Everwin Matric. Hr. Sec. School

04.12.19 Comprehensive Revision Programme-2 Marks:40

Std:XI [A-D] FN Mathematics Time:1.15 Hrs

I. Choose the best answer: 10x1=10

1. 1+3+5+7+.....+17 is equal to _____.

a) 101 b) 81 c) 71 d) 61

2. The number of rectangles that a chessboard has _____.

a) 81 b) 9^9 c) 1296 d) 6561

3. In ${}_{2n}C_3 : {}_nC_3 = 11.1$ then n is _____.

a) 5 b) 6 c) 7 d) 11

4. Number of sides of a polygon having 44 diagonals is _____.

a) 4 b) 4! c) 11 d) 22

5. The product of r consecutive +ve integers is divisible by _____.

a) r! b) (r-1)! c) (r+1)! d) r^r

6. There are 10 points in a plane and 4 of them are collinear. The number of straight lines joining any 2 points is _____.

a) 45 b) 40 c) 39 d) 38

7. The number of 5 digit numbers all digits which are odd is ____.

a) 25 b) 5^5 c) 5^6 d) 625

8. The number of ways of arranging 'n' unlike objects is _____.

a) n! b) (n+1)! c) (n-1)! d) 2n!

9.If ${}_nC_4$, ${}_nC_5$, ${}_nC_6$ are in A.P the value of n can be _____.

a) 14 b) 11 c) 9 d) 5

10. The number of five digit telephone numbers having at least one of their digits repeated is _____.

a) 90,000 b) 10,000 c) 30,240 d) 69,760

II. Answer any 3 of the following: 3x2=6

11. Find the value of $\frac{12!}{9! \times 5!}$

12. Find the number of ways of arranging the letters of the word "BANANA".

13. Find the value of ${}_{15}C_{13}$ and ${}_{100}C_{99}$.

14. If ${}_nP_r = 11880$ and ${}_nC_r = 495$ find the value of r.

III. Answer any 3 of the following: 3x3=9

15. How many triangles can be formed by 15 points in which 7 of them lie on one line and the remaining 8 on another parallel line?

16. Find the rank of the word DANGER.

17. If ${}_{10}P_{r-1} = 2 \times {}_6P_r$. Find r.

18. How many numbers are there between 100 and 500 with the digits 0,1,2,3,4,5? If repetition of digits is not allowed.

IV. Answer any 3 of the following: 3x5=15

19. Find the sum of all 4-digit numbers that can be formed using digits 0,2,5,7,8 without repetition?

20. Prove that ${}_{35}C_5 + \sum_{r=0}^{4} (39 - 4)\ C_4 = {}_{40}C_5$

21. Using Mathematical induction $\frac{1}{2.5} + \frac{1}{5.8} + \ldots\ldots + \frac{1}{(3n-1)(3n+2)} = \frac{n}{6n+4}$

22. Using the mathematical induction, show that $x^{2n}-y^{2n}$ is divisible by x+y.

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04.12.19 Comprehensive Revision Programme-2 Marks:40

Std:XI[A,B][AN] Chemistry (Part-II) Time:1.15mins

I. Choose the correct answer: 1x5=5

1. Match the List I with List II and select the correct answer using the code given below the lists.

List I	List II
A. Gypsum	1. Bleaching powder
B. Plaster of Paris	2. Chlorophyll
C. Slaked lime	3. Statues
D. Magnesium	4. Satin Spar

2. The correct thermodynamic condition for the spontaneous reaction at all temperature is _____.

a. $\Delta H<0$ and $\Delta S<0$ b. $\Delta H<0$ and $\Delta S<0$

c. $\Delta H>0$ and $\Delta S=0$ d. $\Delta H>0$ and $\Delta S>0$

3. Pick out the true statement

(i) q and w are path functions

(ii) q+w is a state function

a. only (i) b. only (ii)

c. Both (i) and (ii) d. Both are incorrect statements

4. Assertion: Critical temperature of CO_2 is304K, it can be liquefied above 304K.

Reason: For a given mass of gas, Volume is to directly Proportional to pressure at const temperature.

a. both assertion and reason are true and reason is the correct explanation of assertion.

b. both assertion and reason are true but reason is not the correct explanation of assertion.

c. assertion is true but reason is false.

d. both assertion and reason are false.

5. If temperature and volume of an ideal gas is increased to twice its values, the initial pressure P becomes

a. 4P b. 2P c. P D. 3P

II. Answer the following any (4): 4x2=8

6. Give the expressions of critical constants.

7. Give the relation between enthalpy (H) and internal energy (U).

8. Write balanced Chemical equation for the following processes.

a. heating calcium in oxygen.

b. heating calcium oxide with carbon.

9. How Plaster of Paris is prepared.

10. State Avogadro's Law.

11. State third law of thermodynamics.

III. Answer the following any 4: 4x3=12

12. Explain different method used for liquefaction of gases.

13. List the Characteristics of Gibbs free energy.

14. Write a short note on the consequence of Boyles Law.

15. Discuss briefly the similarities between beryllium and aluminium.

16. Define entropy of vapourisation.

IV. Answer the following: 5x3=15

17. a) i) What is soda ash? (2M)

ii) Write comparison between Lithium with other elements of the group. (3M) (or)

b) i) Why $I.E_1$ Value of alkaline earth metals are higher than that of alkali metals? (3M)

ii) Write uses of Plaster of Paris. (2M)

18. i) Derive the values of Critical constants in terms of vanderwoals constants. (or)

ii) Can a vanderwaals gas with a=0 be liquefied? Explain. (3M)
Distinguish between diffusion and effusion.

19. i) State the various statements of second law of thermodynamics.
(or)

ii) Suggest and explain an indirect method. To calculate Lattice enthalpy of Sodium Chloride Crystal.

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04.12.19 Comprehensive Revision Programme-2 Marks:40

Std:XI[C,D] AN Physics (Part-II) Time:1.15mins

I. Choose the correct answer: 5x1=5

1. An object is dropped in an unknown planet from height 50m, it reaches the ground in 2s. The acceleration due to gravity in this unknown planet is _____.

   a. $g=20m/s^2$ b. $g=25m/s^2$ c. $g=15m/s^2$ d. $g=30m/s^2$

2. If an object is thrown vertically up with the initial speed u from the ground, then the time taken by the object to return back to ground is _____.

   a. $\frac{u^2}{2g}$ b. $\frac{u^2}{g}$ c. $\frac{u}{2g}$ d. $\frac{2u}{g}$

3. A particle is moving with a constant velocity along a line parallel to positive x axis. The magnitude of its angular momentum with respect to the origin is _____.

   a. zero b. increasing with x

   c. decreasing with x d. remaining constant

4. A rigid body rotates with an angular momentum L of its kinetic energy is halved the angular momentum becomes_____.

   a. L b. L/2 c. L d. $\frac{L}{\sqrt{2}}$

5. A couple produces _____.

   a. pure rotation b. pure translation

   c. rotation and transaction d. no motion

II. Answer the Following (any 5) 5x2=10

6. Define the term degrees of freedom.
7. Define mean free path and write down its expression.
8. Define angular displacement and angular velocity.
9. Two vectors are given as $\vec{r} = 2\hat{\imath} + 3\hat{\jmath} + 5\hat{k}$ and$\vec{F} = 3\hat{\imath} - 2\hat{\jmath} + 4\hat{k}$. Find the result and Vector$\vec{T} = \vec{r}x\vec{F}$.
10. A particle moves along the x-axis in such a way. That its coordinates x various with time't' according to the equation=2-5t+6t^2. What is the initial velocity of the particle?
11. Define momentum?

II. Answer the Following (any 5) 5x3=15

12. Write any 5 Properties of Scalar products.
13. Explain in detail the Maxwell Boltzmann distribution function.
14. What is the relation between average kinetic energy and pressure?
15. Write down the postulates of Kinetic theory of gases.
16. State and prove parallel axis theorem.
17. Derive centripetal acceleration.

IV. Answer in detail: 2x5=10

18. Describe the total degrees of freedom for monoatomic molecule, diatomic molecule and triatomic molecule.

    (or)

    Derive the equations of motion for a particle

    a. falling vertically b. projected vertically

19. Derive the expression for moment of inertia of a uniform ring about an axis passing through the centre and perpendicular to the plane.

    (or)

    Discuss rolling on inclined plane and arrive at the expression for the acceleration.

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04.12.19 Comprehensive Revision Programme-2 Marks:40

Std:XI [H,I] FN ECONOMICS (Part-II) Time:1.15 hrs

I. Choose the correct answer: 5x1=5

1. Economic infrastructure is the _____ system which helps in production and distribution.
   a. distribution b. support c. transport
2. The weakness of Indian Economy is ____.
   a. Mixed economy b. Economic disparities c. Urbanisation
3. Increase in demand is caused by _____.
   a. Higher subsidy b. increase in tax c. Increase in demand
4. _____ is a powerful factor that influence demand.
   a. Income b. Expenses c. Price
5. The basic problem studying in Economics is _____.
   a. Strategy to meet all our wants b. Scarcity
   c. unlimited wants

II. Answer the following (any 5): 5x2=10

1. Define Positive economics.
2. Distinguish between goods and services.
3. Write the formula of consumer surplus.
4. Define Utility.
5. Write the short note on natural resources.
6. Give a short note on Sen's choice of Techniques.

III. Answer the following (any 5): 5x3=15

1. Elucidate different features of services.
2. What are the crucial decisions involving what is produced?
3. Describe the feature of human wants.
4. Explain the concept of consumer's equilibrium with a diagram.
5. Define Economic Development.
6. Write a short note on welfare economics given by Amartya Sen.

IV. Answer the following (any 2): 2x5=10

1. Write a brief note on the Gandhi an economic ideas.
2. Explain basic problems of the economy with the help of Production possibility curve.
3. Explain the law of demand and its exceptions.

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04.12.19 Comprehensive Revision Programme-2 Marks:40

Std:XI [E,F,G] AN ECONOMICS (Part-III) Time:1.15 hrs

I. Choose the correct answer: 5x1=5

1. Cobb-Douglas production function assumes
   a. Dimishing returns to scale b. Increase returns to scale
   c. Constant returns to scale
2. A production function measures the relation between _____.
   a. the quantity of inputs and the quantity of output.
   b. the quantity of inputs and the quantity of output.
   c. the quantity of inputs.
3. Division of labour means _____.
   a. Dividing labours into age groups.
   b. Dividing labours into groups.
   c. Dividing the process of production
4. Perfect competition assumes _____.
   a. Producer goods b. Homogeneous goods c. luxury goods
5. Group equilibrium is analysis in _____.
   a. Monopoly b. Monopolistic competition c. Duopoly

II. Answer the following (any 5) 5x2=10

1. What is Iso-Cost line?
2. What are the reasons for upward sloping supply curve?
3. What are the three phases of Returns to scale?
4. What is selling cost?
5. Point out the essential features of pure competitions.
6. Write any two features of a market.

III. Answer the following (any 5) 5x3=15

1. State the Cobb Douglas production function.
2. What are the functions of Entrepreneur?
3. What are the factors governing elasticity of supply?
4. State the meaning of selling cost with an example.
5. Mention the similarities between perfect competition and Monopolistic competition.
6. State the features of duopoly.

IV. Answer the following (any 2): 2x5=10

1. Explain price and output determination under monopolistic competition with help of diagram.
2. Elucidate the Laws of returns to scale. Illustrate.
3. Examine the Law of Variable proportions with the help of diagram.

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04.12.19 Comprehensive Revision Programme-2 Marks: 40

Std: XI (H,I) AN English Time:1.15 hrs

I. Choose the synonym of the underlined words in the following: 16x½=8

1. She said her morning prayer in a monotonous sing-song way.
   a) changing b) pleasant c) unpleasant d) boring
2. The greatest disadvantage for me was my loss of appetite.
   a) agony b) hunger c) poverty d) pain

Choose the antonym of the underlined words in the following sentence:

3. An expanse of pure white serenity.
   a) simplicity b) anxiety c) aburolity d) stupidity
4. He remembers the name of the hotel where he had his vice meal.
   a) good b) pretty c) goal d) bad

Fill in the blanks using the right choice given in brackets:

5. The _____ guarded the king's palace in the _____(knight/night)
6. Choose the correct combination for the compound word 'sitting bench'.
   a) gerund + noun b) noun + adjective c) noun + verb
   d) noun + gerund
7. Fill in the blanks with appropriate determiner:
   How do you feel about your new job?
   Do you have as _____ responsibilities as you used to?
   a) many b) much c) some d) few
8. Form two derivatives for the given word 'friend'

Fill in the blanks with the suitable verb form:

9. Rita _____ (go) to church every Sunday.
10. Choose the correct expansion of the abbreviations: GPO
    a) Government Powered Organization
    b) Government and People's Organization
    c) General Post Office
    d) General People's Organization

Fill in the blanks with the suitable modal verb:

11. We _____ help the needy.
12. Fill in the blanks with the suitable preposition:
    I am afraid I can't agree _____ you.
    a) of b) with c) at d) in
13. Choose the clipped form of luncheon.
    a) cheon b) lun c) lunch d) nunch
14. Choose the right combination for the blended word 'Heliport'
    a) helicopter + port b) helicopter + airport
    c) heli + airport d) heli + port
15. Fill in the blanks with the verb in agreement with its subject.
    Neither the boy nor the girl _____ (have/has) a good report.
16. Fill in the blanks changing the word from the options below:
    One who derives pleasure from other's pain.
    a) Polygot b) Sadist c) Optimist d) Thespian

II. Do as directed: (Any two) 2x2=4

17. My grandfather built the house in 1990. (Change the voice)
18. He did not lock the door. The Jewelleries were stolen
    (Combine the sentences using 'If' clause)
19. Ram lost the match. He decided to quit the captaincy
    (Combine the sentence to a simple sentence)

III. Read the following sets of the poetic lines and answer the questions below: 6x1=6

"Well, ego it might be pleased enough
But zealous athletes play so rough"

20. What pleases the ego?
21. Why are athletes often rough during play?

"If this belief from heaven be sent
If such be Nature's holy plan"

22. What does 'heaven' refer to?
23. Why does the poet call it 'holy'?

How to laugh, for my laugh in the mirror
shows only my teeth like a snake's bara fangs!

24. What does 'fangs' mean?
25. Write down the alliteration.

IV. Explain any one of the following lines with reference to the context: 1x3=3

26. "Once upon a time, son
They used to laugh with their hearts"
27. "My soul is true thanksgiving speaks
For this modest of Physiques"
28. "I heard a thousand blended notes
While in a grove I sate reclined"

V. Answer any two of the following: 2x3=6

29. What is the commonest type of forgetfulness, according to Lynd?
30. According to Mary Kom, what was the reason for her losing in the finals?
31. What was the daily routine of the grandmother at home?

VI. Write a paragraph of the following in about 150 words: (5)

32. Lack of adequate financial resources and sponsorhips often affect sports persons. How is this evident from Mary Kom's life? (or)
33. Bring out the poet William Wordsworth's thoughts, while comparing Nature with human behavior.

VII. Write a paragraph of the following in about 150 words: (5)

34. 'Seeing is believing' How is this humorously disproved in the story 'A shot in the dark'? Bring out the irony in the situation. (or)
35. What does the humour in the play 'The First Patient' depend on?

VIII. Answer any one the following question: 1x3=3

36. Describe the process of making bread omelette.

(or)

37. You are a reporter in a leading Newspaper. You witnessed the Republic Day Celebration, at Chennai. Write a report about the programme in about 100 words.

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04.12.19 Comprehensive Revision Programme-2 Marks:40

Std:XI[E-G] FN Commerce (Part-II) Time:1.15mins

I. Choose the correct answer: 5x1=5

1. Aviation industry's GST rate is from ____ to _____.
   a. 2 to 3% b. 3 to 4 % c. 5 to 6% d. 6 to 9%
2. Income tax rate for 5,00,000 to 10,00,000 is _____%.
   a. Nil b. 5% c. 20% d. 30%
3. SAARC was founded at _____.
   a. Srilanka b. Nepal c. Bangladesh d. Afghanistan
4. MRI stands for _____.
   a. Microscope Reasoning Image scanner
   b. Resonance Imaging Scanner
   c. Magnified Refined Image Scanner
   d. Magnetic Reasoning Imaging Scanner
5. _____ transport would see pods on containers.
   a. Hyper loop b. Conveyor c. Pipeline d. Bullet train

II. Answer the following: (any 5) 5x2=10

6. What do you mean by goods and services tax?
7. Define the term 'assesses'.
8. What is SAARC?
9. Who are the mercantile agents?
10. Define Transport.
11. Define Indirect tax.

III. Answer the following: (any 5) 5x3=15

12. Briefly explain the functions of GST Council.
13. Write any three demerits of UGST.
14. How is the value of SDR determined currently?
15. What is the primary motive of establishment of WTO?
16. What are the services rendered by wholesalers to manufactures?
17. What is charter party?

IV. Answer the following: (any 2) 2x5=10

18. What are the characteristics of retailers?
19. Explain how far India has benefitted from IMF.
20. Define Tax. Explain the term direct tax and indirect tax with an example.