Roll. No.

Time: 3:00 Hrs.

M. M. 100

Half Yearly Examination 2019 – 2020

Q-01 To 20 { each one mark} 21 To 22 { each 3 Marks} **O**-**Q-**23 To 27 { each 4 Marks} 28 To 30 { each 6 Marks} **O**-0-31 To 32 { each 8 Marks } Q.1 Accounting does not show the realizable value of business. It is a/an (a) limitation of Accounting (b) advantage of Accounting (c) Both A and B (d) None of these A liability arises because of Q.2 (a) cash transactions (b) credit transactions (c) cash as well as credit transactions (d) None of these Q.3 According to which of the following accounting concepts, even the proprietor of a business is treated as creditor to the extent of his capital (a) Money Measurement Concept (b) Dual Aspect Concept (c) Cost Concept (d) Business Entity Concept On intra-state [I.e. within the state] purchase of goods, which of the following GST is levied Q.4 (a) CGST (b) SGST (c) CGST and SGST (d) SGST and IGST X commenced business on 1st April 2013 with a capital of 6,00,000. On 31st March 2014 his assets were Q.5 worth 8,00,000 and liabilities 50,000. Find out his closing capital (b) 2,00,000 (a) 7,50,000 (c) 5.50.000(d) None of these Outstanding salary is Q.6 (a) Real Account (b) Personal Account (c) Nominal Account (d) None of these Q.7 Accounting voucher is prepared from (a) source voucher (b) Journal entry, (c) Both A and B (d) None of these Q.8 On inter-state sale of goods, which of the following account is credited (a) Output CGST (b) Output IGST (c) Input IGST (d) Output SGST Q.9 Ledger is called a book of (a) primary entry (b) secondary entry (c) final entry (d) None of these Mohit paid 9800 in settlement of his account of 10,000. Discount Allowed will be recorded in Q.10 (a) Cash Book (b) Journal Book (c) Both Cash Book and Journal (d) None of these Q.11 The Sales Book (a) Is a part of the Journal (b) Is a part of the Ledger (c) Is a part of the Balance Sheet (d) None of these If balance in the bank statement shows 3000 [Dr] and there are deposits of 800 not yet credited and Q.12 unpresented cheques totaling 500, the balance in the \cash Book should be (a) 3300 (b) 2700 Cr (c) 4300 Cr (d) 1700 Dr. Q.13 The preparation of Trial Balance helps in (a) Judging the Financial Position (b) Locating Errors of All Types (d) None of these (c) Preparation of Final Accounts Q.14 Journal records the transactions of the firm in a (a) Analytical manner (b) Chronological Manner (c) Periodical manner (d) Summarized manner Trade Discount is deducted from the gross sales. Sales is recorded in the books of account at 0.15 (a) Gross Sales and Trade Discount separately (b) Net Sales Invoice (c) None of the above (d) Any of A and B When a firm maintains two-column Cash Book, it does not maintain 0.16 (a) Purchases Book (b) Journal Proper (d) Bank and Cash Account in the Ledger. (c) Sales Book

Q.17	Error not shown by Trial Balance are (a) Errors of Principle (b) Compensating Errors (c) Errors of Complete Omission (d) All of the above
Q.18	Which of the following will not be recorded in the books of account (a) Sales of goods (b) Payment of salary (c) Quality of staff (d) Purchase of Goods
Q.19	(a) Sales of goods (b) Fayment of salary (c) Quanty of start (d) Fulchase of Goods IFRS are (a) Rule based accounting standards (b) Principle based accounting standards
Q.20	(c) Partially rule based and partially principle based accounting standards (d) None of the above Double Accounting system owes its origin to
-	(a) Lucas Pacioli (b) Adam Smith (c) Kohler (d) Karl Marx
Q.21	Distinguish between Cash Basis and Accrual Basis of Accounting { Any Three} OR
Q.22	Discuss Cash and Accrual Basis of Accounting. Explain the following terms [A]. Prepaid Expenses [B] Trade Receivable OR [C] Drawings
	Explain the following terms [A] Trade payable [B] Capital [C] Accrued Income
Q.23	Explain : [1]Consistency Assumption [2]Business Entity Principle [3] Materiality Principle [4] Matching Principle OR
	[1] Going Concern Assumption [2] Accounting Period Principle
Q.24	[3] Prudence Principle[4] Duality PrincipalExplain Attributes of Accounting ?
	OR Explain Qualitative Characteristics of Accounting Information ?
Q.25	 [A] Prepare Opening Entry from following balances Creditor 15,000 ; Machine 40,000 ; Debtor 2,000; Capital 60,000; Bills Receivable 25,000;
	Cash 18,000; Bills Payable 25,000; Loan from Bank 12,000
	 [B] Find out cost of goods sold : Opening Stock 40,000; Purchases 1,00,000; Direct expenses 20,000 Closing Stock 30,000. Purchases Return 10,000
Q.26	Prepare an Accounting Equation from the following 1. Started business with cash 1,00,000 and Stock 20,000
	2. Purchased goods for cash 20,000 and on credit 30,000
	 Sold goods for cash costing 10,000 and on credit costing 15,000 both at a profit of 20% Salary paid 5,000 and Outstanding Rent 4,000
	OR
	Prepare an Accounting Equation from the following 1. Started business with cash 50,000 and Furniture 10,000
	2. Purchased goods from Mohan Rs 30,000 and 10,000 paid immediately
	 Sold goods for cash costing 12,000 and on credit costing 10,000 both at a profit of 20% Commission received 5,000 and Interest received in advance 2,000
Q.27	Prepare Trial Balance from the following information of Mohan Lala & Sons as on 31 st March 2019. Capital of the firm is the balancing figure:
	Stock 16,800;Sales 70,200;Cash 8,000;Printing and Stationery 4,000; BankOverdraft 9,000;Return Inward 4,000;Purchases 50,000;Drawing 6,500;
	Return Outward 1,000; Salary 9,000; Furniture 20,000; Advertisement 5,000;
	Output CGST 3,500;Output SGST 3,500;Bad Debts 3,000;Discount Allowed 2,000;DiscountReceived 1,500;Debtors 24,000;B/P 8,000;Creditors 22,000;
	B/R 9,000; Provision for Doubtful Debt 2,000; Unearned Rent 1,600; Input CGST & SGST 6,000;

Bank Overdraft 40,000; Machinery 1,60,000; Accrued Commission 4000; Capital 2,00,000; Bills receivable 40,000; Cash 40,000; Outstanding Rent 6,000; Loan from bank 30,000; Due to Mukesh 10,000; Due from Suresh 14,000; Interest earned but not received 3,000 Input IGST 5,000 Output IGST 3,000 Goodwill 5,000; Rent Paid 3,000; Interest received 6,000 Creditors 10,000 Bad debts 1,000 Investment 10,000 Loan from Ram 4,000 Discount 15,00 Purchases 40,000 Sales 50,000

Q.28 From the following particulars, prepare s Sales Book of M/s Amit , Bombay dealers in stationery GST 6% each & IGST 12%.

July 1	Sold to M/s Stationery Mart
	50 Dozen pencil @ 10 per pencil
	100 Dozen Inkpot @ 120 per Dozen
	Less 10% Trade Discount
July 5	Sold to M/s Pustak Mahal Jaipur
	200 Drawing Boards @ 70 per piece
	10 Gruss Pen @ Rs 100 per Dozen
July 10	Sold old newspaper for Cash 1000
July 20	Sold to M/s ABC and sons
	100 Copies Accountancy @ 200 per copy
	200 Copies Economics @ 150 per copy
	50% amount received by cheque

July 25 Sold to M/s Patel and company 4 office Tables @ 200 per table 5 chairs @ 250 per chair

OR

Prepare Purchase Book & from following transactions of Dayal Books.

- April 2011 1. Goods Purchases from Ragav Books house 50 English Books @ 80 each (T.D. 10%), GST 6% each 80 Accountancy Books @ 100 each (T.D.20%)
 - Goods Purchases from Manish Books Department
 30 Books of Physics @ 120 each (T.D. 5%); 30% amount paid.
 50 Books of Economics @ 150 each (T.D. 12%)
 - 18. Goods returned to Rahav Book House 10% English Books & 5% Accountancy Books
 - Durchasses Machinery from Amit 40,000
- 20. Purchases Machinery from Amit 40,000 On 31st December 2017 the Cash Book of Gopi showed debit balance of 2400. On comparing the Cash Book
- with the Pass Book, the following information was noted
- 1. Cheques were issued for 10,000; but of them cheques for 2300 have not been presented so far
- 2. Cheques for 6600 were deposited in bank but of these cheques for 1200 were omitted to be recorded in the Cash Book
- 3. Bank charges were 150

Q.29

- 4. A cheque for 450 was paid into bank but bank credited the amount with 540 by mistake
- 5. Bank retired B/P of 3,000 under rebate of 200 but full amount of B/P was recorded in Cash Book
- 6. Bank collected dividend on securities 600 as per standing instructions.

OR

Prepare a Bank Reconciliation Statement from following information on 31st March :

- [1] Pass book shows Debit balance 27,000
- [2] Cheque deposited in to the bank but not collected by bank 8,000
- [3] The bank has allowed 200 on account of interest and charged 50 towards bank charge
- [4] Cehque of 8900 were issued of which 2900 were presented for payment on 15 April
- [5] Pass book deposit column total under cast by 3000
- [6] Cheque issued 2000 but entered debit side of cash book

[6]

Q.30 Rectify the following errors

[1]A furniture purchased for Rs.8,100 was entered in the Furniture Account as Rs. 810

[2]A sale of Rs. 4,000 has been passed through the Purchase Daybook.

[3]The total of the Returns outward book, Rs. 420 has not been posted in the ledger.

[4]A purchase of Rs. 350 from Y has been entered in the sales book. However Y's account has correctly entered.

[5]A sale of Rs. 390 to Z has been credited to his account as Rs. 290.

[6]540 received form Ram was posted to the debit of his account.

OR

[1]An item of Rs. 3,500 relating to prepaid rent account was omitted to be brought forward.

[2]Rs. 25,000 paid to Harish against our acceptance were debited to Harish's Account.

[3] Rs. 50,000 received from A was posted to the debit of his account.

[4] Rs. 20,000 being purchases returns were posted to the debit of Purchases Account

[5] Personal Car Expenses amounting to Rs.250 were debited to Trade Expenses.

[6]Old furniture sold forRs.5,400 had been entered as Rs.4,500 in sales account.

Q.31 Enter the following transactions in Cash Book with cash and bank columns

- 1- Cash in hand 4,000 and Bank overdraft 7,300
- 2- Received cheque from Hari5,000Discount allowed200
- 3- Cheque of Hari deposited in bank
- 4- Paid ram by cheque4,300Discount received200
- 5- Sold goods to Mohan of list price Rs 5,000 less 10% T.D. and 2% C.D., CGST 6% & SGST 6%
- 6- Hari's cheque dishonoured
- 7- Received cheque from Manoj4000
- 8- Cheque received from Manoj is endorsed to creditor, Gopal
- 9- Bank charge
 10- Sold goods to Kishor against cheque and it was banked the same day
 10,000; CGST 6% & SGST6%
- 11- Paid rent including CGST 6% & SGST 6%2,400
- 12-Cash deposited to bank

OR

Record the following transactions in a Double Column Cash Book with Cash and Bank Columns and balance the book on 31st March 2016.

4000

[8]

- March 1- Cash in hand 60,000
 - Cast at Bank 10,000
- March 2- Pays in to Bank 20,000
- March 3- Received cheque from X and Company 2000
- March 5- Sold goods to Ritu of list price Rs 7,000 less 10% T.D. and 2% C.D.CGST & SGST 6%
- March 10 Withdraw cash from bank for office use 1000
- March 15- Received cheque from Rashmi 1000 and discount allowed 250
- March 20- Rashmi's cheque endorsed to Bhumika in full settlement of her account Rs990
- March 29 Sold goods against cheque and it was banked the same day 5,000 CGST & SGST
- March 30 Deposited in to bank, balance of cash in excess of 1000

- Q.32 Give Journal entries for the following: GST 6% cash
 - [1] Business started with Cash 1,00,000; Furniture 50,000 and Stock 50,000
 - [2] Goods purchased from Ankit 40,000 on 5% Trade Discount
 - [3] Goods sold to Sumit 60,000 on 5% Trade discount and 5% Cash discount
 - [4] Goods sold to Mohit 20,000 on 5% Cash Discount and 50% amount received by cheque
 - [5] Goods destroyed by fire Rs.800 and claim accepted by the company 800
 - [6] Paid Rs.4,000 in cash as wages on installation of a Machinery.
 - [7] Issued a cheque in favour of M/s. Vinod Kumar & Sons on account of purchase of goods worth Rs.10,000.
 - [8] Personal car sold 50,000 and 30,000 introduced in business

OR

- [1] Goods sold costing Rs.6,000 to M/s. Mohan & Sons at an invoice price 10% above cost less 5%
 Trade Discount.
- [2] Goods worth Rs.400 were given as charity out of business.
- [3] Received cash Rs.500 of a bad debt written off last year.
- [4] Mohan is declared insolvent and received from his official receiver a dividend of 60 paise in the rupee on a debts of 2000
- [5] Received Rs.975 from Mohan in full settlement of his account of Rs.1,000.
- [6] Received a first and final dividend of 60 paise in a rupee from the official receiver of Mr. Vinod, who owed us Rs.1000.
- [7] Goods sold to Manish 40,000 on 5% Cash Discount and 40% amount received by cheque
- [8] Machine sold to Hari Rs 20,000 on 5% Cash Discount and cheque received and cheque deposited into bank on same day.

ORAL →

M. M. 70

Roll. No.

Time: 3:00 Hrs.

General instructions:

Half Yearly Examination 2019 – 2020

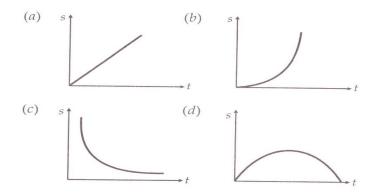
All guestions are compulsory. There are 37 guestions in all. Section – A Question 1 to 20 multiple choice type each contain one marks only, Section – B Question 21 to 27 contain 2 marks. Section – C Question 28 to 34 contain 3 marks. Section – D Question 35 to 37 contain 5 marks. There is no overall choice. However an internal choice has been provided in three guestions of two marks, three questions of three marks and all three questions of five marks weightage. You have to attempt only one of the choices in such questions. SECTION – A Q.1 Identify the pair whose dimensions are equal. (a) Torque and Work (b) Stress and energy (c) Force and Stress (d) Force and Work Q.2 If error in radius is 3% what is error in volume of sphere. (b) 27% (d) 6% (a) 3% (c) 9% A body starts from rest at time t=0, the acceleration time graph is shown in Q.3 Acceleration 10 fig. The maximum velocity attain by the body will be. (m/s^2) (a) 110 m/s (b) 55 m/s (c) 650 m/s (d) 550 m/s What is the relation among displacement, time and acceleration in case of a Q.4 11 body having uniform acceleration f? Time (sec.) (a) S = $ut + \frac{1}{2}ft^2$ (c) $s = v^2 - 2fs$ (b) s = (u + f)t(d) none of these In 1.0 sec, a particle goes from point A to point B, moving in a semicircle Q.5 of radius 1.0 m as shown in the magnitude of the average velocity is. (a) 3.14 m/s (b) 2.0 m/s (c) 1.0 m/s (d) Zero. Q.6 A boy can throw a stone up to a maximum height of 10 m. The maximum horizontal distance that the boy can throw the same stone up to will be (a) 20√2 m (c) $10\sqrt{2}$ m (b) 10m (d) 20 m A rocket with a lift – off mass 3.5×10^4 kg is blasted upwards with an initial Q.7 acceleration 10 m/s^2 . Then the initial thrust of the blast is. (a) 3.5 x 10⁵ N (b) 7 x 10⁵ N (c) 14 x 10⁵ N (d) 1.75 x 10⁵ N A body is rest on the surface of earth. Which of the following statement is correct? Q.8 (a) No force is acting on the body (b) Only weight of the body act on it (c) Net downward force is equal to the net upward force (d) None of the above statement is correct Q.9 Two particle A and B initially at rest, move towards each other under mutual force of attraction. At the instant when the speed of A is v and the speed of B is 2v, the speed of centre of mass of the system is-(a) 3v (b) v (c) 1.5v (d) Zero Q.10 Angular momentum of the particle rotating with a centre force is constant due to-(a) Constant force (b) Constant linear momentum (c) Constant torque (d) Zero torque Q.11 The dimension of impulse are equal to that of-

(a) Pressure (b) Linear momentum (c) Force (d) Angular momentum

- Q.12 SONAR emits which of the following waves -
- (a) Radio
 (b) Light
 (c) Ultra Sound
 (d) None of these
 Q.13 A stone is thrown vertically up from the ground. It reaches a maximum height of 50m in 10Sec.
 After what time it will reach the ground from maximum height position –

(a) 1.2 Sec (b) 10 Sec (c) 5 Sec (d) 25 Sec

Q.14 Which of the following graph represents uniformly accelerated motion?



- Q.15 Which of the following is constant in a projectile motion -(a) Horizontal component of velocity (b) Vertical component of velocity (c) Velocity of projectile projection (d) All of these Q.16 An object is moving in a circle of radius 100m with constant speed of 3.14 m/s. What is its average speed for one complete revolution? (d) $\sqrt{2} \times 3.14$ m/s (a) Zero (b) 31.4 m/s (c) 3.14 m/s Q.17 The velocity of train increases uniformly from 20 km/h to 60 km/h in 4 hour. The distance travelled by the train during this period is -(a) 160 Km (b) 180 Km (c) 100 Km (d) 120 Km Q.18 Velocity of a body on reaching the point, from which it was projected upwards, is -(b) v = 2u(c) v = 0.5u(a) v = 0(d) v = uQ.19 Out of the following four dimensional quantities which one quantity to be called a dimensional constant? (b) Surface tension of water (a) Acceleration due to gravity (c) Weight of a standard kg. mass (d) the speed of light in vacuum Q.20 The respective number of significant figures for the number 23.023, 0.0003 and 2.1 x 10^{-3} are -(a) 4,4,2 (b) 5,1,2 (c) 5,1,5 (d) 5,5,2 SECTION - B
- Q.21 The period of oscillation of a simple pendulum is $T = 2\pi \sqrt{L/g}$. Measured value of L is 20.0 Cm known to 1mm accuracy and time for 100 oscillations of the pendulum is found to be 90 Sec using a wrist watch of 1 Sec resolution. What is the accuracy in the determination of g?
- Q.22 If in case of a motion, displacement is directly proportional to the square of the time elapsed, what is the nature of acceleration?

Which of the two – velocity or acceleration, gives the direction of motion of the body. Justify your answer by an example?

- Q.23 The resultant vector of \xrightarrow{P}_{p} and \xrightarrow{Q}_{q} is \xrightarrow{R}_{R} . On reversing the direction of \xrightarrow{Q}_{q} the resultant vector becomes \xrightarrow{P}_{S} . Show that $R^2 + S^2 = 2(P^2 + Q^2)$
- Q.24 A cricket player lowers his hands to catch the ball safely. Explain why?
- Q.25 Prove tha $\mathcal{T} = \frac{dL}{dt}$, where $\mathcal{T} =$ torque and L = Angular momentum

OR

Find out the relation between torque and moment of inertia

Q.26 In a harbour, wind is blowing at the speed of 72 Km/h and the flag on the mast of a boat anchored in the harbour flutters along the N – E direction. If the boat starts moving at a speed of 51 Km/h to the north, what is the direction of the flag on the mast of the boat?

OR

A fighter plane flying horizontally at an altitude of 1.5 Km with a speed 720 Km/h passes directly overhead on antiaircraft gun. At what angle from the vertical should the gun be fired for the shell muzzle speed 600 m/s to hit the plane? At what maximum altitude should the pilot fly the plane to avoid being hit? Take $g = 10 \text{ m/s}^2$.

Q.27 What is the angle made by vector $\rightarrow_{A} = 2\hat{i} + 2\hat{j}$ with x – axis?

SECTION - C

- Q.28 Standing is not allowed in a double Decker bus. Why?
- Q.29 A solid cylinder of mass 20 Kg rotates about its axis with angular speed 100 rad/sec. The radius of the cylinder is 0.25m. What is the kinetic energy associated with the rotation of the cylinder?

OR

To maintain a rotor at a uniform angular speed of 200 rad/sec, an engine needs to transmit a torque 180 Nm. What is the power required by the engine? Assume that the engine is 100% efficient.

- Q.30 Find the dimensions of a x b in the relation P = $\frac{b-x^2}{at}$, Where p = power, X = distance and t = time.
- Q.31 The escape velocity v of a body depends upon the acceleration due to gravity of planet and the radius of the planet R. Establish dimensionally the relationship between v, g and R.

OR

If the value of universal gravitational constant is 6.67 x 10⁻⁸ dyne cm²g⁻². Then convert it into SI System?

- Q.32 Why is it easier to pull a lawn roller than to push it, explain?
- Q.33 Friction is a necessary evil. Comment on this statement?

OR

Ten one rupee coins are put on top of each other on a table. Each coin has a mass M Kg. Give the magnitude and direction of

- (i) the force on the 7th coin (counted from bottom) due to all the coins on its top.
- (ii) The force on the 7th coin by the eighth coin.
- (iii) The reaction of the $\mathbf{6}^{th}$ coin on the $\mathbf{7}^{th}$ coin.
- Q.34 A ball dropped from a height 90 m on a floor. At each collision with the floor, the ball loses one tenth of its speed. Plot the speed time graph of its motion between t =0 to t = 12 sec.

SECTION - D

Q.35 Deduce the following equations for uniformly accelerated motion by using integration technique. (i) v = u + at (ii) $S = ut + \frac{1}{2} at^2$ (iii) $v^2 = u^2 + 2as$. 1+2+2=5 (a) When does a cyclist appears to be stationary with respect to another cyclist?

(b) The distance x of a particle moving in one dimension, under the action of a constant force is related to time t by the equation $t = \sqrt{x} + 3$, where x is in meter and t in second. Find the

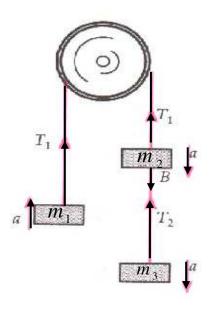
- displacement of the particle when its velocity is zero?
- Q.36 Derive an expression for the moment of Inertia of a uniform solid sphere about its axis of rotation. **OR**

Derive an expression for the centre of mass of two particle system?

Q.37 What do you mean by banking of a curved road? Determine the angle of banking so as to minimize the wear and tear of the tyre of a car negotiating a banked curve?

OR

Three bodies A, B and C each of mass m_1 , m_2 and m_3 are hanging on a string over a fixed pulley as shown in figure. Find Tension between m_2 and m_3 .



Roll. No	соде No. 11/English/NLCS/8	5
H	lalf Yearly Examination 2019 – 2020	
Time: 3:00 Hrs.	M. M. 10	0
General Instruction	ons:	

Section – A	Reading	20
Section – B	Writing	30
Section – C	Literature	30

SECTION – A (READING)

Q.1 Read the passage given below and answers the questions that follow:

1. Too many parents these days can't say no. As a result, they find themselves raising 'children' who respond greedily to the advertisements aimed right at them. Even getting what they want doesn't satisfy some kids; they only want more. Now a growing number of psychologists, educators and parents think it's time to stop the madness and start the madness and teaching kids about what's really important: Values like hard work, contentment, honesty and compassion. The struggle to set limits has never been tougher-and the stakes have never been higher. One recent study of adults who were overindulged as children, paints a discouraging picture of their future: when given too much too soon, they grow up to be adults who have difficulty coping with life's disappointments. They also have distorted sense of entitlement that gets in the way of success in the work place and in relationship.

(12 Marks)

- 2. Psychologists say that parents, who overindulge their kids, set them up to be more vulnerable to future anxiety and depression. Today's parents themselves raised on values of thrift and self-sacrifice, grew up in a culture where no was a household word. Today's kids want much more partly because there is so much more to want. The oldest members of this generation were born in the last 1980s, just as PCs and video games were making their assault on the family room. They think of MP3 players and flat screen TV as essential utilities, and they have developed strategies to get them. One survey of teenagers found that when they crave for something new, most expect to ask nine times before their parents give in. By every measure, parents are shelling out record amounts. In the heat of this buying blitz, even parents who desperately need to say no find themselves reaching for their credit cards.
- 3. Today's parents aren't equipped to deal with the problem. Many of them, raised in the 1960s and '70s, swore they'd act differently from their parents and have closer relationships with their own children. Many even wear the same designer clothes as their kids and listen to the same music. And they work more hours; at the end of a long week, it's tempting to buy peace with 'yes' and not mar precious family time with conflict. Anxiety about future is another factor. How do well intentioned parents say no to all the sports gear and arts and language lessons they believe will help their kids thrive in an increasingly competitive world? Experts agree: too much love won't spoil a child. Too few limits will.
- 4. What parents need to find, is a balance between the advantages of an affluent society and the critical life lessons that come from waiting, saving and working hard to achieve goals. That search for balance has to start early. Children need limits on their behavior because they feel better and more secure when they live within a secured structure. Older learn self-control by watching how others, especially parents act. Learning how to overcome challenges is essential to becoming a successful adult Few parents ask kids to do chores. They think their kids are already overburdened by social and academic pressures. Every individual can be service to others, and life has meaning beyond one's own immediate happiness. That means parents eager to teach values have to take a long, hard look at their own.

1.1 On the basis of your understanding of the above passage answer each of the questions given below with the help of options that follow: 1×4=4

- (a). According to the writer, children respond greedily to advertisements because
 - (i) they have got used to getting more than they want
 - (ii) they are used to the limits set by their parents
 - (iii) they are not used to their parents disagreeing with them
 - (iv) they do not have values like hard work, honesty and compassion

(b) In the writer's opinion, parents keep reaching for their credit cards as

- (i) they want to buy the latest gadget in the market
- (ii) they feel happy buying presents for their children
- (iii) they cannot see their children worried and depressed
- (iv) they are unable to say 'no' to their children's demands
- (c) Today parents are keen to have a close relationship with their wards because
- (i) they want to wear the same kind of clothes as worn by their children
 - (ii) they want to keep them in good humour so that they take care of them in their old age
 - (iii) they are unable to set boundaries and rules for their children
 - (iv) they want to act differently from the way their parents had treated them
- (d) The writer feels that in order to teach values to their children, parents should
 - (i) find a balance in their own lives
 - (ii) feel more secure in their relationship with their children
 - (iii) think more about their own needs and less about what their children want
 - (iv) introspect about their own value systems

1.2 Answer the following questions briefly in your own words:

- (e) Why do the children mentioned in the passage find it difficult to succeed in their lives and workplaces? (f) Why do these children want more than they really need in life?
- (g) Mention one important difference between the lives of the parents and their children'
- (h) What are the critical lessons one has to learn in life?
- (i) Why is it important for parents to encourage their children to do chores at home?
- (j) How can a parent actually teach values to their children?
- (k) Find words from the passage which mean the same as each of the following: (1x2 = 2)
 - (i) having the right to lay claim to something (para 1)
 - (ii) twisted out of shape deformed (para 1)

Q.2 Read the passage given below:

- 1. A dominance and hierarchy exists for everything, including space. A dominant animal controls the space around it. Even in grooming, hierarchy is reflected. Grooming is simply a cleaning mechanisms, and it is highly effective, as one can see by comparing lions and baboons. Although lions are clean animals, the backs of their necks, where they cannot reach to clean, are thick with ticks, whereas the baboon's hair is totally from of them as the inferior baboons clean the dominant one's neck.
- 2. This 'dominant hierarchy is form of animal social structure in which a linear or nearly linear ranking exists, with each animal dominant over those below it and submissive to those above it. In most of the cases this hierarchy is relatively stable from day to day. Direct conflict is rare as the weaker animal itself steps aside when sees the dominant or much stronger around in its path. These submissive displays and their calming effect on the dominant animal evolves because they avoid or prevent fighting as it may result in unnecessary injury to a social group dependent on one another for their welfare.
- 3. Japanese monkeys were intensely studied during the 1940s. Their discipline was surprising. In the morning the group would set out from its sleeping sites to a feeding station established by Japanese zoologists. They walked always in the same order, the young males frolicking on ahead and at the sides, the dominant male walking in the centre, together with the females and the infants.
- 4. The meek ones lagged behind in submission. They fed always in similar order of ranks: the dominant monkeys first, then the others in descending gradation of status. And, while resting, the dominant males surrounded by females and infants, occupied the most attractive area in the middle of the feeding station, where no subordinates were allowed to encroach.
- 5. There is no mistaking a dominant male monkey. These are superbly muscled monkeys. Their hair is sleek and carefully groomed their walk calm, assured and majestic. They move in an apparent disregard of lesser monkeys who scatter at their approach. For to obstruct the path of a dominant male or even to venture, too near to him is an act of defiance, and monkeys learn from young that such a challenge will draw a heavy punishment.
- 6. The animal behaviour has always fascinated humans and extends back millions of years, perhaps even to times before the ancestors of the species became human in the modern sense. It was the demand as

1×6=6 rkplace

they need to observe the distinctive traits of animals before hunting them or domesticating them for personal or professional use.

2.1 On the basis of your understanding of the above passage make notes on it using headings and subheadings. Use recognizable abbreviations (wherever necessary-minimum four) and a format you 5 consider suitable. Also supply an appropriate title to it. 3

Write a summary of the passage in about 80 words. 2.2

SECTION – B (WRITING) & GRAMMAR

You are the proprietor of Hotel Starlight Gurgaon. You want to dispose of this property since you have Q.3 decided to buy a flat in the heart of the city. Write an advertisement to be published in a national daily in not more than 50 words, giving all the necessary details. You are Chandra Shekhar Rao of 15, NTR Street, Gurgaon. 4

OR

You are Anoop/Arya, the cultural secretary of your school. As a part of national heritage programme, the school has decided to put up a show on ancient art forms. Write a notice to be put on the school notice board inviting students to watch the show and encourage the artists.

Q.4 You are Rashi/Rishi of w/102, MN Nagar, Delhi. Write a letter to the editor of the Hindustan Times expressing your concern about the decrease in the number of the birds in the Sultanpur Bird Sanctuary due to the rapid urbanization of the area around the Sanctuary. Write the letter in about 120-150 words.

OR

This winter you are planning to go on a holiday to Maharashtra with your family. Write a letter to Maharashtra Tourism enquiring about the various places that you can go sightseeing and the availability of accommodation in the main cities you are likely to visit. 6

Q.5 You are principal, Kendriya Vidyalaya, Ramnagar. The number of students in the computer class is increasing. Next year in starting april 2020, you will need 25 more computers in your lab. Write a letter in 120-150 words to the commissioner, K.V. sangathan for funds. 6

OR

KPMG is looking for management graduates from the top ranking business schools of the country for their offices in the top cities of the country. You are Arun Rao of Dehradun with a management degree from IIM Bangalore. Write the application with the relevant details.

Q.6 Peehu witnessed a case of road rage on her way to school when a young cyclist was manhandled by the driver of a BMW for brushing past his side windows. She is shocked at this blatant show of strength and lack of patience in the driver, she decides to express her views on the issue in the form of an article for the 8 school magazine.

OR

You are Tanya Manchanda a student of FBI public school, Mysore. You attend a seminar on eve-donation and write a report for the Deccan Chronicle, Mysore describing the event, the discussions held and other relevant details. Write the report inventing details wherever necessary.

[b] ------

[c] ------

[d] ------

Q.7 In the passage given below, one word has been omitted in each line. Write the missing word along with the word that comes before and the word comes after it in the space provided. $1/2 \times 4 = 2$ [a] ------

The popular musical Rhythm known Forro originated in the northeast Brazil and is now popular all over country. Besides music the country is famous its beaches, or you can walk down narrow streets.

- **Q.8** Rearrange the following words to make meaningful sentences. One has been done as an example. $\frac{1}{2} \times 4 = 2$ Eg. it/better person/and/the/to deal with/a/boredom/make/learning/you
 - \rightarrow Boredom and the learning to deal with it, make you a better person.

[a] interpersonal/you/in developing/it/skills/helps

- [b] with in/you/discover/it/helps/those/lurking/inner/you/resources
- [c] forever/remained/that/have/otherwise/buried/would/within you
- [d] you/yourself/to spend/boredom/teaches/time/also/with

Q.9 Fill in the blanks with correct words

Every city should have a flower that (a) ------ can call its own. Some already do. Tokyo is (b) -----its best when the cherry blossoms bloom. Amsterdam (c) ------ the tulip. And our own Delhi has the laburnum which blazes (d) ----- over the capital every spring.

SECTION – C (LITERATURE)

Q.10 Read extract & answer the questions which follows (any 2)

Now she's been dead nearly as many years

As that girl lived. And of this circumstance

There is nothing to say at all. Its silence silences.

(a). What does "that girl lived" refer to?

(b). Explain "And of this circumstance"?

- (c). Explain "Its silence silences"?
- Short answer questions (30-40 words) (any 5) 0.11
 - (a). Describe the concept of sustainable development?
 - (b). Give three reasons why the author's grandmother was disturbed when he started going to the city school?
 - (c). Define the term "outsider art".
 - (d). Describe the character of uncle Khossove.
 - (e). What duty of the husband, sons and daughters does Mrs. Fitzgerald talk about?

(f). Was it a friendly gesture on the part of Mrs. Dorling or was she mean and cunning when she took valuable things from her friend's house?

Q.12 Long type question -(120-150 words) 6 Why does the author over that the growth of world population is one of the strongest factors distorting the future of human society?

OR

A classical Chinese landscape is not meant to reproduce an actual view, as would a western figurative painting. Comment.

Q.13 Long type question - (120-150 words) 6 Indian society has moved a long way from the way the marriage is arranged in the story "Ranga's marriage". Comment.

OR

Define Einstein's nature from his conversations with his history teacher, his mathematics teacher & the head-teacher.

Q.14 Talk about the changing phase of friendship between the author and his grandmother.

OR

"Laws are never respected nor enforced in India". Explain this statement with reference to the lesson "The Ailing Planet --- the green Movement's role"?

Section – D Listening skills & Speaking skills

20

6

 $1 \times 2 = 2$

 $2 \times 5 = 10$

Half Yearly Examination 2019 – 2020

Time: 3:00 Hrs.

M. M. 70

<u>Section – A</u>

Section - A [20 Questions each carry One Mark]

- Q.1 Write full form of ICBN & ICZN.
- Q.2 What is key?
- Q.3 Write any four draw backs of two kingdoms classification.
- Q.4 Difference between Archaeobacteria and Eubacteria.
- Q.5 Why Bryophytes are called Amphibians of the plant kingdom?
- Q.6 Write any uses of Algae to human.
- Q.7 What is difference between open and closed type of circulation?
- Q.8 What is gastrovascular cavity and in which organism it is present?
- Q.9 Write the different name of modified roots with example.
- Q.10 What is difference between Pinnately and Palmately compound leaf?
- Q.11 Write various types of vascular bundles.
- Q.12 What is cork cambium or phellogen?
- Q.13 What is difference between simple & compound Epitheluini?
- Q.14 What is difference between areolar and adipose loose connective tissue?
- Q.15 Write the name of two non-membrane bound cell organelle.
- Q.16 What is Polyribosome?
- Q.17 Define biomolecules.
- Q.18 Define biomacromolecules.
- Q.19 What do you understand by Partheno carpic fruit?
- Q.20 Phylum chordate is divided into how many subphyla. Name them.

Section – B

Section - B [7 Questions each carrying Two Marks]

- Q.21 What are cofactors and opoenzymes?
- Q.22 Draw internal structure of cilia.
- Q.23 What are difference between voluntary, involuntary and cardiac muscles? (Any Four)
- Q.24 What is secondary growth?
- Q.25 What is Aestivation and write the name of their types.

OR

Write the difference position of floral parts on thalamus.

Q.26 Write the excretory, organ of Annelida, Artopoda, Mollusca and Platyheliminthes.

OR

What is caelom and write their types?

Q.27 What is Prothallus and homo or hetero sporous in Pteridophyta?

OR

What is Phycobiont and mycobiont?

Section – C

Section - C [7 Questions each carry Three Marks]

- Q.28 Difference between chrysophytes, Dinoflagellates and Euglenoids classes of kingdom Protista.
- Q.29 Draw diagram of Bacteriophoge.
- Q.30 Draw life cycle Bryophytes.

OR

Draw life cycle of Liverulorts.

- Q.31 Explain reproduction of Gymnosperm.
- Q.32 Difference between Pisces and Amphibians.

OR

Difference between Reptilia and Aves.

Q.33 What is Inflorescence and write their types?

OR

What is Phyllotoxy and write their types?

Q.34 Explain and draw T.S. of Dicot stem.

Section – D

Section - D [Total 3 Questions each carry Five Marks]

Q.35 Explain the formation and activity of cambium ring in dicot Item.

OR

Difference between all the types of simple Epithelium tissue.

Q.36 Draw and explain the alimentary canal or cockroach.

OR

Draw and explain reproductive system of cockroach.

Q.37 Draw and explain the Fluid mosaic model of Plasma membrane.

OR

Explain classification and Nomenclature of Enzymes.

Roll. No.	соде No. 11/Chemistry/NLCS/24
	Half Yearly Examination 2019 – 2020
Time: 3:00 H	
	o. 1 to 20 carry One Mark each.
-	32.508 in scientific notation.
Q.2 1L=	cm ³ .
Q.3 1amu =	=g.
Q.4 Mass of	f electron = kg.
Q.5 The ene	ergy of a quantum of radiation is expressed by
	ingular nodes are calculated by the formula
	the formula of compound formed by Aluminium & Sulphur
	idation state of oxygen in OF_2 is
	mal charge on C in CO is
	ape of SF ₄ is
	bridisation of PCI ₅ is
	drogen bond is formed between &
	uation for combined gas law is
	Waals equation can be written as
	st law of thermodynamics mathematical equation is
•	operty which do not depend on the quantity of matter
	rd Gibbs energy is related to equilibrium constant by the formula is
	KC, between reaction gases from to
	are substances capable of accepting a hydrogen ion (H ⁺). on of weak bases are calculated by
	1 to 27 carry Two Marks each.
	nsity of 3M solution of NaCl is 1.25 g/ml^{-1} . Calculate Molality of the solution.
u	OR
	: (i) law of definite proportion (ii) Molarity
Q.22 Calcula	ate the energy associated with the first orbit of He^+ . What is the radius of this orbit?
Tho	for a metal is 7×10^{14} S ⁻¹ . Calculate the K.E. of an electron emitted when radiation of
	The ametal is 7×10^{-5} S $^{-1}$ hits the metal.
	Electron gain enthalpy of oxygen is less than Sulphur. Why?
	I st Ionization enthalpy of boron is slightly less than that of beryllium. Why?
Q.24 Draw th	The Lewis structure of – (i) CO_3^{2-} (ii) O_3
Q.25 Explain	kinetic molecular theory. OR
What w flask at	vill be the pressure exerted by a mixture of 3.2g of methane & 4.4g of CO_2 contained in a 9cm ³ t 27°C2
	ate ΔG^{Θ} for conversion of oxygen to Ozone, $\frac{3}{2}O_2(g) \rightarrow O_3(g)$ at 298K. If Kp for this
	,
	sion is 2.47×10^{-29} .
Q.27 At equil	librium, the concentrations of $N_2 = 3 \times 10^{-3} M$, $O2 = 4.2 \times 10^{-3} M$ and $NO = 2.8 \times 10^{-3} M$ in a
sealed	vessel at 800K. What will be KC for the reaction $N2(g) + O_2(g) \rightleftharpoons 2NO(g)$.
Question No	o. 28 to 34 carry Three Marks each.
-	lue of KC=4.24 at 800K the reaction $CO(g) + H_2O(g) \rightleftharpoons CO_2(g) + H_2(g)$.
	ate equilibrium concentrations of $CO_2, H_2, CO \& H_2O$ at 800K, if only CO and H_2O are
	d initially at concentration of 0.10 M cook

pressed initially at concentration of 0.10 M each. OR

Calculate the pH of solution formed on mixing 0.2M NH₄Cl & 0.1M NH₃. The POH of ammonia solution is 4.75.

Q.29 Calculate enthalpy change for the process

 $CCl_4(g) \rightarrow C(g) + 4Cl(g)$ & Calculate bond enthalpy of C - Cl in $CCl_4(g)$.

 $\Delta VapH^{\Theta}(CCl_4) = 30.5 KJ / mol$

 $\Delta CH^{\Theta}(CCl_{A}) = -135.5 KJ / mol$

 $\Delta a H^{\Theta}(C) = 715 K J / mol$

 $\Delta a H^{\Theta}(Cl_2) = 242 K J / mol$

Q.30 Write short not on liquification of gases.

OR

A neon-dioxygen mixture contains 70.6g dioxygen & 167.5g neon. If pressure of the mixture of gases in the cylinder is 25 bar. What is the partial pressure of dioxygen & neon in the mixture?

- Q.31 (i) Which out of $NH_3 \& NF_3$ has higher diple moment & why?
 - (ii) Discuss the shape (a) BeCl₂(b) BCl₃

OR

Write resonance structures for $SO_3, NO_2 \& NO_3^-$.

Q.32 (I) $N^{3-}, O^{2-}, F^-, Na^+, Mg^{2+} \& Al^{3+}$

(ii)

- (a) What is common in them? (b) Arrange them in the order of increasing ionic radii Write the limitation of Mendeleev periodic table
- Q.33 Explain the rules for filing orbitals in atom.
- Q.34 Calculate the molarity of a solution of ethanol in water in which the mole fraction of ethanol is 0.040.

Question No. 35 to 37 carry Five Marks each.

- Q.35 (i) An element with mass no. 81 contain 31.7% more neutrons as compared to proton. Assign the atomic symbol.
 - (ii) The mass of an electron is 9.1×10^{-31} kg. If its K.C. is 3×10^{-25} J. Calculate its wavelength.

OR

- (i) Calculate the wavelength, frequency & wave number of a light wave whose period is 2×10^{-10} s.
- (ii) Explain photoelectric effect (n) Heisenberg uncertainty principle.
- Q.36 (i) 34.05 $m\ell$ of phosphorous vapour weighs 0.0625g at 546°C & 0.1bar pressure. What is the molar mass of phosphorous?
 - (ii) Write short note on (a) surface tension (b) Viscosity

OR

- (i) Explain the various attractive intermolecular forces (Vander Waals force)
- (ii) A balloon is filled with hydrogen at room temperature. It will burst if pressure exceeds 0.2bar. If at 1 bar pressure the gas occupies 2.27 ℓ volume, upto what volume can the balloon be expanded?
- Q.37 (i) Explain the various classification of acid & base.
 - (ii) Calculate ΔG° & KC for the formation of NO₂ from NO & O₂ at 298 K $NO(g) \frac{1}{2}O_2(g) \rightleftharpoons NO_2(g)$ where $\Delta G^{\circ}(NO_2) = 52KJ / mol \quad \Delta G^{\circ}(NO) = 87KJ / mol$ $\Delta G^{\circ}(O_2) = 0KJ / mol$.

OR

- (i) Explain Lechatlier Principle. Also explain the factor affecting it.
- (ii) Kp=0.04 atm at 899K for the equilibrium shown below. What is the equilibrium concentration of C_2H_6 when it is placed in a flask at 4.0 atm pressure & allowed to come to equilibrium? $C_2H_6(g) \rightleftharpoons C_2H_4(g) + H_2(g)$.

Roll. No.

code No. 11/Physical Ed./NLCS/55

Half Yearly Examination 2019 – 2020

Time: 3:00 Hrs.

M. M. 70

Very short Answer Questions carry 1 Mark (20 to 30 words).

- Q.1 Define Physical Education.
- Q.2 What is Aim of Physical Education?
- Q.3 Enlist the Diploma courses in Physical Education.

OR

Enlist the soft skills required in the careers of Physical Education.

- Q.4 What is Olympic movement?
- Q.5 What is Olympic motto?
- Q.6 Elucidate about the symbol of modern Olympic Games.

OR

What is the Aim of C.B.S.E. Sports?

- Q.7 What is flexibility?
- Q.8 What do you mean by strength?
- Q.9 Define 'Endurance'.
- Q.10 What is body composition?
- Q.11 What do you mean by 'Adaptive Physical Education'?
- Q.12 What do you mean by 'Special Olympic Bharat'?
- Q.13 What do you mean by I.P.C.?

OR

What do you mean by integrated Physical Education?

- Q.14 What do you mean by Shatkarmas or Yogickriyas?
- Q.15 What is yoganidra?
- Q.16 What is 'Asteya'?
- Q.17 Explain briefly the procedure of 'Tadasana'.
- Q.18 What do you mean by surfing?
- Q.19 What do you mean by leadership?
- Q.20 Define Adventure Sports.

What is River Rafting?

Short Answer Questions carrying 3 Marks (80 to 90 words).

- Q.21 What are the various career options in Physical Education? Explain it.
- Q.22 Discuss the changing trends in Physical Education in India.
- Q.23 Briefly explain about International Olympic Committee.
- Q.24 Mention the Rules for competitions in Ancient Olympic Games.

OR

Discuss about various Sports Awards.

- Q.25 Discuss any three components of health Related Physical Fitness.
- Q.26 Discuss about any three components of wellness.
- Q.27 Briefly discuss Paralympics Games.

OR

Discuss only three Advantages of Yoganidra.

- Q.28 Write about it (i) Yama (ii) Niyama (iii) Pranayama
- Q.29 Explain the classification of Asanas.
- Q.30 Describe any three qualities of leaders.

OR

Describe any three stages of behavior changes for Physical Activity.

Long Answer Questions carrying 5 Marks (150 to 200 words).

- Q.31 What do you mean by soft skills? Discuss any five soft skills which are required for the career in field of Physical Education.
- Q.32 Write short notes in brief on the following :
 - (i) Olympic motto (ii) Olympic flag (iii) Olympic flame
 - (iv) Olympic Award (v) Olympic Oath

OR

What do you mean by the term 'Life Style'? Elucidate the importance of Positive Healthy Life Style in detail.

Q.33 Describe in detail about the Role of various professionals for children with special needs.

OR

What do you mean by Yoga? Explain its importance in daily life.

Q.34 Define physical activity explain its types also.

Roll.	No.		_			CONOMICS/NL	cs/ 58
		Half Yea	rly Examin	atio	n 2019	0 - 2020	
	e: 3:00) Hrs. truction					M. M. 100
1-All (2-Mai	questic rks for	on in both sections an questions are indicat should be brief and to	ed against each ma		nomics		
Q.1	Whic	h of the following is a	statement of norma	ative nat	ure in econo	mics	1
	(a)	Economics is study	of choices				
	(b)	Govt. should be cor	ncerned with how to	reduce	unemployme	ent	
	(c)	According to an est	imated in spite of se	evere sh	ortage ,more	than 10precent of	of houses in
		Indian cities are lyir	ng vacant				
	(d)	Accommodation of	refugees in posing	a big pr	oblem for the	e Europe.	
Q.2	Hum	an wants are					1
		(a)one thousand	(b)few	(c)Inn	umerable	(d) Countable	
Q.3	A cor	nsumer is in equilibriu	Im when MU are				1
		(a)Minimum	(b)Highest	(c)Equ	ual	(d)Increasing	
Q.4	Whe	n MU is negative, it m	nust be true that				1
		(a)TU is maximum	(b)TU is minimum	(c)TU	=0 (d)TL	J>1	
Q.5	Utility	is most closely relate					1
		(a)Useful	(b)Useless	. ,	cessary (d)Sa	itisfaction	
Q.6		and Curve Slopes do					1
	. ,	onsumer equilibrium	(b)Utility ma				
		tility minimization	(d)Diminisin	0 0	nal Utility		
Q.7		sumer's spending is i				/ N. I. II	1
• •	()	arginal Utility (b)Bu	0	. ,	mand Curve	(d)Utility Maximi	
Q.8	Law	of Substitution is anot					1
		(a)Law of diminishin			ginal utility		
0.0		(c)Law of demand	(d)Satisfacti				4
Q.9	Indiff	erence Curves are co	-	ecause	4.) T		1
		(a)Two goods are p				ds are imperfect su	ubstitution
0.10	الم ال	., -	erfect Complementa	ary	(d)None of t	he above	4
Q.10	In dif	ference curve slopes					1
		(a)Downward	(b)Upward	-			
		and Ourse also as a	OI (a) Tri		(b) [!		
	Dem	and Curve slopes up	ward (a)Tri	ue	(b)False		

OR

Draft a hypothetical schedule for a straight time PPC.

Q.12 Giving reason, state the impact of each of following on demand curve of a normal good 'x' if; 3 (a)Price of its complementary goods falls

(b)News reports claim that consumption of product x has harmful effect on human health (c)Income of consumer increases.

Q.13 Given the price of good, how will a consumer decide as to how much quantity buy of that good?Explain.

OR

What is Indifference Curve? State three properties of IC

- Q.14 A 5% fall in the price of good x leads to a 10% rise in its quantity demanded. A 20% rise in the price good x, lead to a10% fall in its quantity demanded .Calculated the price elasticity of demand of the two goods out of the goods. Which one is more elastic?
- Q.15 Define opportunity lost. Discuss briefly with the help of a numerical example.
- Q.16 Explain the conditions consumer's equilibrium in case of single commodity use utility approach.6

OR

Explain the conditions of consumer's equilibrium in case of two commodity use utility approach.

Q.17 Explain the causes of right ward shift in demand curve.

Section B-Statistics

Q.18	Data in the Population Cer	nsus Report is			1
	(a)Grouped Data	(b)Primary Data	(c)Secondary Data	(d)None of the above	
Q.19	The height of a student Is	60 inches .This is an	example of		1
	(a)Qualilative data	(b)Quanlitative data	(c)Categorise	ed data (d)None of the abov	е
Q.20	In statistics, conducting a s	survey means			1
	(a)Collecting information fr	om elements	(b)Making mathema	atical calculations	
	(c)Drawing graphs and pic	tures	(d)None of the above	/e	
Q.21	In statistics, a sample mea	ins			1
	(a)A portion of the sample	means	(b)A portion of the p	oopulation	
	(c)All the items under invest	stigation	(d)None of the above	/e	
Q.22	In statistics, a population c	onsists of			1
	(a)All people living i	n a country (b) All	people living in the a	area under study	
	(c)All subject or object	ects whose characte	ristics are being stud	lied	

(d)None of the above

3

4

Q.23	In a freque	ncy d	istrib	ution the	e last	cumu	lative	frequ	iency							1
	ls 5	00 Q ₃	mus	t lie in												
	(a)3	75 ite	ms	(b)175	items	;	(c)2	275 iter	ms	(d)150	iter	ns		
Q.24	Find the m	edian	of th	e follow	, ina di	ata 16	60.180). 200	. 280 .	300. 4	, 100.	,				1
	(a)2)180		,	(c)3		,		d)140				
0 25	Non samp		ror is	,	,			(0)0			(a) i io				1
Q.20	-	-			-			(1-) [-			:				I
	()		•	sample				• • •	Decrea		•	e size				
	(C)	Reduc	ingar	mount o	of dat	а		(d)I	None o	of these	е					
Q.26	•		t of						<i>(</i>) •				/ N I			1
Q.27	(a)E Cumulative		1000	(io		(b)Gro	•	0000	• •	Popula	ation		(d)I	tself		1
Q.27		ixed	lency			easing	•	lency		Decrea	nniae		(d)r	one	of abo	•
	(u)i	ixed		(, more	ouoni		R	(0)	Boolot	Johng		(0)		01 000	
	The average	ge val	ue of	the low	ver an	d upp	er lim	it of a	class	is calle	ed					
	(a)N	/id-po	int	(b) Cla	ss fre	quenc	;y (c)	Class b	ounda	ary (d)Cla	ss ir	nterva	ıl	
Q.28	Locate me	dian c			ng fre	-	-									3
				ize		3	4	5	6		7	8	-			
			F	requenc	сy	6	9	11 R	14	1 2	23	10	-			
	Write any t	hraa	suitak	aility of (Somo			n								
		TTEE 9				пе кле	nonte									
Q.29	Write any t Calculate			-	Samp	ne ivie	ethod.									3
Q.29	Calculate		nd Q3	3			12	16	6	8	20	9		13	15	3
Q.29 Q 30	-	Q1 ar Incom	nd Q3 ne(rs)	3) 3		6	12									22
	Calculate In a compe coefficient	Q1 an Incom etition correl	nd Q3 ne(rs) ,two ation	3) 3 judges	rank t	6 the 10	12) entrie	es as	follows	s. Calo	ulate	the s	pea	rman	's ranl	22
	Calculate In a compe coefficient Judge A	Q1 ar Incom etition correl	nd Q3 ne(rs) ,two ation 2	3) 3 judges 3	rank t	6 the 10 4	12) entrie	es as	follows	s. Calo	ulate	the s	pea	rman 10	's ranl	22
	Calculate In a compe coefficient	Q1 ar Incom etition correl	nd Q3 ne(rs) ,two ation	3) 3 judges	rank t	6 the 10	12) entrie 5 7	es as	follows	s. Calo	ulate	the s	pea	rman	's ranl	22
	Calculate In a compe coefficient Judge A Judge B	Q1 ar Incom etition correl 1 10	nd Q3 ne(rs) ,two ation 2 6	3 judges 3 5	rank t	6 the 10 4	12) entrie 5 7 0	es as 6 9 R	follows	s. Calo	ulate	the s	pea	rman 10	's ranl	22
Q 30	Calculate In a compe coefficient Judge A Judge B Draw a ba	Q1 ar Incom etition correl 1 10 r diagr	nd Q3 ne(rs) ,two ation 2 6 ram.	3 judges 3 5 Write st	rank t	6 the 10 4 4	12) entrio 5 7 0 structi	es as 6 9 R on	follows	7 8	late	the s	pea	rman 10 3	's ranl	22 < 4
	Calculate In a compe- coefficient Judge A Judge B Draw a ba Locate the	Q1 ar Incom etition correl 1 10 r diagr value	nd Q3 ne(rs) ,two ation 2 6 cam. ¹ cam. ¹	3 judges 3 5 Write st mode us	rank t eps o sing	6 the 10 4 4 f cons histog	12) entrid 5 7 O structi gram a	es as 6 9 R on ind ju:	follows	7 8	late	the s	pea	rman 10 3	's ranl	22
Q 30 Q.31	Calculate	Q1 ar Incom etition correl 1 10 r diagr value value	nd Q3 ne(rs) ,two ation 2 6 cam. ' s of r of his	3 judges 3 5 Write st mode us stogram	rank t eps o sing	6 the 10 4 4 f cons histog the fc	12) entrid 5 7 O structi yram a	es as 6 9 R on und ju	follows	7 8 our ans	late	the s	rapł	rman 10 3	's ranl	22 4 4
Q 30 Q.31	Calculate	Q1 ar Incom etition correl 1 10 r diagr value value value rs)	nd Q3 ne(rs) ,two ation 2 6 ram. ¹ s of r of his	3 judges 3 5 Write st mode us stogram	eps o sing from 5-25	6 the 10 4 4 f cons histog the fc	12) entrid 5 7 0 structi gram a pllowin	es as 6 9 R on und ju	stify yo	7 8 our ans	swer.(the s	rapł	rman 10 3 n) 5-65	's ranl	22 4 4
Q 30 Q.31	Calculate	Q1 ar Incom etition correl 1 10 r diagr value value rs) orkers coeffic	nd Q3 ne(rs) ,two ation 2 6 ram. ¹ s of r of his of his 2 iient of	3 judges 3 5 Write st mode us stogram 5-15 1 4 6 of rank o	eps o sing from 5-25	6 the 10 4 4 histog the fo	12) entrid 5 7 0 struction gram a billowin 25-35 10 from t	es as 6 9 R on ind juin ing dat 5	stify yo a. 35-45 Iowing	5 Calc 7 8 0ur ans 5 data	8 2 swer.(the s	rapł	rman 1(3 1) 5-65	's ranl	22 4 4
Q 30 Q.31 Q.32	Calculate	Q1 ar Incom etition correl 1 10 r diagr value value value orkers coeffic 90	nd Q3 ne(rs) ,two ation 2 6 ram. ' s of r of his of his ient of	3 judges 3 5 Write st mode us stogram 5-15 1 4 6 of rank o 88	eps o sing from 5-25	6 the 10 4 4 histog the fo	12 entrid 5 7 ostructi gram a bllowin 25-35 10 from t 85	es as 6 9 R on ind jui ig dat he fol	stify yo a. 35-45 lowing 78	5 Calc 7 8 our ans 5 data 77	8 2 swer.(the s 9 1 use g 5 60	rapł	rman 10 3 10 3 10 5-65 69	's ranl	22 4 4 4
Q 30 Q.31 Q.32 Q.33	Calculate	Q1 ar Incom etition correl 1 10 r diagr value value rs) orkers coeffic 90 22	nd Q3 ne(rs) ,two ation 2 6 ram. ' 2 6 ram. ' 4 of his of his iient o	3 judges judges 3 5 Write st mode us stogram 5-15 1 4 6 of rank (88 23	eps o sing from 5-25 correl 85 24	6 the 10 4 4 f cons histog the fo ation	12) entrid 5 7 0 structi gram a bllowin 25-35 10 from t 85 24	es as 6 9 R on ind jui ig dat he fol	stify yo a. 35-45 Iowing	5 Calc 7 8 0ur ans 5 data	8 2 swer.(the s	rapł	rman 1(3 1) 5-65	's ranl	22 4 4 4 6
Q 30 Q.31 Q.32	Calculate	Q1 ar Incom etition correl 1 10 r diagr value value rs) orkers coeffic 90 22	nd Q3 ne(rs) ,two ation 2 6 ram. ' 2 6 ram. ' 4 of his of his iient o	3 judges 3 judges 3 5 Write st mode us stogram 5-15 1 4 6 of rank of 88 23 f Mean,	eps o sing from 5-25 correl 85 24	6 the 10 4 4 4 f cons the fo the fo ation	12) entrid 5 7 0 struction pram a billowin 25-35 10 from t 85 24 3.	es as 6 9 R on ind jui ig dat he fol	stify yo a. 35-45 5 Ilowing 78 24	5 data 7 data 77 26	8 2 swer.(45-5 3	the s 9 1 use g 5 60	raph	rman 10 3 1) 5-65 69 27	's ranl	22 4 4 4
Q 30 Q.31 Q.32 Q.33	Calculate	Q1 ar Incom etition correl 1 10 r diagr value va	nd Q3 ne(rs) ,two ation 2 6 ram. ' 2 6 ram. ' 4 of his of his iient o	3 3 judges 3 judges 5 Write st 5 write st 5 Stogram 5 5-15 1 4 6 of rank of 88 23 f Mean, 0-10	eps o sing from 5-25 correl 85 24	6 the 10 4 4 4 f cons histog the fo ation ation 10-2	12) entrid 5 7 0 struction pram a billowin 25-35 10 from t 85 24 3. 20	es as 6 9 6 9 9 6 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	stify yo a. 35-45 5 Ilowing 78 24	5. Calc 7 8 0ur ans 5 data 77 26 30-	8 2 swer.(45-5 3	the s 9 1 use g 5 60	rapł	rman 10 3 1) 5-65 69 27	's ranl	22 4 4 4 6
Q 30 Q.31 Q.32 Q.33	Calculate	Q1 ar Incom etition correl 1 10 r diagr value va	nd Q3 ne(rs) ,two ation 2 6 ram. ' 2 6 ram. ' 4 of his of his iient o	3 judges 3 judges 3 5 Write st mode us stogram 5-15 1 4 6 of rank of 88 23 f Mean,	eps o sing from 5-25 correl 85 24	6 the 10 4 4 4 f cons the fo the fo ation	12) entrid 7 7 0 struction ram a billowin 25-35 10 from t 85 24 3. 20	es as 6 9 R on ind jui ig dat he fol	stify yo a. 35-45 5 Ilowing 78 24	5 data 7 data 77 26	8 2 swer.(45-5 3	the s 9 1 use g 5 60	raph	rman 10 3 1) 5-65 69 27	's ranl	22 4 4 4 6

PROJECT + ORAL →

Roll.	No.		соде No. 11/Computer Sc./NLCS	/25
		Half Yea	rly Examination 2019 – 2020	
Tim	e: 3:00 Hrs.		-	M. M. 70
Q1.	-	-	atement in python with example.	2
	[b] Different	tiate between mu	table and immutable data types with example.	2
	[c]Give the o	output produced	by following statement:	2
	(i) (1	7%5)	(ii) (17%5.0)	
	(iii)(17%5) is (17%5)	(iv) $(17\%5.0) = (17\%5.0)$	
	[d]Which of	the following ar	e valid and invalid identifiers/literals in python:	2
	4que	ue, int, count, if,	4, name, four, -two	
Q2	[a]Draw a fl	owchart to deter	mine if the first number is divisible by second number or not?	2
	[b]Find synt	ax error(s) if any	, in the following program:	2
	(i)	MAX='4'		
		a=int(input("enter the value of a:"))	
		b=int(input("enter the value of b:"))	
		if(a>b)	
			MAX=5	
		for x i	n range(0,MAX):	
		print(x	x)	
	(ii) name	=REHMAN		2
		print("greetin	gs!!")	
		print('	'hello'',name)	
		print('	'how do you do?'')	
	[c]Write a p	rogram to add th	e odd numbers up to a given value N and print the results.	2
	[d] What is t	he output produc	ced by following codes:	
	(i)	x=1		2
		if x>3:		
		if x>4		
			print("A",end = ' ')	
		else:		
			print("B",end = ' ')	
		elif x<2:		
		if (x!=	0):	
		(print("C", end= ' ')	
		print("D",end		

string=input("enter a string: ") 3 (ii) count=3while True: if string[0] == a': string=string[2:] elif string[-1]=='b': string=string[:2] else: count=count+1 break print(string) print(count) what will be the output produced, if the input is: (1)aabbcc (2)aaccbb (3)abcc [e] Write a program to print the sum of following sequence : 3 $s = 1 + x^{2} + x^{3} + x^{4} + \dots + x^{n}$ OR Write a program to print factorial of number n, where n is input by user.

Q3

[a]How is capitalize () function different from upper() function?

[b]Write a program to count number of 'p' in the string "pineapple"

[c]Find the output of following codes:

str="group discussion" print(str.lstrip("gro")) print(str.lstrip("org"))

print(str.lstrip("nco"))

print(str.lstrip("uss"))

[d] Write a program to input a character and print whether it is an uppercase or a lowercase or a digit or any other character. 3

2

2

2

3

Q.4 [a]Write a program to print the following pattern:

- 4 3 2 1
- 4 3 2
- 4 3
- 4

[b]What are jump statements? explain with the help of example.

[c]Suggest appropriate functions for the following tasks:

(i) To check whether the string contains digits.

- (ii) To find occurrence of a string within another string.
- (iii)To check whether all the letters of the string are in capital letters.

(iv)To remove whitespace from beginning of the string.

(v)To check if the string contains alphabets or numbers

(vi)To convert the string to lowercase letters.

[d] Write a program that reads a string and print total number of alphabets, digits and spaces in the string.

3

3

2

OR

Write a program that reads a line and then a substring, and then display the number of occurrence of given substring in the line.

[e] Write a program to design a calculator with following mathematical operations(+,-,%,/,*). 3 According to choice(1 for +, 2 for -, 3 for *,4 for /, 5 for %) of user get two input and display result.

Q.5 [a] Add the following binary numbers:

Q.6

Q.7

	(i)110110.011 and 011.11	(ii) 1001011 and 111001	
	[b] Convert the following:		4
	(i)(EB4A) ₁₆ to (?) ₈	(ii)(11011101.0111) ₂ to (?) ₁₀	
	(iii)(25.25) ₁₀ to (?) ₂	(iv)(7CA3) ₁₆ to (?) ₁₀	
6	[a] Name the law and verify using truth	table: X(Y+Z)=XY+XZ	2
	[b]Draw the logic circuit for (a'b'cd+abc	'd+a'b'cd)	2
	[c]State and prove De Morgan's theorer	n algebraically	3
	[d]Prove algebraically: X'Y+Z=(X'+Y	(+Z)(X'+Y+Z)(X+Y+Z)	3
7	[a]What is the role of CPU of a mobile s	system?	2
	[b]Explain : (i)Language processor	(ii)Utilities	4

Roll. No.

Half Yearly Examination 2019 – 20

Gene	e: 3:00 Hrs. ral Instructions :			M. M. 100
(i) (ii)	•	estions of 1 mark ea	. Section D contains	ins 6 questions of 2 marks each. 4 questions of 6 marks each.
Multi	ole Choice Questions :			
Q.1	If $A = \{1, 2, 3, 4, 5\}$ then the m	umber of proper subse	ets of A is –	
	(a) 120 (b) 30	(c) 31	(d) 3	2
Q.2	For any two sets A and B ,	$A \cap (A \cup B) =$		
	(a) A	(b) B	(c) <i>\phi</i>	(d) None of these
Q.3	If $A = \{1, 2, 4, \}, B = \{2, 4, 5\},\$	$C = \{2, 5\}$ then $(A - B)$	$\times (B-C)$ is :	
	(a) $\{(1,2)(1,5)(2,5)\}$	(b) $\{(1,4)\}$	(c) $(1, 4)$	(d) None of these
Q.4	Which on of the following i	s not a function?		
	(a) $\{(x, y): x, y \in R, x^2 = y\}$	(b) $\{(x, y) : x, y \in R, \}$	$y^2 = x \Big\}$	
	(c) $\{(x, y): x, y \in R, x = y^3\}$	(d) $\{(x, y) : x, y \in R, \}$	$y = x^3$	
Q.5	If $f(x) = \cos^2 x + \sec^2 x$, the	en :	2	
	(a) $f(x) < 1$	(b) $f(x) = 1$	(c) $2 < f(x) < 1$	(d) $f(x) \ge 2$
Q.6	The value of sin15° is :			
	(a) $\frac{\sqrt{3}+1}{2\sqrt{2}}$	(b) $\frac{\sqrt{3}-1}{2\sqrt{2}}$	(c) $\frac{\sqrt{3}+1}{\sqrt{3}-1}$	(d) None of these
Q.7	The value of $\sqrt{-1}$ is :			
	(a) i^2	(b) \sqrt{i}	(c) <i>i</i>	(d) $\frac{1}{i}$
Q.8	If $a = 1 + i$, then a^2 equals :			
	(a) $1 - i$	(b) 2 <i>i</i>	(c) $(1+i)(1-i)$	-i) (d) $i-1$
Q.9	The amplitude of $\frac{1}{i}$ is equal	to :		
	(a) 0	(b) $\frac{\pi}{2}$	(c) $\frac{-\pi}{2}$	(d) <i>π</i>
Q.10	If x is a real number and $ x $	< 5 then :		
	(a) $x \ge -5$	(b) $-5 < x < 5$	(c) $x \le -5$	$(d) -5 \le x \le 5$
Q.11	If $x < 7$ then :	(b) x < 7	(a) $r > 7$	$(d) \rightarrow 7$
Q.12	(a) $-x < -7$ Which of the following senter			(d) $-x \ge -7$
X.12	(a) Every set is a finite set(c) All triangles have three s		(b) Listen to me, Ra	vi! s are complex numbers

The value of $(A')' = ?$			
(a) \bigcup	(b) <i>A</i> '	(c) <i>A</i>	(d) <i>φ</i>
The Range of $f(x) = - x $ is	:		
(a) $(-\infty, 0)$	(b) <i>R</i> ⁺	(c) $\left(-\infty,\infty\right)$	(d) None of these
The degree measure of $\frac{7\pi}{6}$ i	s :		
(a) 210°	(b) 180°	(c) 90°	(d) None of these
The value of $\tan 15^\circ + \cot 15$			
(a) 1		(c) 4	(d) - 4
The multiplicative inverse o	f -i is :	1	
(a) <i>i</i>	(b) <i>-i</i>	(c) $\frac{1}{i}$	(d) None of these
The value of $i^{n} + i^{n+1} + i^{n+2} + i^{$	i^{n+3} is where $n \in N$:		
(a) 1	(b) 2	(c) 0	(d) – 1
(a) (2,3,4)		(c) $(2,3,-4)$	(d) (-2,3,4)
		2	
(a) $x = y \Longrightarrow x^2 = y^2$			(d) $x \neq y \Rightarrow x^2 \neq y^2$
		x^2 - 1 and $g(x) = 1 - 3x$	are equal.
-			
	C		$X \cup Y (11) X \mid Y \subset X$
If $A = \cos^2 \theta + \sin^4 \theta$ for all	values of θ then Prov	e that $\frac{3}{4} \le A \le 1$.	
Evaluate $(1+i)^{6} + (1-i)^{3}$.			
	O	R	
Solve the inequality: $ 3-4x $	≥9,		
Show that the point A $(1, -$	1, 3.), B (2, -4, 5) and ((5, -13, 11) are collinea	ır
•	•		
	-		
(ii) $ x $ is equal to either	r or -r		
(ii) $ x $ is equal to ended			
	(a) $(-\infty, 0)$ The degree measure of $\frac{7\pi}{6}$ i (a) 210° The value of $\tan 15^\circ + \cot 15$ (a) 1 The multiplicative inverse o (a) <i>i</i> The value of $i^n + i^{n+1} + i^{n+2} + i^{n+2} + i^{n+2}$ (a) 1 The image of $(-2, 3, 4)$ in YZ (a) $(2, 3, 4)$ The inverse of $x^2 = y^2 \Rightarrow x^2$ (a) $x = y \Rightarrow x^2 = y^2$ Find the domain for which the For any natural number n, 22 If x and y are subsets of the If $A = \cos^2 \theta + \sin^4 \theta$ for all Evaluate $(1+i)^6 + (1-i)^3$. Solve the inequality: $ 3-4x $ Show that the point A $(1, -i)^3$.	The degree measure of $\frac{7\pi}{6}$ is : (a) 210° (b) 180° The value of $\tan 15^\circ + \cot 15^\circ$ is : (a) 1 (b) $\sqrt{3} - 1$ The multiplicative inverse of $-i$ is : (a) i (b) $-i$ The value of $i^n + i^{n+1} + i^{n+2} + i^{n+3}$ is where $n \in N$: (a) 1 (b) 2 The image of $(-2,3,4)$ in YZ – plane is : (a) $(2,3,4)$ (b) $(2, -3, 4)$ The inverse of $x^2 = y^2 \Rightarrow x = y$ is : (a) $x = y \Rightarrow x^2 = y^2$ (b) $x^2 = y^2 \Leftrightarrow x = y$ Find the domain for which the functions $f(x) = 2x$ For any natural number n, $2^{2n} - 1$ is divisible by3. If x and y are subsets of the universal set \bigcup the If $A = \cos^2 \theta + \sin^4 \theta$ for all values of θ then Prov Evaluate $(1+i)^6 + (1-i)^3$. Of Solve the inequality: $ 3-4x \ge 9$, Show that the point A $(1, -1, 3.)$, B $(2, -4, 5)$ and (c) Write the negation of following statement. (i) A leap years has 366 days.	The Range of $f(x) = - x $ is : (a) $(-\infty, 0)$ (b) R^+ (c) $(-\infty, \infty)$ The degree measure of $\frac{7\pi}{6}$ is : (a) 210° (b) 180° (c) 90° The value of $\tan 15^\circ + \cot 15^\circ$ is : (a) 1 (b) $\sqrt{3} - 1$ (c) 4 The multiplicative inverse of $-i$ is : (a) i (b) $-i$ (c) $\frac{1}{i}$ The value of $i^n + i^{n+1} + i^{n+2} + i^{n+3}$ is where $n \in N$: (a) 1 (b) 2 (c) 0 The image of $(-2, 3, 4)$ in YZ – plane is : (a) $(2, 3, 4)$ (b) $(2, -3, 4)$ (c) $(2, 3, -4)$ The inverse of $x^2 = y^2 \Rightarrow x = y$ is : (a) $x = y \Rightarrow x^2 = y^2$ (b) $x^2 = y^2 \Leftrightarrow x = y$ (c) $x^2 \neq y^2 \Rightarrow x \neq y$ Section – B Find the domain for which the functions $f(x) = 2x^2 - 1$ and $g(x) = 1 - 3x$. For any natural number n, $2^{2n} - 1$ is divisible by3. If x and y are subsets of the universal set \bigcup then show that :- (i) $Y \subset A$. If $A = \cos^2 \theta + \sin^4 \theta$ for all values of θ then Prove that $\frac{3}{4} \le A \le 1$. Evaluate $(1+i)^6 + (1-i)^3$. OR Solve the inequality: $ 3-4x \ge 9$, Show that the point A $(1, -1, 3)$, B $(2, -4, 5)$ and $(5, -13, 11)$ are collinear OR Write the negation of following statement. (i) A leap years has 366 days.

- Draw the venn diagrams for the following : (i) A' (ii) B-AQ.27
 - (iii) $(A \bigcup B)'$

(iv) *B*'

Q.28 Find the range of the following functions :- |r-4|

(i)
$$\frac{|x-4|}{x-4}$$
 (ii) $\sqrt{16-x^2}$

Q.29 Show that $2\sin^2 B + 4\cos(\alpha + \beta)\sin\alpha\sin\beta + \cos^2(\alpha + \beta) = \cos 2\alpha$.

OR

 $\tan \theta + \tan 2\theta + \sqrt{3} \tan \theta \tan 2\theta = \sqrt{3}$.

Q.30 Solve the given in equality and show the graph of the solution on number line. $\frac{x}{2} \ge \frac{(5x-2)}{3} - \frac{(7x-3)}{5}$.

OR

If A and B be the points (3,4,5) and (-1,3, -7) respectively, find the equation of the set of points P such that $PA^2 + PB^2 = K^2$ where K is constant.

Q.31 If
$$z_1, z_2, z_3$$
 are complex numbers s.t. $|z_1| = |z_2| = |z_3| = \left|\frac{1}{z_1} + \frac{1}{z_2} + \frac{1}{z_3}\right| = 1$, find the value of $|z_1 + z_2 + z_3|$.

OR

Find the value of K if for the complex number z_1 and z_2 . $|1 - \overline{z_1} z_2|^2 - |z_1 - z_2|^2 = K(|1 - |z_1|^2)(|1 - |z_2|^2)$.

Q.32 If the origin is the centroid of the triangle PQR with vertices P(2a, 2, 6), Q (-4, 3b, -10) and R (8, 14, 2c) then find the value of a,b,c.

OR

Find the modulus and the argument of the complex number $z = -\sqrt{3} + i$.

Section – D

- Q.33 In a survey of 60 people, it was found that 25 people read news paper H, 26 read news paper T, 26 read newspaper I, 9 read both H and I, 11 read both H and T, 8 read both T and I, 3 read all three newspaper find
 - (i) The No. of people who read at least one of the newspaper.
 - (ii) The No. of people who read exactly one news paper.

OR

In a survey of 200 students of a school, it was found that 120 study Maths, 90 study Physics and 70 study Chemistry, 40 study Maths and Physics, 30 study Physics and Chemistry. 50 study Chemistry and Maths and 20 none of these subjects. Find the number of students who study all the three subjects.

Q.34 Find the domain of the following functions :

(i)
$$f(x) = \frac{1}{\sqrt{|x| - x}}$$
 (ii) $f(x) = \frac{x^3 - x + 3}{x^2 - 1}$ (iii) $f(x) = \sqrt{a^2 - x^2}$

OR

If f and g are real functions such that $f(x) = x^2 + 7$ and g(x) = 3x + 5 then find :

(i)
$$f(3) + g(-5)$$
 (ii) $f(\frac{1}{2}) \times g(14)$ (iii) $f(t) \times -f(-2)$

- Q.35 If the imaginary part of $\frac{2z+1}{iz+1}$ is -2 then show that the locus of the point representing z in the argand plane is a straight line.
- Q.36 Prove that (n+1)(n+5) is a multiple of 3 by using the principle of mathematical induction for all $n \in N$. OR

Prove by induction that for all natural number n

$$\sin\alpha + \sin(\alpha + \beta) + \sin(\alpha + 2\beta) + \dots + \sin(\alpha + (n-1)\beta) = \frac{\sin\left(\alpha + \frac{n-1}{2}\beta\right)\sin\left(\frac{n\beta}{2}\right)}{\sin\left(\frac{\beta}{2}\right)}.$$

Roll. No.		Code No. 11/B	Business St./NLCS/65				
Half Yearly Examination 2019 – 2020							
Time: 3:00 Hrs.			M. M. 100				
Question No. 1 to 20 carry 1 Q.1 Material need is a need v							
(a) maintain econo	·	(b) social standar	rd				
(c) living		(d) none of the a					
	le Daily she does so	()	al satisfaction , identify the				
activity under different he	-	, let not peyenologie	aroutorion, actury inc				
(a) social	(b) business	(c) economic	(d) non-economic				
Q.3 The minimum number of							
(a) 7	(b) 5	(c) 2	(d) 3				
Q. 4 Application for approval of	()		(-)				
	Registrar of company		of India (d) state government				
Q.5 Sale of equity share to p	· · ·		(2)				
(a) Investment	(b) joint venture	(c) partnership	(d) disinvestment				
Q.6 Public sector does not w		(0)	(1) 10111 00111				
	(b) social equality	(c) profit earning	(d) self Reliance				
	.,	. ,	e towards claim paid, which				
concept is highlighted in	-		•				
(a) subrogation	(b) mitigation	(c) indemnity	(d) contribution				
Q.8 Overdraft facility is availa	ble on?						
(a) recurring depo	osit	(b) current account deposit					
(c) fixed deposit	(d) saving account deposits		nt deposits				
Q.9 ATM facility to withdrawa	al money is an exam	ple of?					
(a) B to C Comm	nerce	(b) B to B Comm	erce				
(c) B to E Comm	ierce	(d) C to C Comm	erce				
Q.10 Creating blogs to form co	onsumers forum or p	ressure group is an o	example of?				
(a) B to C	(b) B to B comme	rce (c) C to C	(d) B to E commerce				
Q.11 Which of the broad categories	ories of industries co	overs oil refinery and	d sugar mills?				
(a) Primary	(b) secondary	(c) tertiary (d)	none of above				
Q.12 Which of the following is	not a part of auxiliari	es to trade?					
(a) transportation	(b) warehousing	(c) packaging	(d) advertising				
Q.13 Partnership business car	Q.13 Partnership business can be registered at the time of?						
(a) formation	(b) anytime	(c) both a and b	(d) none of the above				

Q.14	As per Companies Act the minimum subscription should be?				
	(a) 91% of capital (b) 90% of capital				
	(c) 91% of issued capital (d) 90% of issued capital				
Q.15	Indian economy has?				
	(a) private Owned (b) government owned (c) none of the above (d) both a a	and b			
Q.16	Statutory corporation are accountable to the?				
	(a) accountable to public (b) accountable to Parliament				
	(c) accountable to ministry (d) accountable to Parliament and concern ministry				
Q.17	The time period for a fixed deposit can range from?				
	(a) 7 days to 10 years (b) 1 year to 10years (c) 1-5 years (d) more than one yea	rs			
Q.18	This is not a nationalised bank?				
	(a) SBI (b) ICICI (c) PNB (d) IBO				
Q.19	The payment mechanism typical to e-business?				
	(a) COD (b) e cash c) Cheque (d) credit or debit card				
Q.20	It is not an application of e-business?				
	(a) online bidding (b) online procurement (c) online trading (d) contract R & D				
Q.21	In all types of insurance(life, fire and marine) insured must have insurable interest both at the	e			
	time of insurance and at the time of loss. comment?	3			
	OR				
	Akhil insured his factory for rupees 40,00,000 against fire. due to fire, he suffered a loss of				
	rupees 28,00,000. how much amount we can recover from the insurance company justify you	Jr			
	answers?	-			
Q.22		3			
Q.23	List the name of some Enterprises under the public sector and classify them?	3			
Q.24					
	with reason.?	3			
Q.25	Name and explain two characteristics of business which involve possibility of loss?	3			
Q.26	Disinvestment brought in many international brands in the Indian market as a result consume				
	enjoy the variety but local producers faced tough competition. discuss the role of multinationa				
	companies with reference to Indian market?	4			
OR De control Oconomica de la consiste d'acceter estre et in the conserve and best but					
	Recently Central Government allowed foreign direct investment in the consumer products but				
	political parties most and domestic manufacturer opposed it aggressively .what is your opinic this issue.?	4			

Q.27 Reena garments limited has a loan of rupees 25 lakh to pay. they are short of funds so they are trying to find ways to arrange funds. their manager suggested to claim for Insurance Company against Stock lost due to fire in the warehouse .he actually meant that they can put their Warehouse on fire and claim from Insurance Company against stock Insured ,that can use the claim money to pay loan.

A. will the company receive claim if the Surveyor from insurance company comes to know the real cause of Fire?

- B. what values did company ignore while planning to arrange money from false claim? 1+3=4
- Q.28 Ethical concern and lake of confidentiality may pose threat to Electronic mode of doing business . do you think these reasons are unavoidable and may cause irreparable damage to companies? 4
- Q.29 A. Specify the basic criteria of judging whether an activity is an economic and non economic in nature?
 - B. Discuss the followings-1. Market standing 2. market potential 3. speculative risk 4. product 5. Market

OR

" It is an enterprise engaged in the producing and distribution of goods for sale in market or rendering services for a price" identify the concept in the above statement and explain its characteristics? 1+4=5

- Q.30 "Corporation is the act persons voluntarily United , for utilising reciprocally their own forces ,resources Or both under their mutual management to their common profit "comments and explain any four limitation of this? 1+4=5
- Q.31 "An artificial person, invisible, intangible and existing only in the eyes of law ".explain the concept identify in above case and give Five advantages of it? 1+4=5

OR

A voluntary association of individuals for profit, having a capital divided in to transferable shares, the ownership of which is the condition of membership " identify the concept given in above statement and explain any four disadvantages of it? 1+4=5

- Q.32 Give suggestions in below cases -
 - 1. Statement in lieu of prospectus can be field by a public company going for a public issue.
 - 2. If a company is registered on the basis of fictitious names, its incorporation is invalid.
 - 3. Every company must file articles of Association
 - 4. If company suffer heavy losses and its assets are not enough to pay off It's liabilities ,the balance can be recovered from the private assets of its member.
 - 5. A provisional contract is signed by promoters before the incorporation of the company.
 - 6. Experts who help Promotors in the Promotion of a company are also called promoters? 1×6=6

Q.33 MNC establish themselves in developing countries to enjoy Huge profit by selling consumer goods or luxury items. They start business by offering wide variety of Goods At prices cheaper

than local Retailers Offer .But ones they are established they increased prices.

A. State the values the government of a developing countries ignores while allowing MNCs to Established in their country.?

B. what Values do the MNCs violate?

Public enterprises or established to achieve the goal of Economic and social development of the country .they are Managed and controlled by Central or State government Through ministers Or government officials. many times personal interests of ministers Influences the policy Formulation and running of the Enterprise. Even the big business houses use Their influence and get to policy formulated in their favour. State the values ministers Or Government ignore in the above case.? $1 \times 6 = 6$

Q.34 Explain followings-

1. RTGS	2. NEFT	3. Cash deposit			2+2+2=6
		OR			
Explain following principles of Insurance -				2+2+2=6	
A. Utmost goo	d faith	B. Subrogation	C.	Contribution	
PROJECT + O	RAL →				20

Roll. No.

code No. 11/Political Science/NLCS/10

Half Yearly Examination 2019 – 2020

Time: 3:00 Hrs.

M. M. 100

- All questions are compulsory.
- Question no. 1 to 20 are of one mark each.
- Question no. 21 to 23 are of 2 marks each.
- Question no. 24 to 27 are of 4 marks each.
- Question no. 28 is picture based carry 5 marks
- Question no. 29 and 30 are passage based questions and these question are of 5 marks each.
- Question no. 31 is map based carry 5 marks.
- Question no. 32 to 34 are of six marks each and have internal choice.
- Q.1 What is meant by term 'Constitution'?
- Q.2 what do you mean by universal Franchise?
- Q.3 Write any two features of the Indians constitution.
- Q.4 What are fundamental rights?
- Q.5 Under which articles the Fundamental rights have been mentioned?
- Q.6 Who can suspend the Fundamental rights in India?
- Q.7 What is beggar?
- Q.8 What is meant by direct democracy?
- Q.9 Explain the composition of executive in India.
- Q.10 What is the main function of the executive?
- Q.11 What are the three organs of the government?
- Q.12 What do you know by bureaucracy?
- Q.13 Define political theory.
- Q.14 What is the origin of the word politics?
- Q.15 Who was the Nelson Mandela?
- Q.16 Write any two features of equality.
- Q.17 What is meant by term 'equal opportunity for all.'?
- Q.18 What is socialism?
- Q.19 What is meant by term 'feminism'?
- Q.20 In which book plato gave his theory of justice?
- Q.21 Which two features did India adopt from the American constitution?
- Q.22 What do you know about Habeas Corpus?
- Q.23 State the importance of political theory.
- Q.24 Mention the six freedoms guaranteed under articles 19 to 22 of Indian constitution.
- Q.25 Describe any four function of election commission

- Q.26 Distinguish between negative liberty and positive liberty.
- Q.27 What is social justice? Discuss three main features of social justice.
- Q.28 Give the answer through this picture:-
 - (i) Why is universal adult franchise compared to an elephant?
 - (ii) Is it unmanageable?
 - (iii) Is it like the story in which everyone describes the elephant only by its part?
- Q.29 Read the following passage and answer the questions that follow:

Positive liberty recognises that one can be free only in society (not out side it) and hence tries to make that society such that it enables the development of the individual whereas negative liberty is only concerned with the inviolable area of non-interference and not with the conditions in society, outside this area, as such. Of course, negative liberty would like to expand this minimum area as much as is possible keeping in mind, however, the stability of society. Generally they both go together and support each other, but it can happen that tyrants justify their rule by invoking arguments of positive liberty.

- (i) What is meant by positive liberty?
- (ii) What is the concept of negative liberty?
- (iii) According to the passage what negative statement are given against positive liberty?
- Q.30 Read the following passage and answer the questions that follow: "They say that to do injustice is, by nature, good; to suffer injustice, evil; but that the evil is greater than the good. And so when men have both done and suffered injustice and have had experience of both, not being able to avoid the one and obtain the other, they think they had batter agree among themselves to have neither; hence there arise laws and mutual covenants; and that which is ordained by law is termed by the lawful and just."
 - (a) Who is the writer of book "The Republic"?
 - (b) When is the law made?
 - (c) Which is ordained by law is termed by the lawful and just? Why?
- Q.31 In the given political outline map of World, five Countries are marked as (A), (B), (C), (D) and (E). identify them on the basis of the information given below.
 - (A) Country related to Aung San Suu kyi.
 - (B) Country related to J.S. Mill.
 - (C) Country related to Nelson Mandela.
 - (D) Country related to Bal Gangadhar Tilak.
 - (E) Country related to Subhas Chandra Bose.
- Q.32 Briefly describe the various powers of the president of India?

OR

How is the prime minister of India appointed? What are the main powers of the prime minister of India?

Q.33 Discuss the main features of the modern view of political theory?

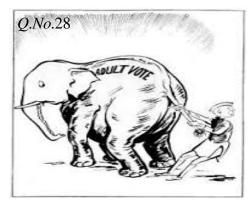
OR

Discuss the scope of Political Theory?

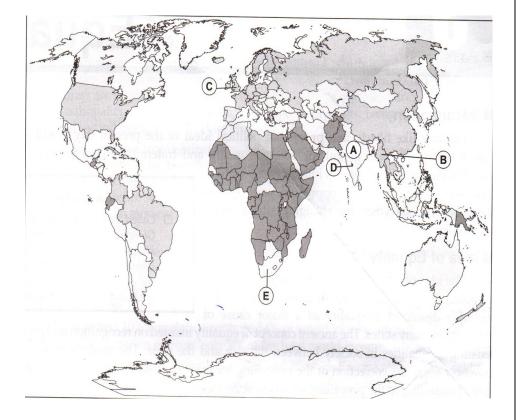
Q.34 What is equality? Describe the different kinds of equality?

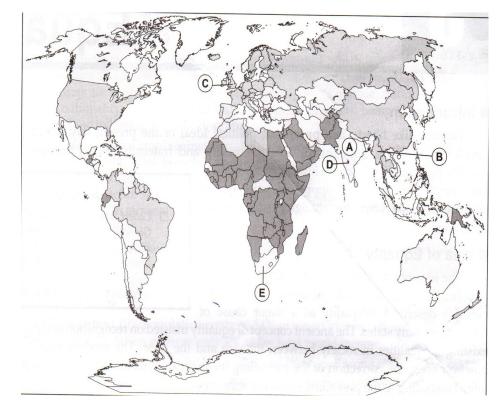
OR

Distinguish between political equality & social Equality?



Q. 31 Roll No. _____





Half yearly Examination 2019 –2020

Time: 1:30 Hrs.

M. M. 30

5

Roll, No.

Note: Each Question Carry 5 Marks.

- Q.1 Where have the prehistoric rock paintings been found in India? 5
- Q.2 Explain the locations of the main sites of IndusValley civilization have any historical importancein the field of Art. 5

OR

Is the mother Goddess an idol? Explain it with justification.

- Q.3 Describe the historical as well as artistic aspects of the idol "Dancing girl".5
- Q.4 Explain the "Buddha Head of Taxila".
- Q.5 Explain the sculpture of Jain Tirthankara. 5

OR

'Yaksnini of Didarganj is a Master piece'. Do you agree? Justify your views

Q.6 What is Mara Vijay? Describe the compositional arrangement of this relief.5

Code No.11/Fine Arts/NLCS/10

Half yearly Examination 2019 –2020

	1111 yearry Examination 2019 - 2	020
-	e: 1:30 Hrs. : Each Question Carry 5 Marks.	M. M. 30
Q.1	Where have the prehistoric rock paintings	s been
	found in India?	5
Q.2	Explain the locations of the main sites of	Indus
	Valley civilization have any historical imp	ortance
	in the field of Art.	5
	OR	
	Is the mother Goddess an idol? Explain it	t with
	justification.	
Q.3	Describe the historical as well as artistic	aspects
	of the idol "Dancing girl".	5
Q.4	Explain the "Buddha Head of Taxila".	5
Q.5	Explain the sculpture of Jain Tirthankara.	5
	OR	
	'Yaksnini of Didarganj is a Master piece'.	Do you
	agree? Justify your views	
Q.6	What is Mara Vijay? Describe the compo	sitional
	arrangement of this relief.	5
