of examples.
- 14. Identify the type of isomerism present in the following pairs :-

- a. neopentane and n-pentane
- b. ethanol and methoxy methane
- c. butanoic acid and ethylethanoate
- d. butene and cyclobutene.
- 15. What do you understand by 1^0 , 2^0 , 3^0 carbon atoms? Explain with the help of examples.

CLASS XI

CHEMISTRY ASSIGNMENT

UNIT: ORGANIC CHEMISTRY - SOME BASIC ORINCIPLES AND TECHNIQUES

1. Give the IUPAC names of the following compounds:

a)CH₂(OH)CH(OH)CH₂(OH)

b)CH₃CH₂CH(Br) COOC₂H₅

c) CH₃CH₂COCH₂COCH₃

 $d)(CH_3)_2C=CHCOCH_3$

e) $CH_2 = C(CH_3)CH(OH)CH_2CN$

2. Draw the structures of the following compounds:

a) Hex-3-en-1- oic acid

- b) 5,5-Diethylnonan -3 –ol
- c) 1-Bromo-3-chlorocyclohex-1-ene
- d)3-Ethyl-2-hydroxy-4-methylhex-3-en-5-ynoic acid
- 3.Write the condensed formula for each of the following compounds:
- a) Isopropyl alcohol
- b) Methyl –t-butyl ether
- c) 2-Chloro-1,1,1-trifluoroethane
- d) 2- Methylbuta-1,3-diene
- 4. Why does SO_3 acts as an electrophile ?

5. How many metamers of 3-Pentanone are possible ? Write their structures and IUPAC names . Can these be regarded as position isomers as well ?

6.Wrirte the position isomers of diethyl ether. Write their structures and IUPAC names. Can

(A) CH_3COOH (B) CH_3

7. What are carbocations? Dicusss their various types.

8. What are reaction intermediates ? How are they generated by bond fission ?

9. What are carbanions? Discusss their configurations.

(Chemical bonding and molecular structure)

10. Why is PCI_5 trigonal bipyramidal when IF_5 is square pyramidal. ?

11. Which one of the following has the highest bond order?

 N_2 , $N^{2\text{+}}$ or $N^{2\text{-}}$

12. Give reason why H_2^+ ions are more stable than H_2^- though they have the same bond order.

13. Arrange the following bonds in the increasing order of ionic character:-

C-H,F-H,Br-H,Na-I,K-F,Li-Cl.

14.why NH_3 has high dipole moment than NF_3 though both are pyramidal?

15. Draw the resonating structures of ozone and carbon monoxide

 $\underline{CLASS - XI}$

PUJA ASSIGNMENT

Topic : Chemical Bonding and molecular structure

- Q1. Draw resonating structure for SO_4^{2-} ion. Find formal changes on atoms in O_3
- Q2. Give the shape associated with the following molecule
 - a) ClF₃ b) IF₇ c) PCl₅ d) SiH₄
- Q3. Compare relative stability of $O_2, O_2^+, O_2^-, O_2^{-2}$.
- Q4. Write the differences for the followings :
 - a) Atomic orbital and molecular orbital.
 - b) δ Bond and π Bond.
- Q5. Discuss the orbital structure of the following molecules on the basis of hybridisation
 - a) NH_3 b) C_2H_4 c) C_2H_2

Q6. Give reason for the followings :

- a) Bond angle in NH_3 is more than that in H_2O
- b) δ Bond is stronger than π Bond.
- c) Dipole moment of CHF is greater than CH₃Cl
- d) H_2O is liquid at room temperature but H_2S is gas.
- e) H_2O molecule is a tri atomic molecule but its geometry is not linear.
- Q7. The hybridisation of Oxygen in both water and diethyl ether molecule is the same, but they differ in their bond angle : explain.
- Q8. Explain the O-nitro phenol is steam volatile but P-nitro phenol is not.
- Q9. Draw energy level diagram for C_2^+ and C_2^- and find out their magnetic nature.
- Q10. Why molecule of He₂ not formed/ Explain with the help of value bond theory.
- Q11. Write favourable conditions for orbital overlapping.
- Q12. Write Lewis dot structure for :
 - a) BCl₃ b) SOCl₂
- Q13. Write the factors influencing ionic bond formation.

Delhi Public School BIOLOGY Puja Vacation Assignment

Class XI

- 1. Explain the fluid mosaic model of plasma membrane with the help of neat labeled diagram.
- 2. Differentiate the three different types of chloroplasts.
- 3. Explain the structure of cilia & flagella.
- 4. How can you differentiate the followings?
 - (i) The plant cell from an animal cell.
 - (ii) Prokaryotic & Eukaryotic cell.
 - (iii) RER & SER.
 - (iv) Amyloplasts , elaioplasts & aleuroplasts.
- 5. Describe the ultra structure of Nucleus.
- 6. Explain how the chromosomes are classified based on the position of centromere.
- 7. What are nuclear pores? State their function.
- 8. Draw the structure of
 - a) Glucose
 - b) ribose
 - c) Amino acids (Alanine, Glycine and Serine)
 - d) Adenine
 - e) Adenosine
 - f) Glycerol
 - g) Adenylic acid.
- 9. Explain the primary, secondary, tertiary and quaternary structure of protein molecule.
- 10. Describe the structure of DNA and mention its function.
- 11. Justify the statement, 'Amino acids are substituted methanes.'
- 12. Describe the different steps involved in the catalytic cycle of an enzyme action
- 13. Explain peptide, glycosidic and phosphodiester bonds

- 14. Describe the factors affecting enzyme activity.
- 15. Explain the concept of activation energy using a suitable graph.

DELHI PUBLIC SCHOOL RANCHI POOJA ASSIGNMENT Section - A

Objective Type Questions choice questions (Q. 1 to Q.10)

There are four options for each question, out of these, only one is correct. You have to identify the correct option.

1. Which accounting concept is applied when closing stock is valued at lower of cost (purchase cost) or market price of goods?

(a) Realisation Concept	(b) Accrual Concept
(c) Prudence Concept	(d) Matching Concept

- A draws a bill on B for ₹ 60,000. A wants to endorse it to Z in settlement of ₹ 70,000 @ 2% discount with the help of B's acceptance and balance in cash. How much cash will A pay to B?
 (a) ₹ 8,000 (b) ₹ 8,200 (c) ₹ 8,600 (d) ₹ 10,000
- 3. X, a Chartered Accountant earned ₹ 1,20,000 during the financial year 2019-20. Out of which, he received ₹ 1,05,000. He incurred an expense of t 51,000, out of which ₹ 12,000 are outstanding. He also received his fees relating to previous year ₹ 13,500 and also paid ₹ 6,000 expenses of last year. Find out X's income for 2019-20 following cash basis of accounting.
 - (a) ₹69,000 (b) ₹73,500 (c) ₹73,000 (d) ₹1,36,500
- 4. Original cost = ₹ 1,26,000, salvage value = ₹ 6,000. From the information given, calculate depreciation for 2nd year @ 10% p.a. underwritten down value method.
 (a) ₹ 10,800 (b) ₹ 11,340 (c) ₹ 15,000 (d) ₹ 14,000
- 5. According to which principle, revenue is deemed to be realised at the time when sale is made?
 (a) Matching principle
 (b) Principle of full disclosure
 (c) Principle of revenue recognition
 (d) None of these
- 6. Which accounting standard deals with preparation and presentation of cash flow statement? (a) AS 1 (b) AS 2 (c) AS 3 (d) AS 7

7. Rent paid ? 56,000 through cheque. Out of which ? 16,000 treated as advance for the next year. Journalise.

(a) Rent A/c	Dr	16,000	
Prepaid Rent A/c	Dr	40,000	
To Bank A/c			56,000
(b) Prepaid Rent A/c	Dr	56,000	
To Bank A/c			56,000
(c) Rent A/c	Dr	40,000	
Prepaid Rent A/c	Dr	16,000	
To Bank A/c			56,000
(d) Rent A/c	Dr	56,000	
To Prepaid Rent A/c			56,000

- 8. Contra entry is passed when
 - (a) cash is withdrawn from bank
 - (b) cash is deposited in bank
 - (c) cheque previously received is deposited in bank

(1 Mark) Multiple

- 9. X sold goods to Y for ₹ 2,00,000. Half of the amount will be received in cash and balance in bills receivable. For what amount, X should draw the bill on Y?
 - (a) $\gtrless 1.00,000$ (b) $\gtrless 2,00,000$ (c) $\gtrless 50,000$ (d) $\gtrless 3,00,000$
- 10. Errors of commission do not permit
 - (a) correct totalling of balance sheet(b) correct totalling of trial balance(c) the trial balance to agree(d) None of these

Fill in the blanks (Q.11 to Q.12):

Here, each sentence is incomplete due to one missing word. You are required to fill that missing word correctly.

- 11. The amount of depreciation goes on..... every subsequent year under written down value method.
- 12. Rectifying entry of purchase book being undercasted is passed through account.
- 13. A trial balance is only a prima facie evidence of the arithmetical accuracy of records." Do you agree with this statement?

Short Answer Type I Question

14. Briefly explain any three qualitative characteristics of accounting information. Or Define expenditure. Explain any two types of expenditure.

Short Answer Type II Questions

15. From the following information, complete the journal entries. **IOURNAL**

Date	Particulars		LF	Amt (Dr)	Amt (Cr)
(i)	Machine A/c (New)	Dr		10,00,000	
		Dr			
	To Machine A/c (Old)				4,40,000
	To Machine Tools Ltd				
	(Being a old machine having book value ₹ 4,40,000 valued at ₹ 1,50,000 by				
	Machine Tools Ltd. for a new machine of ₹ 10,00,000)				
(ii)		Dr		8,750	8,750
	To Bank A/c				
	(Being the cheque from customer amounting to ₹ 8,750 deposited into bank				
<i>(</i> ····)	was returned dishonoured)				
(111)	Rent A/c (2/3rd of ₹ 45,000)	Dr			45,000
		Dr			
	To Cash A/c				
	(Being ₹ 45,000 rent paid to landlord, and 1/3rd of the premises is occupied				
	by the proprietor for personal residence)				
(iv)		Dr		19,150	19,150
	То				
	(Being the goods costing $\mathbf{\overline{\xi}}$ 19,150 given as charity)				

(4 Marks)

(3 Marks)

- 16. Show how the accounting equation is satisfied in the following cases 80,000 and goods ₹ 40,000.
 - (ii) Sold half of the goods at a profit of 25% to Ramesh.
 - (iii) Sold remaining goods at a profit of 25% to Ramesh.
 - (iv) Paid salary ₹ 3,000

17. From the following particulars provided by Ramesh Chandra Bhalla, prepare a cash book with suitable column.

2019		Amt (₹)
Aug	1 Cash in hand	1,70,000
	Bank balance with PNB	5,00,000
	Overdraft with SBI	3,50,000
Aug	3 Cash sales	1,40,000
Aug	5 Paid salary to staff by cheque on PNB	2,00,000
Aug	8 Cheque received from Raj deposited with SBI	1,80,000
Aug	10 Cash deposited into PNB	1,00,000
Aug	12 Amount transferred from PNB to SBI by cheque	60,000
Aug	15 Cash withdrew from PNB	1,60,000

18. From the following information, complete the following journal entries.

	Date	Particulars			LF	Amt (Dr)	Amt (Cr)
	(i)				13,250	13,250	
	(;;)	r (Being depreciation charged on machinery ₹ 13,250 was n flow rectified)	ded,	r			
	(11)	t ;				1,750	1,750
	(iii)	f Geing bad debts written-off ₹ 1,750 on debtors were not i rectified)	ecorded	, now	r		
		d				63	63
) (Being discount allowed to debtor ₹ 63, on receiving cash was not recorded, now rectified)					
Or	(iv)					7 500	7,500
			now	r			
	Date	Particulars	LF	Amt	(Dr)	A	mt (Cr)
F	2020			80,0	00	8	30,000
	Mar 4	Dr To Cash A/c (Being ₹ 80,000 deposited in SBI)					
	Mar 9	Dr		1,60,	000		
		To Cash A/c Dr (Being furniture worth ₹ 1,60,000 and tools worth ₹ 32,000 purchased)	32,0	00	1	,92,000	
	Mar 10	To Cash A/c Dr		4,00,	000		
		(Being cash sent to bank ₹4,00,000)				4,	00,000

Date	Particulars		LF	Amt (Dr)	Amt (Cr)
Mar 12	Investment A/c	Dr			
	To Bank A/c				
	(Being investment in shares of Arihant Ltd for ₹				
	40,000 and brokerage paid @ 2%, payment being				
	made by cheque)				
Mar 15		Dr		64,000	64,000
	(Being ₹ 64,000 paid for repairs of proprietor's				
	residential house out of business funds)				
Mar 19	Rohan A/c	DR			
	To Sales A/c				
	(Being goods worth ₹ 96,000 sold to Rohan at 10%				
	above cost and allowed 5% discount)				
	Total			8,77,120	8,77,120

Date	Particulars	LF	Amt (Dr)	Amt (Cr)
Mar 12	Investment A/c			
	Dr			
	To Bank A/c			
	(Being investment in shares of Arihant Ltd for ₹ 40,000 and brokerage paid @ 2%,			
	payment being made by cheque)			
Mar 15			64,000	
	Dr			
Mar 19	(Being ₹ 64,000 paid for repairs of proprietor's residential house out of business funds) Rohan A/c			64,000
	Dr			
	To Sales A/c			
	(Being goods worth ₹ 96,000 sold to Rohan at 10% above cost and allowed 5% discount)			
	Total		8,77,120	8,77,120

Long Answer Type I Questions

(6 Marks)

- (i) An accountant of a firm, maintaining its books under accrual basis, does not want to account salaries amounting to ₹ 30,000 for the month of March 2019, on the grounds, that it was not paid. The firm closes its books on 31st March every year. Is the accountant correct in doing so?
 - (ii) Gayatri, a chartered accountant earned ₹ 12,00,000 during the financial year 2019-2020. Out of which, she received ₹ 10,50,000. She incurred an expense of ₹ 5,10,000 out of which ₹ 1,20,000 are outstanding. She also received her fees relating to previous year ₹ 1,35,000 and also paid ₹ 60,000 expenses of last year. Find out Gayatri's income for 2019-2020 following the cash basis and accrual basis of accounting. (iii) Write any two transactions of a business whose both effects are applied on capital
- 20. On comparing the cash book with pass book of Naman, it is found that on 31st March, 2020, bank balance of ₹ 1,40,960 (debit) showed by the cash book differs from the bank balance of pass book with regard to the following (i) Bank charges ₹ 100 on 31st March, 2020, are not entered in the cash book.
 - (ii) On 21st March, 2020, a debtor paid ₹ 12,000 into the company's bank account in settlement of his account, but no entry was made in the cash book of the company in respect of this.
 - (iii) Cheques totalling ₹ 12,980 were issued by the company and duly recorded in the cash book before 31st March, 2020 but had not been presented at the bank for payment until after that date.
 - (iv) A bill for ₹ 6,900 discounted with the bank is entered in the cash book without recording the discount charge of ₹ 800.
 - (v) ₹ 13,520 is entered in the cash book as paid into bank on 31st March, 2020 but not credited by the bank until the following day.
 - (vi) No entry has been made in the cash book to record the dishonour on 15th March, 2020 of a cheque for ₹ 650 received from Bhanu.

(vii)Bank column of debit side of cash book overcasted by ₹ 20,000.

Prepare bank reconciliation statement as on 31st March, 2020.

Long Answer Type | | Question

21. On 1st April, 2017, X Ltd purchased a machinery for ₹ 12,00,000. On 1st October, 2019 a part of the machinery purchased on 1st April, 2017 for ₹ 80,000 was sold for ₹ 45,000 and a new machinery ai the cost of ₹ 1,58,000 was purchased and installed on the same date. The company has adopted the method of providing 10% p.a. depreciation on the diminishing balance of the machinery.

Show the necessary ledger accounts assuming that provision for depreciation account and machinery disposal account is maintained. The accounting year ends on 31st March.

Or

M/s Lokesh Fabrics purchased a textile machine on 1st April, 2014 for ₹ 1,00,000.

(8 Marks)

On 1st July, 2015 another machine costing ₹ 2,50,000 was purchased. The machine purchased on 1st April, 2014 was sold for ₹ 25,000 on 1st October, 2018. The company charges depreciation @ 15% p.a. on straight line method. Prepare machinery account and machinery disposal account for the year ended 31st March,2019

Section - B

Objective Type Questions Multiple choice questions (Q.22 to Q.26):

	······	···· (2· ·· 2·-	-)-	
There 22.	e are four options f Limitation of com	or each questior puter system is	n, out of these, only on	e is correct. You have to identify the correct option.
(a)	versatility	(b) accuracy	(c) decision-making	(d) storage
23. (a)	Raw facts that for Logical unit	rm a logical mea (b) Data	ning is known as (c) Performance	(d) System
24. (a)	Net profit of a firm charging such con ₹ 1,050 (b) ₹ 1,0	m before chargin mmission, how 1 000 (c) ₹ 2,7	ng manager's commiss nuch manager will ge 100 (d) ₹ 2,000	sion is ₹ 21,000. If manager is entitled to 5% commission after t as commission?
25. (a)	Operating profit e nonoperating exp ₹7,37,500	earned by Geet i penses were ₹ 1,8 (b) ₹ 9,62,500	n 2019-20 was ₹ 8,50,0 87,500. Calculate profit (c) ₹ 9,25,000 (d) ≒	00. Its non-operating incomes were ₹ 75,000 and t earned during the year. ₹ 7,75,000
26.	Journal entry to re	ecord closing sto	ock of ₹ 100 will be.	
(a)	Trading A/c	Dr 100	100 Tc)
	Closing Stoc	k A/c		
(b)	Closing Stock A/c To Trading A	Dr 100 A/c	100	
(c)	Closing Stock A/c To Profit and	Dr 100 d Loss A/c	100	
(d)) Profit and Loss A/c To Closing Sto	c Dr 100 ock A/c	100	
27.	CBIS stands for C	Computer Inform	nation System.	

28. Which is the largest unit of storage?

Short Answer Type I Question

Calculate closing stock from the following details
 Opening stock ₹ 80,000; cash sales ₹ 2,40,000; credit sales ₹ 1,60,000; purchases ₹ 2,80,000.

Rate of gross profit on cost $33\overline{3}\%$ %.

Or

Jofra states his capital on 31st December, 2019as ₹ 1,10,000. He further informs that his capital on 1st January, 2019 was ₹ 1,20,000. He gave a loan of ₹ 40,000 to his brother on private account and withdrew ₹ 7,000. He lives in a flat, the rent (₹ 1,500 per month) and the electricity charges (₹ 500 per month) being paid from business account.

(1 Mark)

(3 Marks)

During the year, he sold his 10% government bonds of ₹ 15,000 at 4% premium and brought that money into business. He asks you to ascertain his business profit or loss.

Short Answer Type II Question

30. Briefly discuss real time user interface, automated document production, quality reports and queries as advantages of computerised accounting system.

Or

"A computer system possesses some characteristics, which in comparison to human beings, turn out to be its capabilities." In the light of this statement, discuss the characteristics/capabilities of a computer system

Long Answer Type I Question

31. Manveer started his business on 1st January, 2019 with a capital of ₹ 4,50,000. On 31st December, 2019 his position was as under

Items	Amt (₹)
Cash	99,000
Bills receivable	75,000
Plant	48,000
Land and building	1,80,000
Furniture	50,000

He owed T 45,000 from his friend Susheel on that date. He withdrew ₹ 8,000 per month for his household purposes. Ascertain his profit or loss for this year ended 31st December, 2019.

Long Answer Type II Question

32. Prepare a trading and profit and loss account for the year ending 31st December, 2018 from the balances extracted from M/s Rahul and Sons. Also prepare a balance sheet at the end of the year.

	Name of Accounts	Amt (₹)	Name of Accounts	Amt (₹)
Stock		50,000	Sales	1,80,000
Wages		3,000	Purchase return	2,000
Salary		8,000	Discount received	500
Purchases		1,75,000	Provision for bad debts	2,500
Sales return		3,000	Capital	3,00,000
Sundry debtors '		82,000	Bills payable	22,000
Discount allowed		1,000	Commission received	4,000
Insurance		3,200*	Rent	6,000
Rent, rates and taxes	3	4,300	Loan	34,800
Fixtures and fittings		20,000		
Trade expenses		1,500		
Bad debts		2,000		
Drawings		32,000		
Repair and renewals		1,600		
Travelling expenses		4,200		
Postage		300		
		1		

(4 Marks)

(6 Marks)

(8 Marks)

Page **90f 10**

Telegram expenses	200	
Legal fees	500	
Bills receivable	50,000	
Building	1,10,000	
	5,51,800	5,51,800

Adjustments

(i) Commission received in advance ₹ 1,000.

(ii) Rent received ₹ 2,000.

(iii) Salary outstanding ₹ 1,000 and insurance prepaid ₹ 800.

(iv) Further bad debts ₹ 1,000 and provision for bad debts @ 5% on debtors and discount on debtors @ 2%.

(v) Closing stock \gtrless 32,000.

(vi) Depreciation on building @ 6% p.a.

Or

Prepare trading and profit and loss account for the year ended 31 st March, 2019 and a balance sheet as on that date from the following trial balance.

Name of Accounts	Amt (₹)	Name of Accounts	Amt (₹)
Stock on 1st April, 2018	32,000	Sales (less returns)	2,20,000
Purchases (less returns)	76,000	Sundry creditors	30,000
Rajeev Khandelwal	3,000	Capital	67,800
Wages	15,400	Mortgage and interest to date	15,600
Carriage inwards	2,600	Rent outstanding	1,000
Carriage outwards	1,500		
Salaries	40,000		
Advertisements	9,000		
Trade expenses	4,800		
Rent	12,000		
Establishment	5,400		
Stable expenses	2,100		
Mortgage interest	600		
Sundry debtors	40.000		
Cash in hand	2,500		
Machinery	87,500		
	3,34,400		3,34,400

Adjustments

(i) Closing stock was ₹ 46,000.

(ii) Provision for doubtful debts be created on sundry debtors @ 5% and a provision for discount on sundry debtors at 2%.

(iii) Salary of₹ 3,000 paid to Rajeev Khandelwal an employee of the firm, stands debited to his personal account and it is to be corrected.

(iv) A stationery bill for ₹ 200 remains unpaid and unrecorded.

(v) Write-off 1/3rd of advertisement expenses.

(vi) Sundry creditors include₹ 10,000 loan taken from Mr Kailash on 1st September, 2018 bearing interest @ 12% p.a.

DELHI PUBLIC SCHOOL

BUSINESS STUDIES XI

HOLIDAY ASSIGNMENT

1. Explain with examples the various types of industries with flow chart.

2. Distinguish between Joint Hindu Family business and partnership.

3.Explain any four differences between departmental undertakings, public corporation and government company.

4. Explain the principle of Insurable Interests. When must Insurable Interest exist in Life Insurance. Fire Insurance and Marine Insurance?

5. Explain briefly the social responsibilities of business towards different interest groups.

6. Business is essentially a social institution and not merely a profit-making activity. Explain.

7. Give a comparative study between e-business and traditional business

8. Describe the meaning and scope of e-business

9. Why are e-business is referred to as the emerging modes of business? Discuss the factors responsible for the growing importance of e-business.

10. Explain with suitable examples the different principles of insurance.

11. Explain the scope of e-business in detail.

12. Explain retained earnings and explain its characteristics.

13. Can the public sector companies compete with the private sector in terms of profits and efficiency? Give reasons for your answer.

14. What is a prospectus of a company? Discuss its nature and importance.

15. Give any four reasons, for a businessman to undertake social responsibilities.

DELHI PUBLIC SCHOOL

Durga Puja Vacation Assignment

Class XI Subject- Economics

Section A: Microeconomics

- 1. Point of inflexion refers to that point from where:
 - (a) Slope of TP changes
 - (b) TP stops increasing at an increasing rate
 - (c) Slope of AP changes
 - (d) Both (a) and (b)

2. State whether True or False with a reason. *MP=AP when AP is maximum*.

3. Explain the relationship between the marginal product and total product of an input.

4. Do you agree that TPP must decrease in a situation of diminishing returns? Justify.

5. When average cost (AC) is falling:

- (a) MC>AC
- (b) MC<AC
- (c) MC=AC
- (d) None of these

6. State whether True or False with a reason.

The distance between AC and AVC curves tends to increase at higher levels of output.

7. Complete the following cost schedule:

Quantity	0	1	2	3	4
тс	200	?	?	?	490
TVC	0	?	180	?	?
AVC	?	100	?	80	?

8. Calculate AVC at each unit of output:

Output	1	2	3	4	5	6
--------	---	---	---	---	---	---

MC 24 20 16 12 18 30	МС	24	20	16	12	18	30
----------------------	----	----	----	----	----	----	----

Section B: Statistics

9. Estimate the value of mode from the following data:

C.I.	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90
f	0	2	3	7	13	11	9	2	1

10. Draw a 'less than' and 'more than' ogive from the following data and hence find out the value of Median:

Clas s	20-25	25-3 0	30-35	35-40	40-45	45-50	50-55	55-60
f	6	9	13	23	19	15	9	6

11. Calculate median, first quartile and third quartile from the following data:

Clas s	30-35	35-40	40-45	45-50	50-55	55-60	60-65
f	14	16	18	23	18	8	3

12. Which of the following cannot be calculated by graphic method?

- (a) Mean
- (b) Median
- (c) Mode
- (d) Quartile

13. Median of a series: 3, 5, 7, 9, 12 is _____.

- 14. Given, Mode= 16, Median= 15.73. Calculate Mean.
- 15. Find the mode from the following data: 5, 8, 4, 5, 5, 8, 4, 7, 8, 5

<u>History</u>

Changing cultural Traditions

- 1. What is the contribution of Arabs in science
- 2. What was the specialty of art of Renaissance period
- 3. What do you understand kabout Humanism? Write the names of humanist thinkers of the Europe
- 4. Explain the features of Renaissance movement
- 5. What is Reformation
- 6. Discuss whether there was a European Renaissance in the fourteenth century Europe
- **7.** What were the causes of conflict within Christianity? Why the christians were split upto two sects
- 8. Describe the contributions of humanist writers to literature
- **9.** Compare and contrast the life of feudalistic Europe to to modern Europe.
- **10.** Explain the position of women in Europe during the Renaissance period
- **11.** List the artists of the renaissance with thename of the famous art done by them (include paintings, sculptors, artitectural wonders)
- **12.** Make a Table of any 10 inventors with their inventions and the use of the machine from the chapter Industrial Revolution

Class -XI

Subject - Political Science

Equality

- 1. Define freedom in terms of both its aspects.
- 2. Explain the negative and positive dimensions of freedom.
- 3. What are the sources of constraints on freedom?
- 4. Why do we need constraints?
- 5. Write a short note on liberalism.
- 6. Explain the 'Harm Principle' as given by JS Mill.
- 7. Explain the negative and positive liberty.
- 8. What arguments are given in support of freedom?

Equality

- 9. Define the term 'Equality' as a political idea.
- 10. What was the slogan of revolutionaries during French Revolution?

11. What do you mean by equality of opportunities?

12. What is the difference in natural and social inequalities?

13. Give any one example of unfair inequality.

14. What are the three dimensions of Equality?

15. What is the meaning of entrenched inequalities? Why are they dangerous for the society?

16. What do you understand by the following:

a) Feminism

b) Marxism

c) Liberalism

17. Explain the three ways of promoting equality



DELHI PUBLIC SCHOOL, RANCHI

Assignment-II (2019-20)

Class:- XI

Subject:- Fine Art- Graphics / Painting

Section : First	(1x6)=6
General Instructions: Answer to be written for each qu	estion in a word or sentence.

- ► Name any one sculpture of Gupta period.
- ► Write about the location of Lion Capital.
- ▶ What is the symbolic representation of 'Ashok Chakra'?

▶ Name the famous sculpture of Didargani, Patna which was made in the Mauryan period.

- ► Lion Capital was adopted as of Indian Government on 26 Jan. 1950.
- ► Boddhisatva Head from Taxila is in style of 2nd century AD.
- ► Now Seated Buddha from Katra Tila is a collection of _____ Museum.
- ► The sculptural remains of Sunga period can be seen in .
- ► The 24th Jain Tirthankara is known as
- Gandhara & Mathura Art developed in which period.
- ▶ Which sculpture has been adopted as the National Emblem of Independent India?
- ► What is the name of a famous Jain sculpture?
- ► The subject matter of Ajanta Cave Paintings is based on the story of ______.
- ▶ is one of the important painting of Ajanta.
- ► Ajanta is located at
- ► What is auspicious mark?
- ► What is Fresco?
- ► What is Chaitya and Vihar Caves?
- ► How many caves are in Ajanta?

Section : Second

(2x3)=6

General Instructions: Answer to be written for each is about 30 words.

• Give examples of the Gandhara style of Art and Mathura style of Art and its period.

▶ Write about its location, period, caves, types of caves, technique, medium, colour, different subjects & expressions.

- ► Write about Gandhara style of Art.
- ▶ What is the visual difference between Buddha and Mahavir sculptures?

▶ What is the difference between 'Seated Buddha of Mathura' and 'Seated Buddha of Sarnath'.

General Instructions: Answer to be written for each is about 100 words.

► Describe the characteristic features of the 'Chauri bearer' a famous sculpture of Maurya dynasty.

► What is the difference between the sculpture of Seated Buddha from Sarnath and Seated Jain Tirthankar of Gupta Period?

- Explain about the sculpture 'Buddha Head of Taxila' or 'Jain Tirthankar'.
- ► What is the difference between Gandhara style and Mathura style of Art?
- ► What is the difference between Mathura sculpture and Sarnath sculpture?
- ► What are the characteristics of Ajanta Paintings?

Section : Forth (6x1)=6 General Instructions: Answer to be written for each is about 200 words.

▶ Write a note on the compositional arrangement of 'Lion Capital' of Sarnath.

- ► From where Kushan came? What was there contribution in Indian Art?
- ► Why Ajanta is important? Where it is located? What are Chaitya and Vihar Caves?
- ► Write a note on anyone painting of Ajanta.
- ► What are the artistic aspects of the painting 'Padmapani' of Ajanta?

Section : Fifth (6x1)=6 General Instructions: Essay to be written in not more than 350 words.

► Write about the development of Indian Art during Mauryan period.

► In which period Gandhara style and Mathura style of Art developed? What are their characteristics? Give an example for both styles. Write about any one sculpture.

► What are the characteristics of Ajanta Art? Write about location and caves of Ajanta. Write a note on anyone painting of Ajanta.

▶ Write about origin and development of Buddhist Sculptures.

DELHI PUBLIC SCHOOL SAIL TOWNSHIP, DHURWA <u>RANCHI</u>

D.P. HOLIDAY HOME WORK

CLASS-11SESSION-2021-22

SUBJECT- PHYSICAL EDUCATION

- 1. Briefly explain the meaning and definition of Physical fitness and Lifestyle?
- 2. Explain the importance of Physical fitness and Wellness?
- 3. Briefly explain the importance of Healthy/Positive lifestyle?
- 4. define Strength and explain its types in detail?
- 5. Write a short note on Speed?
- 6. Write a short note on Endurance and its types?
- 7. Define Flexibility and explain its types?
- 8. Write a short note on Coordinative Abilities?
- 9. Explain Cardiovascular Endurance and Body composition?
- 10. Briefly explain Components of Wellness?
- 11. Define Physical Education and explain its Aims and Objectives?
- 12. Write a short note on IOA and explain its objectives?
- 13. Define adventure Sports and explain its objectives?
- 14. Briefly explain the importance of Warming-up in detail?
- 15. Explain Performance enhancing substances in doping in detail?