Atomic Energy Education Society

Periodic Test II (Session : 2019-20)

Class : IX Time: 3 hours
Subject: English Marks: 80

General Instructions

1.This question paper has three sections.

Section- A	*Reading*	*20 Marks*
Section -B	*Writing &Grammar*	*30 Marks*
Section -C	*Literature*	*30 Marks*

2.Attempt all the questions.

3. All the answers must be correctly numbered as in the question paper and written in the answer sheet. Do not copy the questions.

4.Attempt all the questions in each section before going on to the next section.

SECTION A-(READING) (20 MARKS)

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

(1) Education of a child starts from the family and the mother is the first teacher. But irony in India is that although the deity of education is a female i.e., Goddess Saraswati according to the Hinduism, innumerable number of women are illiterate. They do not remain uneducated by their own wish but they are forbidden from receiving education because of the patriarchal system in our society.

(2) Right from Early Vedic Period people have been celebrating the birth of a son but in those days daughters born into a family were not neglected but were educated properly. However, the scene changed during the Later Vedic Age and daughters were considered a social burden. Only the girls belonging to upper class families enjoyed the right of education and got proper nourishment. In Medieval period girls in Muslim household were taught at their homes while Hindu girls enjoyed the privilege of getting primary education along with the boys in schools. The prevalence of child marriage was excessively practiced. However in the 19th century many social reformers like Raja Ram Mohan Roy, Sir Syed Ahmed Khan, Annie Besant, Phule etc came forward for the emancipation of women in India. Especially Raja Ram Mohan Roy advocated female education.

(3) There has been tremendous progress in every field but unfortunately still the girls are neglected. In most of the families the birth of a girl child is not desired, if accepted they are thought inferior to boys and their education is not considered important because it seems wastage of money to most of the parents as they would be compelled to spend a heavy amount on their dowry. So the female literacy rate is unsatisfactory and it has a direct impact upon the overall development of a nation and its population growth.

(4) If all women are educated, then all problems like female infanticide, dowry, female suicides, domestic battering, malnutrition of women, child marriage and other related atrocities would vanish from India. If they are financially strong they will take proper care of their children and provide them with good education.

On the basis of your understanding of the above passage answer the following questions with the help of the given options. (1x8=8)

(a) Women are not allowed to receive education in India because-----

(i) they do not wish to be educated

(ii) they don't get enough time from household chores to study

(iii) the patriarchal system of society does not allow them

(iv) schools and colleges make discrimination among boys and girls

(b) Daughters in the Later Vedic Age were considered as ------

(i) a social burden

(ii) Goddess Lakshmi

(iii) pivot of the family

(iv) one of the members of the family

(c) During the medieval period the practice of------- was excessively prevalent.

(i) sati system

(ii) child marriage

(iii) devadasi system

(iv) dowry system

(d) Some reformers like Raja Ram Mohan Roy, Phule etc advocated-------

(i) education for all the children

(ii) male education

(iii) female education

(iv) co -education

(e) In most families in India, girls are still --------

(i) considered superior to boys

(ii) given more facilities to get education

(iii) neglected and confined to home

(iv) allowed to enjoy all freedom

(f) Most of the parents think that educating a girl ------

(i) is a wastage of money.

(ii) is worth achievement there by.

(iii) is to spoil the fabric of society .

(iv) is equivalent to displace God.

(g) The impact of literacy rate is that ------

(i) national economy is going in deficit.

(ii) the overall development of the nation has been affected negatively.

(iii) children are going astray.

(iv) many superstitious rituals have crept into society.

(h) A word from the passage(para 4) which means the same as 'cruelties' is

(i) suicides

(ii) vanish

(iii) malnutrition

(iv) atrocities

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Q.2. Read the following passage given below carefully:

Brain Drain: Its negative impact

(1) When highly qualified experts like scientists, engineers and trained persons migrate from under developed countries and settle down in advanced countries, their migration is called 'Brain Drain'. The problem is not peculiar to India alone. It is being faced by almost all the developing countries of the world. Brain drain results in direct loss to the underdeveloped and poor countries which train these experts at a great cost. When these experts migrate to advanced countries, such countries stand to gain because they get the services of the experts without having had to spend anything on their training. According to a UNO report, thousands of experts migrate from backward countries like India to highly advanced countries like the USA, UK, Canada, Germany etc. The USA has been the biggest gainer from the brain drain in India.

(2) There are a number of factors responsible for brain drain in India. First of all, India lacks job opportunities. When after completing higher studies, people do not get any employment in India, they start looking forward to advanced countries for jobs. Secondly, we do not recognise talent in our people. Thirdly, India lacks facilities for advanced research. Most of the students who go for higher research do not return to India. They are offered lucrative jobs so that they may stay on in advanced countries and give these countries the benefit of their research. Fourthly, advanced countries like the USA, Britain, Canada and Germany, offer to experts a much higher standard of living than what they can get in developing countries like India. Moreover, in advanced countries, one can earn while learning.

(3) India is endowed with vast natural resources like oil, gas, coal, iron ore, diamond etc. There is no doubt that if these natural resources are exploited in full, India can become one of the developed countries of the world. The Indian experts, whom we lose every year, can stay on in India and help in the development and exploitation of natural resources. Even those experts who have already settled in foreign countries could be lured back to India so that they can help India to become a great power in the world. All the doctors, scientists and engineers should realise that they owe some duty to their country. One country spends lakhs of rupees for their training. They should not betray their country by serving foreign countries. They should have a feeling of gratitude for their country.

Q 2.1 Answer the following questions :(2X4=8)

(1) What is brain drain?

(2) What are the main reasons of this problem in India?

(3) What should all the doctors, engineers and scientists realize?

(4) Which countries do people generally prefer to migrate to as mentioned in the passage?

Q 2.2 Choose the most appropriate option: (1X4=4)

1) Which word in the passage (para-1) also means 'strange'?
(a) eliminated (b) migration (c) peculiar (d) drain

2) An antonym of puny as used in paragraph 3 is -------
(a) vast (b) lured (c) settled (d) exploitation

(3) --------- also means 'to ditch' (paragraph 3)
(a) owe (b) scare (c) betray (d) lurked

(4) Find out the synonym of 'gainful or profitable' from the passage (paragraph-2)
(a) frugal (b) recognise (c) stipend (d) lucrative

SECTION B – WRITING AND GRAMMAR (30 MARKS)

Q3. In today's age of stress and anxiety, the children need to understand the importance of sleep, meditation and yoga over social networking and the use of the cell phone. Write an article of 150 words on 'Concentration and Composure' the need of the hour.

OR

Two of your very good friends quarrelled over a very ordinary matter during lunch break. You intervened to sort out the quarrel, but they did not listen to you. You felt very sad about that. At home, in the evening you decided to record your feelings in your diary in about 100-150 words. You are Anjali / Ashish. Record your feelings. **(8 Marks)**

Q4. Develop the following outline into a story in 150-200 words. Give a suitable title to your story. (10 Marks)

Train - over-crowded-next stop an hour ahead-weather hot and sultry-occupants cramped-train stopped midway-announcement of a bomb-all scared-began to pray-checking of luggage-nothing found-hoax call-anxiety ends-journey resumes

Q5. Complete the passage given below with the help of the options that follow:

(Any four) (1X4=4)

At my new school, I presented (A)-------- before the Principal (B) ---------- admission. She (C)---------- me a good look. Having been so long without proper food, a bath and clean clothes, I did not (D)---------- a good impression (E)--------- her.

A	(a) me	(b) myself	(c)mine	(d) my
B	(a) for	(b) with	(c)on	(d) in
C	(a) give	(b) gives	(c)gave	(d) given
D	(a) make	(b) made	(c)makes	(d) making
E	(a) with	(b) without	(c)in	(d) on

Q6. In the following passage one word has been omitted in each line. Write the missing word, in **any four** lines of the given paragraph, along with the word that comes before and the word that comes after it in the space provided. **(1X4=4)**

	Before	**Missing Word**	**After**
"The Room On the Roof" is excellent e.g.	is	an	excellent
novel written Ruskin Bond.	(a)_____	_____	_____
It a beautiful piece of writing	(b)_____	_____	_____
that reflects many explorations new	(c)_____	_____	_____
discoveries the adolescents' world	(d)_____	_____	_____
The main character, boy named	(e) _____	_____	_____
'Rusty', is in search of his identity.			

Q7.Rearrange the following words or phrases to make meaningful sentences.

(Attempt any four) (1X4=4)

a) likes/everybody/eat/to /food/good.

b) it/believed/cooked/food/affection/with/is/tastier/that/is

c) more/young/ opting/are/people/for /a/chart/diet/vegetarian/more/and

d) a/is/vegetarianism/growing/steadily/trend/of/because/health/reasons

e) eating habits/schools/healthy/must provide/that/promotes/a / environment

SECTION C – LITERATURE (30 MARKS)

Q 8. Read the following extract of the poem and answer the following questions

(1X4=4)

"Now, you shall build as the birds do
And shall get your scanty food
By boring, and boring, and boring,
All day in the hard, dry wood"

a) Name the poem and the poet

b) Who is the speaker of the above lines?

c)How does the speaker curse the old woman?

d)What will the old lady have to do to get her scanty food?

OR

"You just go to sleep, child," said Alice, pulling off her socks, "and don't you scream and wake your poor pa."

a) Who was Alice?

b) What did Alice ask the child?

c) Why was the child left alone in the house?

d) What used to happen to the child at night?

Q9. Answer any three questions from Section A (Beehive) and any two questions from Section B (Moments) in about 30-40 words each: (2X5=10)

Section A: Beehive

(1) How was Albert Einstein uncommon as a child? How did he spend his time?

(2) What two important and earth shaking decisions did the doctor take while he was looking into the mirror?

(3)That night there was a hue and cry in the house. Why was there such a noise? (The Little Girl)

(4) Where was the shehnai played traditionally? How did Bismillah Khan change this?

Section B: Moments

(1) In what way is Iswaran an asset to Mahendra?

(2) Why does the disciple decide to stay in the Kingdom of Fools? Is it a good idea?

(3) How did grandfather carry Toto to Saharanpur?

Q 10. Answer anyone of the following questions in about 100-150 words (8)

(a) In which respect is your school system different from that of Margie? Which one do you like and why?

OR

(b) What inspiration do you get from the life of Evelyn? According to you, what were the most important factors that helped Evelyn in her life?

Q 11. Answer anyone of the following questions in about 100-150 words (8)

(a) By helping the needy and bringing a smile on someone's face, we can experience real happiness. Explain in the context of the lesson "The Happy Prince"

OR

(b)The Lost Child is all about the sweet relationship between children and parents. Parents are an umbrella of security and children a source of happiness and joy. This relationship if lost kills the will to live. Describe how this is brought in the story.

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Atomic Energy Education Society

Periodic Test-II (2019 – 20)

Class : IX **For Rawatbhata Centre** **Time: 3 Hours**

Subject : Mathematics **Marks: 80**

General Instructions:

(a) The question paper comprises FOUR sections A,B,C and D.

(b) All the questions are compulsory.

(c) Section –A contains 20 very short answer questions carry 1 mark each.

(d) Section – B contains 6 short answer questions carry 2 marks each.

(e) Section – C contains 8 short answer questions carry 3 marks each.

(f) Section – D contains 6 long answer questions carry 4 marks each.

Note: Internal choice is given in sections B, C and D.

SECTION – A **(10 × 2 = 20 Marks)**

1.

Choose the correct option.

(i). What is the measure of an acute angle which equals to one fifth of its supplement?

(a) 30^0 (b) 150^0 (c) 90^0 (d) 60^0

(ii). Which of the following is the solution of $3y - 2x = 1$.

(a) (4,3) (b) (7,5) (c) (5,7) (d) (0, 3)

(iii). Which of the following is polynomial in 'y'.

(a) $y^2 + \sqrt{2}$ (b) $y + \frac{1}{y} + 2$ (c) $\sqrt{y} + 3y$ (d) $y\sqrt{y} + 3y$

(iv) If a,b and c are the lengths of the sides of a triangle., then

(a) $a + b > c$ (b) $a > b + c$ (c) $a + c < b$ (d) $a + b = c$

(v). If $(3x - 4)(5x + 7) = 15x^2 - kx - 28$ then the value 'k' is

(a) 0 (b) 2 (c) 1 (d) – 1

(vi). Which of the following statement is true?

(a) Every real number is a rational number (b) Every real number is an irrational number

(c) Every rational number is a real number (d) All the above three are correct.

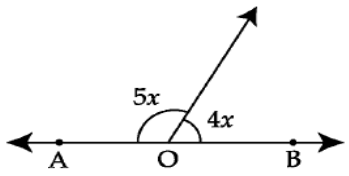
(vii). If $p(x) = x^3 + 3$ then $p(x) - p(-x)$ is

(a) 0 (b) $2x^3$ (c) 6 (d) – 6

(viii) . If Δ ABC, $\angle C > \angle B$ then which of the following is true?

(a) AB > AC (b) BC > AC (c) AB < AC (d) BC < AC

(ix). The value of x in the given fig is .



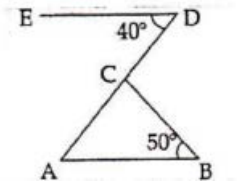
(a) 90^0 (b) 20^0 (c) 90^0 (d) 180^0

(x) Which of the following is not a criterion for congruence of triangles.

(a) SAS (b) SSA (c) SSS (d) ASA

Very Short Answer Questions

(xi) In the given fig. Δ ABC, , $\angle ABC = 50^0$, AC is extended to D and DE || BA such that $\angle CDE = 40^0$, then find the value of $\angle DCB$.



(xii) . Find the value of $3\sqrt{45} \div \sqrt{81}$.

(xiii). Find the value of $\sqrt{(625)^{\frac{-1}{2}}}$.

(xiv). Write any two non zero integers which lie between $\frac{-7}{3}$ and $\frac{7}{3}$.

(xv). If (3p – 2, 2p) is the solution of the linear equation 3x – 2y = 4, then find the value of p.

(xvi). In which quadrants the point whose abscissa and ordinate have different signs?

(xvii). What is the Rationalizing factor of $\sqrt[3]{54}$?

(xviii). Write the factors of $4x^2 + 8x + 3$.

(xix). A point P lies on the negative direction of y- axis at a distance of 5 units, then write the coordinates of point P.

(xx). If x + y = 12, xy = 27 , find the value of $x^2 + y^2$.

SECTION – B **(6 × 2 = 12 Marks)**

2. Write $0.3\overline{31}$ in the form of $\frac{p}{q}$ where p and q are co primes.

3. Factorize $2a + 3b – 4a^2 + 9b^2$.

4. Evaluate usimg Identities .∴ $\frac{(0.93^3)+(0.07^3)}{(0.93^2)-(0.93\times0.07)+(0.07^2)}$

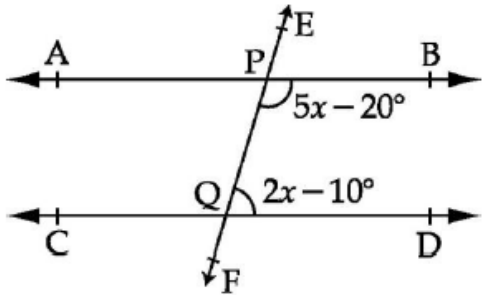
(OR)

Find the product using identities

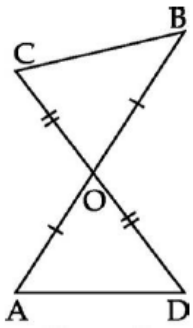
$(x^2 + 3xy + 9y^2)\ (x^2 - 3xy + 9y^2)\ (x^2 - 9y^2)$

5. The cost of a note book is twice the cost of a pen Write a linear equation in two variable to represent the statement .Take cost of a note book is Rs *y* and the cost of a pen Rs *x*. Write the equation in the form $ax + by = c$ and also write the value of $a + b + c$.

6. In the given figure, if AB is parallel to CD, then find the value of $\boldsymbol{x}$.



7. In the fig. OA = OB and OD = OC. Show that Δ AOD ≅ Δ BOC.



SECTION – C **(8 × 3 = 24 Marks)**

8. Locate $\sqrt{3}$ on the number line.

9. Prove that sum of the interior angles of a triangle is 180^0.

10. Plot the following points and write the name of the figure obtained by joining them in order.
P (- 3, 2) , Q(- 7, -3), R(6, -3), S(2,2)

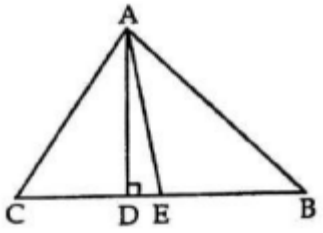
11. If $a + b + c = 6$ and $a^2 + b^2 + c^2 = 14$ then find the value of $ab + bc + ca$.

12. If 2a + 3b + c = 0, find the value of $\frac{4a^2}{3bc} + \frac{9b^2}{2ac} + \frac{c^2}{6ab}$.

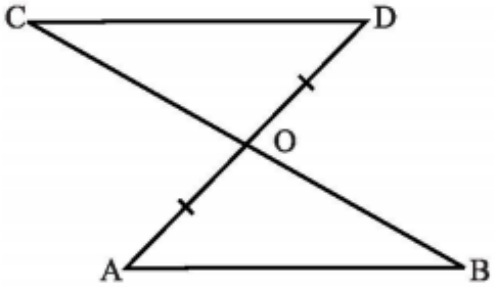
(OR)

If $\left(\frac{8}{15}\right)^3 - \left(\frac{1}{3}\right)^3 - \left(\frac{1}{5}\right)^3 = \frac{x}{75}$, find the value of ***x***

13. In the given fig.$\angle ACD = 70^0$, $\angle ABC = 50^0$. If AD is perpendicular to CB and AE bisects $\angle CAB$. Find $\angle DAE$

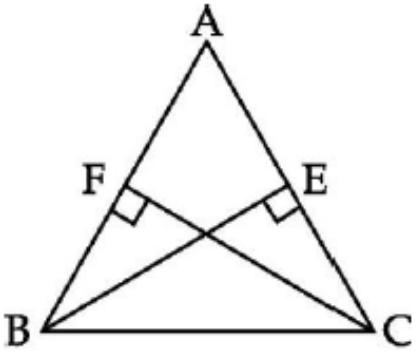


14. Line segment AB is parallel to another line segment CD. O is the midpoint of AD. Show that (i) Δ AOB $\cong$ Δ DOC (ii) O is also the midpoint of BC.

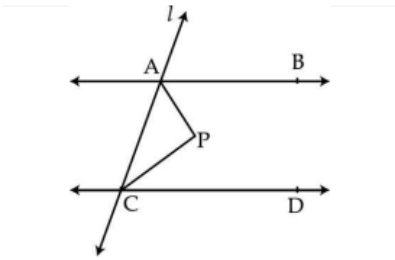


(OR)

ABC is a Triangle, in which altitudes BE and CF to sides AC and AB respectively are equal. Show that Δ ABE $\cong$ Δ ACF. Also show that Δ ABC is an isosceles triangle.

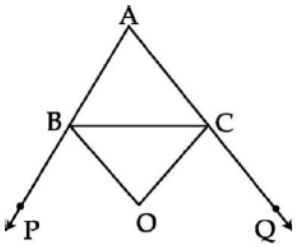


15. In the given fig. AB || CD and a transversal 'l' cuts AB and CD at A and C respectively. Bisectors of ∠A and ∠C intersect each other at P. Prove that ∠APC = 90^0

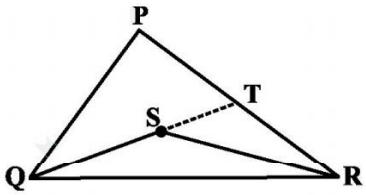


SECTION – D **(6 × 4 = 24 Marks)**

16. The sides AB and AC of Δ ABC are produced to points P and Q respectively. If bisectors BO and CO of ∠CBP and ∠BCQ respectively meet at point O, then prove that ∠BOC = $90^0 - \frac{1}{2}$∠BAC.



17. In the given fig. PQR is a triangle and S is any point in its interior. QS is produced which meets PR at T. Show that SQ+ SR < PQ+ PR.



18. Draw the graph of the equation 3x + 4y = 12 and find the coordinates of the points of intersection of the graph with the coordinate axis.

19. Simplify: $\frac{7\sqrt{3}}{\sqrt{10}+\sqrt{3}} - \frac{2\sqrt{5}}{\sqrt{6}+\sqrt{5}} - \frac{3\sqrt{2}}{\sqrt{15}+3\sqrt{2}}$.

20. Simplify: $x^3 + 13x^2 + 32x + 20$.

(OR)

The polynomials $x^3 + 2x^2 - 5ax - 8$ and $x^3 + ax^2 - 12x - 6$ when divided by (x – 2) and (x – 3) leave remainders p and q respectively. If q – p = 15, find the value of a.

21. Prove that two triangles are congruent if two angles and included side of one triangle are equal to two angles and included side of other triangle.

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Total pages printed: 05

ATOMIC ENERGY EDUCATION SOCIETY

PERIODIC TEST – II

For Other Than Rawatbhata Centre

CLASS : IX TIME : 3 HOURS

SUBJECT : MATHEMATICS MAX MARKS : 80

GENERAL INSTRUCTIONS:

1. All questions are compulsory & internal choices of questions are available.
2. The question paper consist of 40 questions divide into 4 sections A, B, C & D.

   Section A comprises 20 questions of 1 mark each.

   Section B comprises 6 questions of 2 marks each.

   Section C comprises 8 questions of 3 marks each.

   Section D comprises 6 questions of 4 marks each.
3. Use of Calculator is not permitted.

SECTION-A

Choose the correct option from question no.1 to 20**.**

1. The number 1.101001000100001... is (1M)

   A) a natural number B) a whole number C) a rational number D) an irrational number

2. On dividing $6\sqrt{27}$ by $2\sqrt{3}$,we get (1M)

   A) $3\sqrt{9}$ B) 6 C) 9 D) none of these

3. Simplified form of $3^{\frac{2}{3}} \cdot 3^{\frac{1}{5}}$ is (1M)

   A) $3^{\frac{2}{15}}$ B) $9^{\frac{2}{15}}$ C) $3^{\frac{2}{3}}$ D) $3^{\frac{13}{15}}$

4. Degree of a zero polynomial is (1M)

   A) 0 B) 1 C) any natural number D) not defined

5. Factors of $3x^2 - x - 4$ are (1M)

   A) $(x-1)$ & $(3x-4)$ B) $(x+1)$ & $(3x-4)$ C) $(x+1)$ &$(3x+4)$ D) $(x-1)$ & $(3x+4)$

6. Zeroes of the polynomial $p(x)=(x-2)^2-(x+2)^2$ are (1M)

   A) $2,-2$ B) $2x$ C) $0,-2$ D) 0

7. A point which lies in third quadrant have sign (1M)

A) (+,+) B) (–,+) C) (+,–) D) (–,–)

8. If y coordinate of a point is zero, then this point always lies (1M)

A) in I quadrant B) in II quadrant C) on x-axis D) on y-axis

9. Which of the following points lie on the line y= – x? (1M)

A) (2,2) B) (2,–2) C) (3,3) D) (–2,3)

10. A linear equation in two variables is of the form ax + by + c = 0,where (1M)

A) a$\neq 0, b \neq 0$ B) a$= 0, b \neq 0$ C) a$\neq 0\ , b = 0$ D) a$= 0, c = 0$

11. x= 5,y= – 2 is a solution of the linear equation (1M)

A) 2x + y = 9 B) 2x – y = 12 C) x + 3y = 1 D) x + 3y=0

12. The linear equation 3y –5 = 0, represented as ax + by + c = 0, has (1M)

A) a unique solution B) infinitely many solutions C) two solutions D) no solution

13. Find the value of $249^2 - 248^2$ (1M)

A) 1^2 B) 477 C) 487 D) 497

14. If one of the angles of a triangle is 120^0 , then the angle between the bisectors of the other two angles can be (1M)

A) 120^0 B) 30^0 C) 60^0 D) 150^0

15. If the difference between the two complementary angles is 10° ,then the angles are (1M)

A) 50°, 60° B) 50° ,40° C) 80°,10° D) 35°,45°

16. Number of triangles which can be drawn with angles 42°,65°& 74° are (1M)

A) one triangle B) two triangle C) many triangles D) no triangle

17. Diagonals of a rectangle ABCD intersect at O .If ∠AOB= 70°, then ∠DCO is (1M)

A) 70° B) 110° C) 35° D) 55°

18. In $\Delta PQR, if\ \angle R > \angle$Q ,then (1M)

A) QR > PR B) PQ > PR C) PQ < PR D) QR < PR

19. In the two triangles ABC & DEF, AB = DE, BC = DF & AC = EF, then (1M)

A) ΔABC ≅ ΔDEF B) ΔABC ≅ ΔEFD C) ΔABC ≅ ΔFDE D) none of these

20. It is given that ΔABC ≅ ΔFDE & AB=5 cm, $\angle B = 40°$&$\angle A = 80°$.Then which of the following is true? (1M)

A) DF=5cm $\angle F$60° B) DF=5cm ∠E=60° C)DE=5cm ∠E=60° D) DE=5cm ∠D=40°

SECTION-B

21. Express $3.\overline{2}$ in the form $^{p}/_{q}$, where p& q are integers & q≠ 0. (2M)

22. Evaluate 104 x 105 using suitable identity. (2M)

OR

Find the remainder when $4x^3 - 3x^2 + 4x - 2$ is divided by $x - 1$

23. Which of the following points lies on the y-axis? (2M)

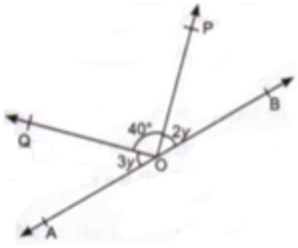
A(1,1) , B(1,0), C(0,1), D(0,–6), E(0,–1), F(–1,0), G(0,5), H(7,0) & I(3,3)

24. Find two solutions of the equation $2x + 3(y - 1) = 12$. (2M)

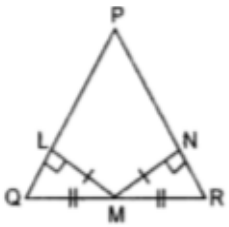
OR

Draw the graph of the equation $2x + 5y = 10$. Find the points where the line meets two axes.

25. In the given figure find the value of y. (2M)



26. In the given fig, LM=MN, QM = MR, ML ⊥ PQ & MN ⊥ PR. Prove that PQ = PR. (2M)



SECTION-C

27. Represent $\sqrt{5.7}$ on a number line. (3M)

28. If $x = \frac{-1}{3}$ is a zero of the polynomial $p(x) = 27x^3 - ax^2 - x + 3$, find the value of 'a'. (3M)

29. Verify that $x^3+y^3+z^3 - 3xyz = \frac{1}{2}(x + y + z)\,[(x - y)^2(y - z)^2(z - x)^2]$ (3M)

OR

a)without actually calculating the cubes, find the value of $(-12)^3 + 7^3 + 5^3$

b) Expand $(-2x + 3y + 2z)^2$ using suitable identity.

30. In which quadrant will the point (3,2) lie if (3M)

i) Ordinate is multiplied by (–1)

ii) abscissa is multiplies by (–2)

iii) abscissa & ordinate both are added (–5)

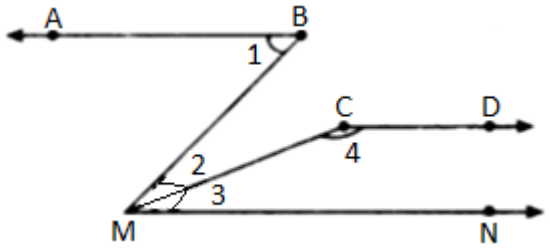
31. Prove that "The sum of the angles of a triangle is 180^0". (3M)

32. Prove that if the arms of the angle of one angle are respectively are parallel to the arms of the other angle, then the angles are equal or supplementary. (3M)

OR

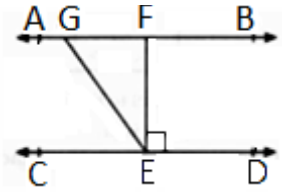
Show that " In a quad ABCD, AB + BC + CD + DA > AC+ BD ".

33. In the given fig, $\angle 1 = 55°, \angle 2 = 20°, \angle 3 = 35°$ & $\angle 4 = 145°$. Prove that AB ‖ CD. (3M)

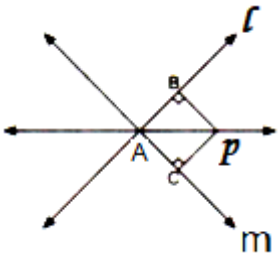


OR

In the given fig ,if AB ‖ CD,EF⊥CD & $\angle GED = 126°$,find $\angle AGE, \angle GEF$ &$\angle FGE$.



34. P is a point equidistant from two lines l & m intersecting at point A as shown in figure. Show that line AP bisects the angle between them.



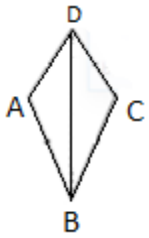
OR (3M)

In the given figure, AD = CD & AB = CB.

Prove that

(i)$\Delta ABD \cong \Delta CBD$.

(ii)BD bisects $\angle ABC$.



SECTION D

35. If $x = \frac{\sqrt{2}+1}{\sqrt{2}-1}$ & $y = \frac{\sqrt{2}-1}{\sqrt{2}+1}$ find the value of $x^2 + y^2 + xy$. (4M)

OR

Simplify $\left\{ \left(\frac{81}{16}\right)^{\frac{-3}{4}} \times \left[\left(\frac{25}{4}\right)^{\frac{-3}{2}} \div \left(\frac{5}{2}\right)^{-3}\right] \right\}$

36. It is given that $3a + 2b = 5c$, then find the value of $27a^3 + 8b^3 - 125c^3$ if $abc = 0$. (4M)

37. Plot the points E (4, 2), L (–1, 3), I (0, 2) & N (2, 0) on the Cartesian plane. Join these points in order. Name the shape thus obtained. What would you say about the points L, I & N? (4M)

OR

The three vertices of a rectangle are (3, 2), (– 4, 2) & (– 4, 5).Plot these points & find the coordinates of the fourth vertex.

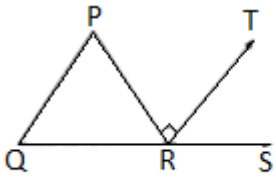
38. Give the geometrical representation of $2x + 9 = 0$ as an equation in (4M)

(a) One variable

(b) Two variables

How many solution(s) does this equation have on a) number line b) Cartesian plane?

39. In the given fig, side QR of a ΔPQR has been produced to S. If $\angle P : \angle Q : \angle R = 3 : 2 : 1$ & RT⊥ PR find $\angle TRS$ (4M)



40. Prove that the sum of three altitudes of a triangle is less than the sum of the three sides of a triangle. (4M)

OR

O is a point in the interior of a square ABCD such that ΔOAB is an equilateral triangle. Show that ΔOCD *is* an isosceles triangle.

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Total No. of printed pages: 5

ATOMIC ENERGY EDUCATION SOCIETY
PERIODIC TEST – II (2019-20)

For Rawatbhata Centre

Class: IX Time:-3 hours

Subject:-Science Marks:-80Marks

GENERAL INSTRUCTIONS:-

1. The question paper consist of 36 questions divided into three sections A, B, C. You have to attempt all the sections.
2. All questions are compulsory.
3. **Section A** comprises of total 20 questions out of which 10 questions are multiple choice questions of 1 mark each, 3 questions are based on assertion and reasoning which carries 1 mark each, and 7 questions are very Short Answer Type questions of 1 mark each.
4. **Section B** comprises of 10 Short Answer Question of 3 marks each.
5. **Section C** comprises of 6 Long Answer Type Questions of 5 mark each.

SECTION-A (OBJECTIVE TYPE QUESTIONS) 1 x 20=20 MARKS

Choose the most appropriate answer from the following:-

1. The conversion of solid to gas directly is called as:-
   a) evaporation b) sublimation c) distillation d) condensation

2. Particles move randomly in:-
   a) water b) sugar c) nitrogen d) dry ice

3. Which are the favourable conditions for liquefaction of petroleum gas?
   a) high pressure, high temperature b) low pressure, low temperature
   c) high pressure, low temperature d) low pressure, high temperature

4. In the separation of dyes A and B by chromatography, component B has more solubility in the solvent. Which component will rise faster?
   a) A b) B
   c) both at the same time d) separation of dyes is independent of the solubility in the solvent

5. Which of the following is not a component of an animal cell:-
   a) Golgi bodies b) Endoplasmic reticulum
   c) cell wall d) plasma membrane

6. In India there has been a four times increase in the production of food grains from 1952 to 2010 with only 25% increase in the cultivable land area. Which among the following factor is not responsible for this:-
   a) crop variety improvement b) population growth
   c) crop production improvement d) crop protection management

7.Which of the following conditions give most benefits:-

a) farmer use high quality seeds, do not adopt irrigation or use fertilizers
b) farmer use ordinary seeds ,adopt irrigation or use fertilizers
c) farmer use quality seeds, adopt irrigation and use fertilizers
d) farmer only irrigate the field

8. The atmosphere is held to the earth by:

a) Gravity b) Wind c) Clouds d) Earth's magnetic field

9. An object weighs 10N on the surface of the earth. What is its weight if we measure it on the surface of the moon

a) 16 N (b) 4 N (c) 60 N (d) 1.67 N

10.Which of the following examples does not move under uniform circular motion.

a) motion of the moon and the earth b)motion of a satellite in a circular orbit
c) motion of a cyclist on a circular track at constant speed
d) motion of a car at constant speed in rectilinear motion

In the following questions a statement of assertion following by a statement of reason is given.
Choose the correct answer out of the following choices:-

a) Both assertion and reason are correct statements and reason is the correct explanation of the assertion.

b) Both assertion and reason are correct but reason is not the correct explanation of the assertion.

c) Assertion is correct but reason is wrong statement.

d) Assertion is wrong but reason is correct statement.

e) Both assertion and reason are wrong statements.

11. Assertion: Sand in water can be considered as a suspension.
Reason: The particles of a suspension can be seen by the naked eyes. (1M)

12. Assertion: cytoplasm is the main arena of cellular activities in both plant and animal cell.
Reason: Various chemical reactions occur in it to keep the cell in living state. (1M)

13. Assertion: Mass of an object is the measure of its inertia.
Reason: The mass of an object is constant and does not change from place to place. (1M)

14. The mass per unit volume is called as density. Arrange the following in order of increasing density: air, exhaust from chimneys, honey, water, chalk, cotton and iron. (1M)

15. Name the solute and solvent in 'tincture of iodine'. (1M)

16.Write two problems related to excess use of pesticides. (1M)

17. Establish the relation between 1 Newton and 1 Dyne. (1M)

18. A particle is travelling in a circle of diameter 15 m. Calculate the displacement when it completes 2 rounds. (1M)

19. A particle is thrown up vertically with a velocity of 50 m/s. How high would the particle rise? ($g = 10\ m/s^2$)
(1M)

20. If the moon attracts the earth, why does the earth not move towards the moon? (1M)

SECTION –B (SHORT ANSWER TYPE) 3 X 10=30 MARKS

21. List three facilities which must be provided to the cattle to ensure the good health and clean milk production. (3)

OR

Which cell organelles are known as:

a) Power house of the cell b) Suicidal bags of the cell c) Kitchen of the cell

22. A mixture contains two liquids A and B which differs in their boiling points are 400K and 450K respectively. Suggest a suitable process to separate them. Explain the process. (3M)

23. A solution had been prepared by mixing 5.6 ml of alcohol in 75 ml of water. Calculate the percentage of alcohol in the solution. (3M)

24. Two beakers A and B contain plain water and concentrated sugar solution respectively. Equal number of dried raisins are kept in them for few hours and then taken out. (3M)

a) Explain the reason for the difference in the physical appearance of the raisins which were taken out of the two beakers.

b) On the basis of above observations categorize the two solutions as hypotonic and hypertonic.

25. What is the function of sieve tube cells and how are they designed to carry out their function? (3M)

OR

How is simple permanent tissue different from complex permanent tissue? (Any 3 points)

26. Why is organic farming considered beneficial for crop production management? Why is it called an eco-friendly process? (3M)

27. Fertilizers have short term benefits whereas manures have long term benefits. Do you agree with this statement? Give three reasons in support of your answer. (3M)

28. Define motion. Prove that $v^2 - u^2 = 2as$ in graphical method. (3M)

29. An object of mass ‘m’ is falling freely towards the earth. Derive that the acceleration due to gravity is independent of the mass of the object. How are acceleration due to gravity and gravitational - constant are different? (Any two points of difference) (3M)

30. Give reasons (3M)

a) It is difficult to push a heavy box than an empty box of the same size.

b) Fireman finds it difficult to hold a hose which ejects large amount of water with high velocity.

c) A body can have mass but no weight.

SECTION-C (LONG ANSWERS) 5 x 6=30 MARKS

31. a. Define: i) evaporation ii) diffusion (5M)

b. Give reasons:

i) Clothes do not dry up easily during the rainy season.

ii) We see water droplets on the outer surface of the glass containing cold water.

Iii) Perspiration sweating keeps our body cool.

32. i) Why plasma membrane is called selectively permeable membrane? (5M)

ii) Which plastid would you expect to find in:

a) papaya b) grass

iii) Which type of cell division is required for:

a) growth and repair of the body b) formation of gametes

iv) What would happen if there is no lysosome in the cell?

33. Three students A, B and C prepared mixture using chalk powder, common salt and milk respectively in water. Which mixture: (5M)

i) Would not leave residue on filter paper after filtration?

ii) Would show Tyndall effect?

iii) Would show transparent/clear solution?

iv) Would settle down at the bottom?

v) Could be filtered by filter paper?

34. Correlated the first pair of words given below and accordingly insert a suitable word in the second pair:- (5M)

i) Heart : Cardiac muscle :: ---------- : smooth muscles

ii) Squamous epithelium : protection :: ---------- : absorption and secretions

iii) Write functions of tendon and ligament.

OR

Give the schematic location of the meristematic tissue in the plant body.

Also write the function of each of these tissues.

35. a) State Newton's First Law of Motion. (1m)

b) Derive the relation between force and the acceleration produced in a body. (3m)

c) An automobile vehicle has a mass of 1500 kg. What must be the force between the vehicle and the road if the vehicle is to be stopped with a negative acceleration of 1.7 m/s^2 (1m)

OR

a) State Law of Conservation Of Momentum. (1 M)

b) Why a cricket player lowers his hands while catching the ball? (1 M)

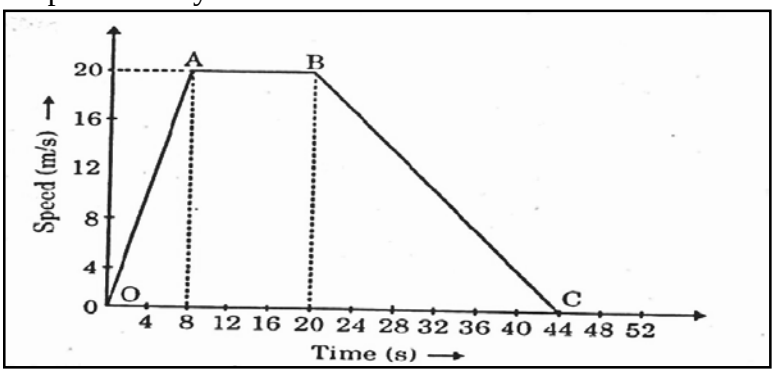
c) A gun of mass 500 g fires a bullet of mass 10 g with a speed of 100 m/s. Find

Initial momentum of gun + bullet (1 M)

Momentum gained by the bullet after firing (1 M)

Recoil Velocity of the gun. (1 M)

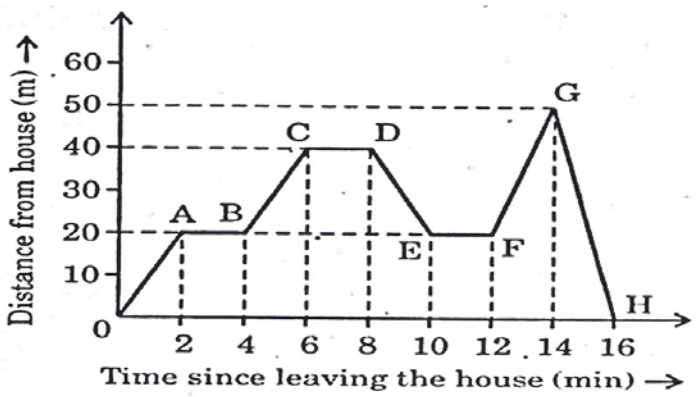
36. The Speed -Time Graph of a body is as shown below: (5M)



a) What type of motion is represented by OA?
b) What type of motion is represented by AB?
c) Calculate the retardation of the body.
d) Calculate the distance travelled by the body from O to C.
e) What is the average speed of the body for its entire journey?

OR

The following graph describes the motion of a girl going to meet her friend who stays 50 m from her house:



a) How much time she takes to reach her friend's house?
b) What is the distance travelled by the girl during the time-interval 0 to 12 minutes?
c) During which time-interval she is moving towards her house?
d) For how many minutes she was at rest, during the entire journey?
e) Calculate the speed by which she returned home after meeting her friend?

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Total number of printed pages: 4

ATOMIC ENERGY EDUCATION SOCIETY

PERIODIC TEST II (2019)

Class: IX **For Other Than Rawatbhata Centre** **Time: 3 Hrs**

Sub: Science **Marks: 80**

Instructions:

1. The question paper consists of 36 questions divided into three sections A, B and C. You have to attempt all the Sections.
2. All questions are compulsory; however internal choice is given for three questions in sections B & two questions in section C.
3. **Section A** comprises of total 20 questions out of which 10 questions are multiple choice questions of 1 mark each, 3 questions are based on *assertion and reasoning which carries* 1 mark each, and 7 questions are *very Short Answer Type* questions of 1 mark each.
4. **Section B** comprises of 10 Short Answer Questions of 3 marks each.
5. **Section C** comprises of 6 Long Answer Type Questions of 5 marks each.

SECTION - A

1 Which of the following mixtures is clear and transparent? 1
a) Chalk powder and water b) sand and water c) sugar and water d) soil and water

2 A mixture of iron filings and Sulphur powder is spread on a white sheet of paper and a magnet is rolled over it. The particles which cling to the magnet are: 1
a) Sulphur powder b) iron filings c) iron sulfide d) mixture of iron and Sulphur

3 Which of the following has maximum energy? 1
a) Ice b) water c) steam d) all have same energy

4 Which of the following can readily sublime? 1
a) Ammonium chloride b) sodium chloride c) hydrochloric acid d) chlorine gas

5 Chemically plasma membrane is: 1
a) Lipoproteins b) glycoproteins c) only lipids d) only proteins

6 Human cheek cells differ from onion peel cells in: 1
a) Absence of cell wall b) presence of nucleus c) Presence of vacuole d) all of these

7 Girth of stem increases due to: 1
a) Apical meristem b) lateral meristem c) intercalary meristem d) none of these

8 The physical quantity which is the product of mass and velocity of a body is known as: 1
a) Inertia b) Force c) Momentum d) Energy

9 What is the SI unit of weight? 1
a) Gram b) Newton c) Kilogram d) Joule

10 The force that governs the motion of the moon around the earth is ____ force 1
a) Centripetal b) Frictional c) Normal d) Muscular

11 What are micronutrients? 1

12 Name the substance due to which cork cells are impervious to water. 1

These questions (Q. No 13 to Q.No15) have two statements, Assertion and Reason. While answering you have to choose any one of the following four responses:

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

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

c) If assertion is true but reason is false.

d) If both assertion and reason are false.

13 Assertion: cytoplasm is the main arena of cellular activities in both plant and animal cell. 1
Reason: Various chemical reactions occur in it to keep the cell in living state.

14 Assertion:-Sodium chloride in water can be considered as true solution. 1
Reason:-The particles of a suspension can be seen by the naked eye.

15 Assertion: Mass of an object is the measure of its inertia. 1
Reason: The mass of an object is constant and does not change from place to place.

16 Write one function of stomata. 1

17 What is vermicomposting? 1

18 What is the quantity that is measured as the area under the velocity- time graph? 1

19 There are three solids made up of aluminium, steel and wood, of the same shape and same Volume. Which of them would have highest inertia? 1

20 State Universal Law of Gravitation. 1

SECTION - B

21 What is composite fish culture? Write one advantage and one disadvantage associated with it. 3

22 a) Why plasma membrane is called a selectively permeable membrane? 3
b) What are chromosomes? When are they visible?

23 What are the consequences of the following? 3

a) A cell containing higher water concentration than the surrounding medium.

b) A cell having low water concentration than the surrounding medium.

c) A cell having same water concentration as the surrounding medium.

OR

Write three differences between a prokaryotic cell and a eukaryotic cell.

24 a) Why does temperature of a substance remain constant during change of state? 3

b) (i) Convert 27^0 C to Kelvin scale. (ii) Convert 470 K to Celsius scale

OR

A sample of water under study was found to boil at 102^0C at atmospheric pressure. Is this water Pure? Will this water freeze at 0^0C? Give reason.

25 Name the tissue found in the following: 3

i) Lining of blood vessels

ii) Lining of kidney tubule.

iii) Tip of root

iv) Iris of the eye

v) Brain and Spinal cord

vi) Nose, ear and trachea.

26 a) Copper is an element and copper sulphate is a compound. Justify your answer giving reasons. 3

b) Give two examples of homogeneous mixture.

27 Using Velocity-Time graph of uniformly accelerated motion along a straight line, derive the equation $v^2 - u^2 = 2aS$ where symbols have their usual meaning. 3

28 State Newton's second law of motion. Why does a cricket player lower his hands while catching a ball? 3

29 An object thrown upwards reaches the highest point in 5 seconds. Find the velocity with which it was thrown? Also find the distance covered. 3

OR

A car attains a velocity of 36 km/hour after accelerating uniformly from rest in 5 seconds. Find the distance travelled by the car.

30 A mixture contains two liquids A and B which differ in their boiling points. The boiling point of liquid A is 325K and liquid B is 336K. Suggest a suitable process to separate them. Explain the process. 3

SECTION - C

31 a) Correlated the first pair of words given below and accordingly insert a suitable word in the second pair:- 3

i) Tissue repair : Areolar :: insulation : ---------

ii) Flexibility : collenchyma :: hardness : ----------

iii) Plasma : blood :: Axon : ----------

b) Draw neat and labelled diagram of striated muscle. 2

32 a) Define matter and write its three states. 2

b) Why is crystallization better than evaporation? 2

c) Write two conditions to liquefy a gas. 1

OR

a) Explain any three factors which affect the rate of evaporation. 3

b) The teacher instructed three students A, B and C respectively to prepare a 50% (Mass by volume) solution of Sodium Hydroxide (NaOH). A dissolved 50g of NaOH in 100 mL of water. B dissolved 50g NaOH in 100g water while C dissolved 50g NaOH in water to make 100mL solution. Which one of them has made the desired solution? Explain with calculation. 2

33 a) Draw a flow diagram to obtain different gases from air. 3

b) Write dispersed phase and dispersion medium in: i) foam ii) solid sol 2

34 a) What are weeds? Give two examples of weeds. Write any one method of weeding. 3

b) Explain any two methods of crop variety improvement. 2

OR

a) Why is Italian bee preferred over Indian bee for honey production?

b) Write two disadvantages of using fertilizers.

35 (a) Derive graphically the expression $s = ut + \frac{1}{2}at^2$, where the symbols have their usual meaning. 3

(b) A stone is released from the top of a tower of height 19.6 m. Calculate its final Velocity just before touching the ground. 2

36 (a) State law of conservation of momentum and derive related expression. 3

(b) An object of mass 100kg is accelerated uniformly from a velocity of 5m/s to 8m/s in 6 seconds. Find its initial and final momentum. Also find the magnitude of the force exerted on the object. 2

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ATOMIC ENERGY EDUCATION SOCIETY

PERIODIC TEST-II (2019-20)

CLASS: IX **For Rawatbhata Centre** **TIME: 3 Hrs**

SUBJECT: SOCIAL SCIENCE **MARKS: 80**

General Instructions:

(i) The question paper is divided into four sections- Section A, Section B, Section C and Section D.

(ii) There are 36 questions in all. All questions are compulsory.

(iii) Questions from serial number 1 to 20 are Multiple Choice type Questions. Each question carries one mark.

(iv) Questions from serial number 21 to 28 are 3 marks questions. Answers of these questions should not exceed 80 words each.

(v) Questions from serial number 29 to 34are 5 marks questions. Answers of these questions should not exceed 100 words each.

(vi) Question number 35 and 36 are map questions of history and geography. Each question carries three marks. After completion attach the map inside your answer book.

SECTION A

1. Who among the following proposed the social contract theory? (1)

   a) Locke b) Thomas Paine

   b) Montesquieu d) Rousseau

2. What do you mean by the term Directory? (1)

   a) A convention made up of six members

   b) A congress made up of five members

   c) An executive made up of five members

   d) A council made up of sixmembers

3. The word livres stands for (1)

   a) Unit of currency in France

   b) A tax to be paid directly to the state

   c) A tax to be paid to the church

   d) None of the above

4. Which one of the following refers to the secret police of Russia? (1)

   a) Security police b) Cheka

   b) Gustapo d) Federal police

5. Who led the Bolsheviks group in Russia during the Russian revolution? (1)

a) Vladimir Lenin b)Carl Marx

c) Stalin d) Engles

6. What was the name of the parliament created in Russia during 1905 revolution? (1)

a) Assembly b) Council

c) Soviet d) Duma

7. The longitudinal valleys lying between the lesser Himalayas and the Shivaliks are known as (1)

a) Kangra valley b) Patkaibum

c) Passes d) Duns

8. The western coastal strip south of Goa is referred to as (1)

a) CoromandelCoast b) KonkanCoast

c) KannadCoast d) Northern Sarkars

9. Which is the largest fresh water lake in India? (1)

a) Wular Lake b) Dal Lake

b) Bhim Dal d) Loktak

10. In which course of a river Meanders are formed? (1)

a) Upper Course b) Middle and Lower Course

c) Lower and Upper Course d) Both Upper and Middle

11. Which of the following places of India is located on the three seas? (1)

a) Kochi b) Port Blair

c) Kanyakumari d) Trivandrum

12. Which neighboring country would you reach if you sail across the Palk Strait? (1)

a) Bangladesh b) Maldives

c) Sri Lanka d) Myanmar

13. PHC stands for (1)

a) Public Health Club b) Private Health Club

c) Primary Health Centre d) None of the above

14. Which of the following is a significant step towards providing elementary education to all the children in the age group of 6-14 years? (1)

a) Sarva Siksha Abhiyaan b) Adult Education Programme

c) Mid-Day Meal Scheme d) Non-Formal Education

15. When more people are employed than required for a particular job it is known as (1)

a) Unemployment b)Seasonal unemployment

c) Disguised unemployment d) Open unemployment

16. Bigha and Guintha are (1)

a) The type of village house

b) The type of hybrid seed

c) The measuring units of grain

d) The measuring units of land areas in villages

17. Which of the following days is celebrated to mark the enforcementof the constitution in India? (1)

a) Independence Day b) Republic Day

c) Gandhi Jayanti d) None of these

18. Who prepared the constitution for India in 1928? (1)

a) Motilal Nehru b) B.R. Ambedkar

c) Dr. Rajendra Prasad d) Jawaharlal Nehru

19. One person One Vote means (1)

a) All persons must vote for one

b) Each person has one vote and each vote has one value.

c) Each person can vote once in his life.

d) None of the above

20. Which body in the Indian Political system is an example of direct democracy? (1)

a) Municipal corporation b)Panchayat Samiti

b) Legislative Assembly d) Gram Sabha

SECTION B

21. Who was Father Gapon? Narrate the events leading to the Bloody Sunday incident and the 1905 revolution. (3)

OR

State one idea different from each other for liberals, radicals and conservatives in Russia.

22. Explain the legacy of French revolution to world society. (3)

23. Discuss the significant differences between the Himalayan Rivers and the Peninsular rivers. (3)

24. Classify the Northern plains of India on the basis of variations in the relief features. Write one characteristic each of any three of them. (3)

OR

The central location of India at the head of Indian Ocean is considered of great significance. Why?

25. Modern farming methods require more inputs which are manufactured in industry. Do you agree? Give reasons. (3)
26. How is human resource different from other resources like land and physical capital? (3)
27. How was Apartheid practiced in South Africa? (3)
28. Why Preamble is called a preface of the constitution? (3)

SECTION C

29. What were the main changes brought about by the Bolsheviks immediately after the October revolution? (5)

OR

Describe the main Causes of the French Revolution.

30. Lakes are of great value to human beings. Justify the statement with 5 suitable reasons. (5)
31. "Unemployment has a detrimental impact on the overall growth of an economy." Justify the statement. (5)

OR

"Investment in human resource via education and health care can give high rates of return in future." Support the statement with any five suitable arguments.

32. How do medium and large farmers obtain capital for farming? How is it different from the small farmers? (5)
33. What is a constitution? Why do we need it? (5)
34. Democracy is better than other forms of government. Explain. (5)

SECTION D

35. On the outline political map of world locate and label the following: (3 X 1=3M)

i) Bourdex ii) Nantes iii) Paris

36. On the outline map of India locate and label the following: (3 X 1=3M)

a) Chilika lake

b) Aravali range

c) Anaimudi

Atomic Energy Education Society

Periodic Test – II (Session : 2019-20)

Class: IX **For Other Than Rawatbhata Centre** **Time : 3 hrs**

Subject: Social Science **Marks : 80**

General Instructions:

I. The question paper has 36 questions in all. All questions are compulsory.
II. Questions from serial number 1 to 20 are objective type questions. Each question carries one mark.
III. Questions from serial number 21 to 28 are 3 marks questions. Answer of these questions should not exceed 80 words each.
IV. Questions from serial number 29 to 34 are 5 marks questions. Answer of these questions should not exceed 100 words each.
V. Question number 35 and 36 are map question of 3 marks from History and 3 marks from Geography.

1 Who stormed the Bastille, the fortress prison during the last years of 18^{th} century? 1
a) Soldiers b) Peasants c) Agitated crowd d) National Assembly

2 What did the Red Cap worn by Sans-Culottes in France symbolize? 1
a) Liberty b) Brotherhood c) Love d) Equality

3 Which one of the following was one of the three demands that Vladimir Lenin proposed in his 'April Thesis'? 1
a) To rename the Bolshevik Party as the Communist Party.
b) To Nationalise the banks
c) To have common system of elections
d) To support Provisional Government

4 Collective farms in Russia where peasants worked jointly were known as : 1
a) Kulaks b) Kolkhoz c) Cooperative d) Consortium

5 My friend hails from a country which does not share land boundary with India. Identify the country. 1
a) Bhutan b) Tajikistan c) Bangladesh d) Nepal

6 A narrow channel of sea which separates two land masses is known as : 1
a) Mound b) Pass c) Strait d) valley

7 Mountain ranges in the eastern part of India forming its boundary with Myanmar are collectively called : 1
a) Himachal b) Uttarakhand c) Purvanchal d) Kumaon

8 Which one of the following lake is a salt water lake? 1
a) Sambhar b) Dal c) Wular d) Gobind Sagar

9 Based on the information given how would you classify the country? 1
People who do not accept the country's official religion, do not have the right to vote.
a) Democratic b) Non democratic c) Parliamentary d) Monarchy

10 There are 40 villages in a district where the government has made no provision for drinking water. These villagers met and considered many methods of forcing the government to respond to their need. Which of these is not a democratic method? 1
a) Filing a case in the court claiming that water is part of right to life.
b) Boycotting the next elections to give a message to all parties.
c) Organising public meetings against government's policies.
d) Paying money to government officials to get water.

11 _____ has made its citizenship rules in such a way that people belonging to Russian minority find it difficult to get the right to vote. 1
a) Estonia b) Saudi Arabia c) Mexico d) Zimbabwe

12 Democracy enhances the dignity of: 1
a) Leaders b) Parties c) Citizens d) Candidates

13 Why should we accept the Constitution made by Constituent Assembly more than sixty years ago? Choose the correct option. 1
a) The constitution reflects the views of its members alone.
b) It expresses the broad consensus of its time.
c) The Constituent Assembly represented only the selected groups and communities.
d) There is no sanctity to the Constitution by the Constituent Assembly.

14 Which section of society did not have the right to vote in Saudi Arabia? 1
a) Poor people b) Working Class c) Women d) Traders

15 Which one of the following is an item of working capital? 1
a) Tools b) Machines c) Buildings d) Money

16 Which one of the following is not an effect of modern farming method? 1
a) Soil degradation b) Deforestation
c) Reduced water table d) Water pollution

17 Which of these states was not the first to try modern method of farming in India? (1) 1
a) Punjab b) Haryana c) Western Uttar Pradesh d) Tripura

18 Which age group of children does the Sarva Shiksha Abhyan aim to promote education? 1
a) 6 – 14 years b) 6 – 15 years c) 8 -14years d) 8- 15 years

19 Rural women are employed in low paid jobs as: 1

a) They do not need to work in high- paid jobs
b) They lack in education or necessary skill.
c) They are not allowed by their families to do high-paid jobs.
d) They are not aware of the wage structure.

20 Population becomes a human capital when investment is made in : 1

a) Education b) Medical facilities
c) Both (a) and (b) d) Transport and communication

21 On ascending the throne of France, Louis VI found the treasury empty. Write any three reasons for the treasury being empty. 3

OR

The philosophers influenced the thinking of the people of France and the French Revolution. Explain the role of any three philosophers.

22 Justify the naming of Indian Ocean after India. 3

23 What amendment did Pervez Mushraff bring about in the constitution of Pakistan by issuing a Legal Framework Order in August 2002? 3

24 How does Democracy improve the quality of decision making? 3

25 It was difficult for India to frame a constitution for united India after independence. Mention the challenges the framers of the constitution had to face. 3

26 " Green Revolution is associated with loss of soil fertility.' Explain 3

27 Do you agree that the distribution of cultivated land is unequal in Palampur. Explain. 3

28 Mention three sectors of economic activities with examples. 3

29 What were the main changes brought about by the Bolsheviks immediately after the October Revolution. 5

OR

Why didn't Stalin's policy of collectivization yield immediate results?

30 What measures were taken by Robespierre to bring equality in the French society? 5

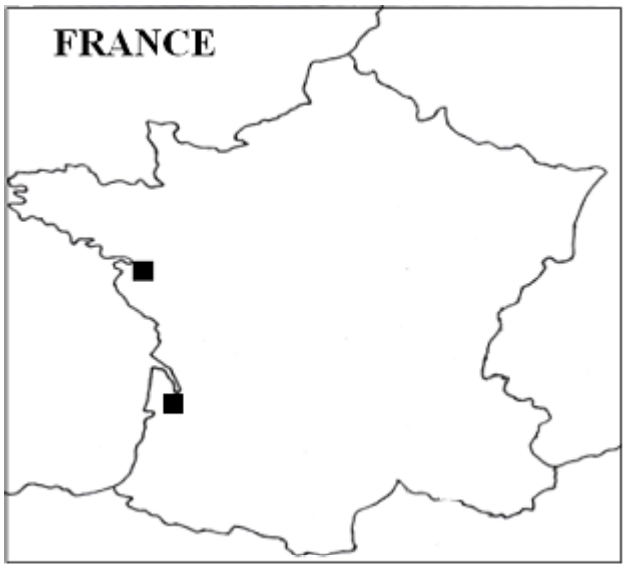
31 Mention the significance of Himalayas. 5

32 Briefly explain the characteristic features of the Ganga river system. 5

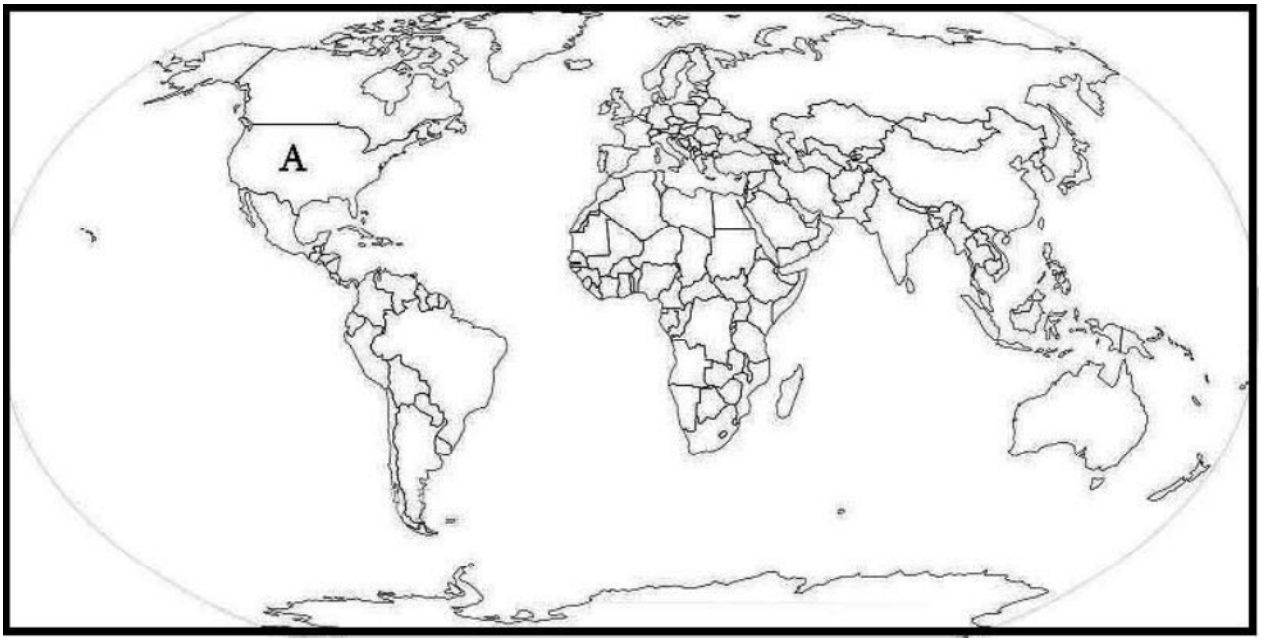
33 Explain any five major ideals enshrined in the preamble to the Constitution of India. 5

34 Analyse the role of education in the formation of human capital. 5

35. (i) On the given out line map of France, name the highlighted two ports of France related to slave trade. (2)



(ii) On the outline political map of World, identify the member Allied powers in the First World War marked as 'A'. (1)



36. (i) On the outline political map of India, identify the lake marked as A and write its name on the line marked. (1)

(ii) On the same map of India locate and Label

a) The Vindhya Range b) Kanchenjunga (2)

परमाणु ऊर्जा शिक्षण संस्था

अणुशक्तिनगर, मुंबई

आवधिक परीक्षा – 2, प्रश्न–पत्र (2019 - 20)

कक्षा – नौवीं | अधिकतम अंक – 80

विषय – हिंदी (कोर्स- अ) | समय – 3 घंटा

निर्देश – (1) प्रश्न-पत्र के चार खंड हैं – क,ख,ग,घ

(2) सभी प्रश्नों के उत्तर यथा संभव क्रमानुसार लिखिए।

(खंड – क)

1. **निम्नलिखित गद्यांश को पढ़कर पूछे गए प्रश्नों के उत्तर लिखिए।**

जीवन में वही मनुष्य सफल है, जो समय के साथ चलता है। कुछ लोग तो ऐसे दूरदर्शी होते हैं, जो आने वाले समय को पहले ही भाँप जाते हैं। ऐसे व्यक्ति अपनी योजना पहले ही बना लेते हैं तथा हर कसौटी पर सफल होते हैं। हमें समय के साथ आगे बढ़ते हुए अपना काम पूरा करते रहना चाहिए। कल के भरोसे काम को छोड़ना समस्याओं को आमन्त्रित करना है। समय बड़ा ही बलवान होता है। समय के अनुरूप चलनेवाला गरीब से अमीर बन जाता है, जबकि समय को ठीक से न भाँपनेवाला अमीर से कंगाल बन जाता है। प्रत्येक व्यक्ति के जीवन में कुछ ऐसे क्षण आते हैं, जिनसे उसके भाग्य का बनना और विगड़ना तय होता है। अगर व्यक्ति ने समय का सही गति या दिशा को समझ लिया, तब तो वह सफल हो गया, अन्यथा उसके हाथ केवल असफलता ही लगेगी। खेलकूद, खासकर दौड़ की प्रतियोगिताओं में समय ही सर्वाधिक निर्णायक होता है। कल्पना चावला को ले जानेवाला अंतरिक्षयान कोलंबिया यदि कुछ मिनट और ठीक रहता, तो शायद वे और उनके सभी साथी अंतरिक्षयात्री सुरक्षित बच जाते। अतः हम कह सकते हैं कि मानव जीवन का सबसे बड़ा नियामक घटक समय ही है।

I. दूरदर्शी व्यक्ति सफल क्यों होते हैं ? (2)

II. समय के साथ नहीं चलनेवाले का क्या नुकसान होता है ? (2)

III. मानव जीवन का सबसे बड़ा नियामक घटक क्या है और कैसे है ? (2)

IV. 'स्वयं पर निर्भर रहनेवाला' आत्मनिर्भर है, तो 'दूर की सोचनेवाला' क्या होगा ? (1)

V. अंतरिक्षयान कोलंबिया में भारतीय मूल की महिला अंतरिक्षयात्री कौन थीं ? (1)

2. **निम्नलिखित काव्यांश को पढ़कर पूछे गए प्रश्नों के उत्तर लिखिए।**

मैं मजदूर मुझे देवों की बस्ती से क्या !
अगणित बार धरा पर मैंने स्वर्ग बनाए
अंबर पर जितने तारे उतने वर्षों से
मेरे पुरुखों ने धरती पर रूप सँवारा
धरती को सुंदरतम करने की ममता में
बिता चुका है कई पीढ़ियाँ वंश हमारा
अपने नहीं अभाव मिटा पाया जीवन भर,
पर औरों के सभी अभाव मिटा सकता हूँ
युगों-युगों से इन झोपड़ियों में रहकर भी,
औरों के हित लगा हुआ हूँ महल सजाने,
ऐसे ही मेरे कितने साथी भूखे रह,
लगे हुए हैं औरों के हित अन्न उगाने,
इतना समय नहीं मुझको जीवन में मिलता,
अपनी खातिर सुख के कुछ समान जुटा लूँ
और अभी आनेवाली सदियों में,
मेरे वंशज धरती का मिलकर उद्धार करेंगे
इस प्यासी धरती के हित में ही लाया था,
हिमगिरि चीर सुखद गंगा की निर्मल धारा।

I. कविता के लिए उपयुक्त शीर्षक लिखिए ? (1)

II. 'अंबर' शब्द के दो पर्यायवाची शब्द लिखिए ? (1)

III. मजदूरों की कई पीढ़ियाँ निरन्तर किस कार्य में लगी हुई हैं ? (1)

IV. अगणित बार धरा पर स्वर्ग बनाने से कवि का क्या अभिप्राय है ? (2)

V. गंगा की निर्मल धारा को कौन, कहाँ से और किस लिए ले आए ? (2)

खण्ड 'ख'

3. **निर्देशानुसार उत्तर दीजिए -**

क. 'निरादर' शब्द में प्रयुक्त उपसर्ग व मूल शब्द लिखिए। (1)

ख. 'सह' उपसर्ग से दो शब्द बनाइए। (1)

ग. 'गरमाहट' शब्द में प्रयुक्त प्रत्यय व मूल शब्द लिखिए। (1)

घ. 'आवट' प्रत्यय से दो शब्द बनाइए। (1)

4. **निम्नलिखित समस्तपदों का विग्रह कर समास का नाम लिखिए -**

पंचवटी, यथाशक्ति, नीलकंठ (3)

5. **अर्थ के आधार पर वाक्य-भेद बताइए -**

(क) अब बैठकर अपना काम करो। (1)

(ख) क्या तुम पढ़ोगे ? (1)

6. **निर्देशानुसार वाक्य परिवर्तन कीजिए -**

(क) क्या रवि ने अपना काम कर लिया है ? (निषेध वाचक) (1)

(ख) बारिश से फसल अच्छी होती है। (संकेत वाचक) (1)

7. **अनुप्रास अलंकार का एक उदाहरण लिखिए।** (1)

8. **अलंकार बताइए -**

अ) काली घटा का घमंड घटा। (1)

आ) मानसरोवर सुभर जल, हंसा केलि कराहिं। (1)

इ) क्या हुई बावली ? (1)
अर्धरात्रि को चीखी,
कोकिल बोलो तो !

खण्ड 'ग'

9. **निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़कर पूछे गए प्रश्नों के उत्तर लिखिए।**

एक सप्ताह तक दोनों मित्र वहाँ बंधे पड़े रहे। किसी ने चारे का एक तृण भी नहीं डाला। हाँ, एक बार पानी दिखा दिया जाता था। यही उनका आधार था। दोनों इतने दुर्बल हो गये थे कि उठा तक न जाता था, ठठरियाँ निकल आई थीं।

एक दिन बाड़े के सामने डुग्गी बजने लगी और दोपहर होते-होते वहाँ पचास-साठ आदमी जमा हो गये। तब दोनों मित्र निकाले गये और उनकी देखभाल होने लगी। लोग आ-आकर उनकी सूरत देखते और मन फ़ीका करके चले जाते। ऐसे मृतक बैलों का कौन खरीदार होता?

च) दोनों मित्र कहाँ बँधे पड़े थे? (1)

छ) वहाँ उनके साथ कैसा व्यवहार हुआ? (2)

ज) बाड़े के सामने डुग्गी क्यों बजने लगी? (2)

10. **निम्नलिखित प्रश्नों में से किन्हीं चार के उत्तर लिखिए।** **2 x 4 =** (8)

ट) छोटी बच्ची को बैलों के प्रति प्रेम क्यों उमड़ आया?

ठ) लेखक लङ्कोर के मार्ग में अपने साथियों से किस कारण पिछड़ गया?

ड) मैना जड़ पदार्थ मकान को बचाना चाहती थी, पर अंग्रेज उसे नष्ट करना चाहते थे। क्यों?

ढ) 'दो बैलों की कथा' कहानी के माध्यम से कौन-कौन से नीति-विषयक मूल्य उभरकर सामने आये हैं?

ण) किस घटना ने सालिम अली के जीवन की दिशा को बदल दिया और उन्हें पक्षी प्रेमी बना दिया?

11. **निम्नलिखित काव्यांश को ध्यानपूर्वक पढ़कर पूछे गए प्रश्नों के उत्तर लिखिए।**

ऊँचे कुल का जनमिया, जे करनी ऊँच न होई।
सुबरन कलस सुरा भरा साधू निंदा सोई।।

प) ऊँचे कहलाने का अधिकार किसको है? (1)

फ) इस साखी में किस बात पर बल दिया गया है ? (2)

ब) इस दोहे का भाव स्वष्ट कीजिए ? (2)

12. **निम्नलिखित प्रश्नों में से किन्हीं चार के उत्तर लिखिए।** **2 x 4** = 8

य) इस संसार में सच्चा संत कौन कहलाता है ?

र) कवयित्री द्वारा मुक्ति के लिये किये जानेवाले प्रयास व्यर्थ क्यों हो रहे हैं ?

ल) ब्रजभूमि के प्रति कवि का प्रेम किन-किन रूपों में अभिव्यक्त हुआ है ?

व) किस शासन की तुलना तम के प्रभाव से की गयी है और क्यों ?

श) मनुष्य ईश्वर को कहाँ- कहाँ ढूंढता फिरता है ?

ष) बंद द्वार की सांकल खोलने के लिए कवयित्री ललद्यद ने क्या उपाय सुझाया है ?

13. **लेखिका की नानी की आजादी के आंदोलन में किस प्रकार की भागीदारी रही ? 'मेरे संग की औरतें' पाठ के आधार पर लिखिए।** (4)

अथवा

रामस्वरूप का अपनी बेटी को उच्च शिक्षा दिलवाना और विवाह के लिए छिपाना, यह विरोधाभास उनकी किस विवशता को उजागर करता है ?

खण्ड 'घ'

14. **निम्नलिखित विषयों में से किसी एक विषय पर दिए गए संकेत-बिंदुओं के आधार पर 200 से 250 शब्दों में निबंध लिखिए -** (10)

क) **छात्र और अनुशासन**

संकेत बिंदु :

- भूमिका
- जीवन का आरम्भिक काल
- अनुशासित जीवन
- अनुशासनहीनता के कारण
- उपसंहार

ख) **मेरा प्रिय मित्र**

संकेत बिंदु :

- भूमिका
- मित्रता का महत्व
- विशेषताएं
- उपसंहार

ग) **कम्प्यूटर: आज की जरूरत**

संकेत बिंदु :

- भूमिका
- आधुनिक युग विज्ञान का युग
- विभिन्न क्षेत्रों में कम्प्यूटर का योगदान
- उपसंहार

15. **अपने मित्र को परिश्रम का महत्त्व बताते हुए पत्र लिखिए।** (5)

अथवा

वृक्षों की कटाई को रोकने के लिए अपने क्षेत्र के वन अधिकारी को पत्र लिखिए।

16. **आगामी रविवार को, दो मित्रों के बीच पिकनिक पर चलने की योजना बनाने को संवाद के रूप में लिखिए।** (5)

अथवा

मोल-भाव को लेकर फल विक्रेता और ग्राहक के बीच का संवाद लिखिए।

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Atomic Energy Education Society

Half Yearly Examination-2019-20

Answer Key (English – IX)

Note :These are just guidelines. Other than these points, any other relevant points should be considered.

Q 1 Reading (1X8=8)

(a) the patriarchal system of society does not allow them
(b) a social burden
(c) child marriage
(d) female education
(e) neglected and confined to home
(f) is a wastage of money.
(g) the overall development of the nation has been affected negatively.
. (h) atrocities

Q 2.1 **(2X4=8)**

1) When highly qualified experts like scientists, engineers and trained persons migrate from under developed countries and settled down in advanced countries, their migration is called 'Brain Drain'.

(2) First of all, India lacks job opportunities.
. Secondly, we do not recognise talent in our people,
. Thirdly, India lacks facilities for advanced research
. Fourthly, advanced countries offer to experts a much higher standard of living than what they can get in developing countries. (Any two)

(3) All the doctors, scientists and engineers should realise that they owe some duty to their country. One country spends lakhs of rupees for their training They should not betray their country by serving foreign countries

(4) the USA, Britain, Canada and Germany

Q2.2. **(1X4=4)**

1) (c) peculiar
2) (a)vast
3) (c)betray
(4) (d) lucrative

Q3. Content -4 marks

Fluency -2 marks Accuracy-2 marks

Q4. Title- 1mark

Content and Creativity-5 Marks

Fluency-2marks

Accuracy-2marks

Q 5.A (b) myself (1X4=4)

B (a) for

C (c)gave

D (a) make

E (d) on

Q6. Before	Missing Word	After	(1X4=4)
a) written	by	Ruskin Bond	
b) It	is	a	
c) explorations	and	new	
d) discoveries	of	the	
e) character	a	boy	

Q7. Rearrange the following words or phrases to make meaningful sentences.

(Attempt any four) (1X4=4)

a) Everybody likes to eat good food.

b) It is believed that food cooked with affection is tastier.

c) More and more young people are opting for a vegetarian diet chart.

d) Vegetarianism is a steadily growing trend because of health reasons.

e) Schools must provide a healthy environment that promotes healthy eating habits.

Q 8. a) Poem-A legend of the North land, Poet-Phoebe Cary (1X4=4)

b) Saint Peter

c) St.Peter curses the old woman to be a bird, wood pecker

d) The old lady will get scanty food after boring the hardwood all day.

OR

a) Alice was the maid servant.

b) Alice asked the child not to scream or her father would wake up.

c) The child was alone because her mother was ill and her grandmother had gone to the hospital along with her mother

d) Kezia used to have nightmares at night.

Q 9. **Beehive** **(2X3=6)**

1) Albert Einstein was uncommon because he did not talk till he was two and half a years old. When he started speaking, he spoke that twice. his playmates called him “Brother Boring” He did not know what to do with them. So he played by himself most of the time.
2) First, he decided to shave daily and grow a thin moustache. Second, always to keep an attractive smile on his face
3) Kezia made a pin cushion as a gift for her father’s birthday. She stuffed it with papers. These were her father’s speech. Rooms were searched for it.. Servants were questioned. So due to this there was” a hue and cry in the house.
4) The shehnai was played traditionally in royal courts, temples and weddings. Ustad Bismillah Khan brought this instrument onto the classical stage.

Moments (2X2=4)

1) Iswaran works for Mahendra.He cooks his food and washes his clothes. He packs food for him.He entertains Mahendra by telling imaginary stories.

2) The disciple decides to stay in the kingdom of fools because everything is available for one duddu. All he wants is good cheap food. It is not a good idea because the behaviour of fools is always unpredictable. One can be in danger anytime.

3) Grandfather carried Toto in a canvas bag. Some straw was layered at the bottom of the bag. After closing the zip of the bag, there was no escape for Toto to come out of the bag.

Q 10 Content-4 marks Expression -4 marks

Q 11 Content 4 marks, Expression -4 marks

Atomic Energy Education Society

Periodic Test-II (2019 – 20)

MARKING SCHEME

CLASS : IX SUB: Mathematics

NOTE: **Award full marks to any alternate correct method.**

SECTION – A

1 (i) a (ii) b (iii) a (iv) a (v) d (vi) c (vii) b (viii) a (ix) b (x) b (xi) 90^0 (xii) $\sqrt{5}$ (xiii) $\frac{1}{5}$ (xiv) any two out of -2 ,-1, 1,2 (xv) p = 2

(xvi) II and IV (xvii) $\sqrt[3]{4}$ (xviii) (2x + 1) (2x+3) (xix) (0, - 5) (xx) 90

SECTION – B

2. $10\frac{p}{q} = 3.\overline{31}$ ½ mark

$1000\frac{p}{q} = 331.\overline{31}$ ½ mark

$990\frac{p}{q} = 328$ ½ mark

$\frac{p}{q} = \frac{164}{445}$ ½ mark

3. $2a + 3b – (4a^2 – 9b^2)$ ½ mark

$2a + 3b - (2a – 3b)(2a + 3b)$ ½ mark

$(2a + 3b) (1 + 3b – 2a)$ 1 mark

4. $\frac{(0.93^3)+(0.07^3)}{(0.93^2) - (0.93 \times 0.07)+(0.07^2)}$

$\frac{(0.93+0.07)\,(0.93^2 - 0.93 \times 0.07 + 0.07^2)}{(0.93^2) - (0.93 \times 0.07)+(0.07^2)}$ 1 mark

$= 1$ 1 mark

(OR)

$(x - 3y)(x^2 + 3xy + 9y^2)\ (x + 3y)(x^2 - 3xy + 9y^2)$ 1mark

$= (x^3 - 27y^3)\ (x^3 + 27y^3)$ ½ mark

$= x^6 - 729y^6$ ½ mark

5. $y = 2x$ 1 mark

$\Rightarrow\ 2x - y = 0$ ½ mark

$a + b + c = 1$ ½ mark

6. $5x - 20^0 + 2x - 10^0 = 180^0$ (co- interior angles) 1 mark

$x = 30^0$ 1 mark

7. In Δ AOD and Δ BOC

OA = OB (given) ½ mark

OD = OC (given) ½ mark

$\angle AOD = \angle BOC$ (vertically opposite angles) ½ mark

By SAS congruence criterion triangles are congruent ½ marks

SECTION – C

8. Correct construction carries 3 marks.

9. Given, to prove and figure 1 mark

Construction of a parallel line ½ marks

Correct proof with reasons 1½ mark

10. plotting of 4 points 2 marks $(4 \times \frac{1}{2})$

Figure : (trapezium) 1 mark

11. $2ab + 2bc + 2ca = (a + b + c)^2 - (a^2 + b^2 + c^2)$ 1 mark

$= 6^2 - 14 = 36 - 14 = 22$ 1 mark

$ab + bc + ca = 11$ 1 mark

12. $\frac{4a^2}{3bc} + \frac{9b^2}{2ac} + \frac{c^2}{6ab} = \frac{8a^3 + 27b^3 + c^3}{6abc}$ 1 mark

$= \frac{18abc}{6abc}$ 1 mark

$= 3$ 1 mark

(OR)

$\frac{8}{15} - \frac{1}{3} - \frac{1}{5} = 0$ 1 mark

$\left(\frac{8}{15}\right)^3 - \left(\frac{1}{3}\right)^3 - \left(\frac{1}{5}\right)^3 = 3 \times \frac{8}{15} \times \left(-\frac{1}{3}\right) \times \left(-\frac{1}{5}\right)$

$= \frac{8}{75}$ 1 mark

$\frac{8}{75} = \frac{x}{75}$

$x = 8$ 1 mark

13. $\angle CAD = 20^0$ 1 mark

$\angle BAC = 180^0 - (50^0 + 70^0) = 60^0$

$\angle CAE = 30^0$ 1 mark

$\angle DAE = 30^0 - \angle CAD = 30^0 - 20^0 = 10^0$. 1 mark

14. In Δ AOB and Δ DOC

∠OAB = ∠ODC (given) ½ mark

OA = OD (given) ½ mark

∠OBA = ∠OCD (alternate interior angles) ½ mark

By AAS congruence criterion Δ AOB ≅ Δ DOC , ½ mark

OC = OB (CPCT) 1 mark with reason otherwise ½ mark

Note : Alternate method by ASA

(OR)

In Δ ABE and Δ ACF

$\angle A = \angle A$ ($common\ angle$) ½ mark

$\angle AEB = \angle AFC$ (90^0) ½ mark

BE = CF ½ mark

By AAS triangles are congruent ½ mark

AB = AC and isosceles 1 mark

15. $\angle BAC + \angle DCA = 180^0$ 1 mark

$\frac{1}{2}\angle BAC + \frac{1}{2} \angle DCA = 90^0$ ½ mark

$\angle PAC + \angle PCA = 90^0$ ½ mark

$\angle APC = 180^0 - (\angle PAC + \angle PCA) = 90^0$ 1 mark

SECTION – D

16. $\angle BAC + \angle ABC + \angle BCA = 180^0$ (angle sum property)

$\angle BOC + \angle BCO + \angle CBO = 180^0$ (angle sum property) 1 mark

$\angle BOC + 90^0 - \frac{1}{2}\angle ACB + 90^0 - \frac{1}{2}\angle ABC = 180^0$ 1 mark

$\angle BOC = \frac{1}{2} (\angle ACB + \angle ABC)$ 1 mark

$\angle BOC = 90^0 - \frac{1}{2} \angle BAC$ 1 mark

17. PQ + PT > QT ½ mark

PQ + PT > SQ + ST 1 mark

ST + TR > SR ½ mark

PQ + PT + ~~ST~~ + TR > SQ + ~~ST~~ + SR ½ mark

PQ + (PT + TR) > QS + SR 1 mark

PQ + PR > SQ + SR ½ mark

18. Correct graph 3 marks

Intersection with x – axis (4,0) ½ mark

Intersection with y - axis (0,3) ½ mark

19. $\frac{7\sqrt{3}}{\sqrt{10}+\sqrt{3}} = \sqrt{30} - 3$ 1 mark

$\frac{2\sqrt{5}}{\sqrt{6}+\sqrt{5}} = 2\sqrt{30} - 10$ 1 mark

$\frac{3\sqrt{2}}{\sqrt{15}+3\sqrt{2}} = -\sqrt{30} + 6$ 1 mark

$\sqrt{30} - 3 - (2\sqrt{30} - 10) - (-\sqrt{30} + 6)$ ½ mark

$= 10 - 9 = 1$ ½ mark

20. for proving (x+1) is a factor 1 mark

$x^3 + 13x^2 + 32x + 20$

$= (x+1)(x^2 + 12x + 20)$ using long division 2 mark

$= (x+1)(x+10)(x+2)$ 1 mark

(OR)

Remainder $p(2) = x^3 + 2x^2 - 5ax - 8$

$= 8 - 10a = p$ 1½ mark

Remainder $p(3) = x^3 + ax^2 - 12x - 6$

$9a - 15 = q$ 1½ mark

Now $q - p = 15$

$19a = 38$

$a = 2$ 1 mark

21. Given, to prove,and figures of two triangles, ΔABC and ΔDEF 1 mark

Case I (AB = DE) proof 1 mark

Case II (AB > DE) proof 1 mark

Case III (AB < DE) proof 1 mark

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ATOMIC ENERGY EDUCATION SOCIETY

CLASS : IX DATE OF EXAM: 16.09.19 TIME : 3 HOURS
SUBJECT – MATHS PERIODIC TEST - II MAX MARKS : 80

ANSWER KEY

Section A (Each correct answer 1 mark)

1.D	2.C	3.D	4.D	5.B
6.D	7.C	8.C	9.B	10.A
11.B	12.B	13.D	14.D	15.B
16.D	17.D	18.B	19.D	20.B

SECTION B

(Each question carries 2 marks)

21. Let $x=3.\overline{2}=3.222....$ (i) (1/2m)
Multiplying both sides by 10,we get
$10x= 32.222...=32.\overline{2}$ (ii) (1/2m)
Subtracting (i) from (ii),we get
$10x-x=32.\overline{2} - 3.\overline{2}$ (1/2m)
$9x=29$
$x=29/9$ (1/2m)

22. $(100+4)(100+5)$
Using the identity $(x+a)(x+b)=x^2+(a+b)x+ab$ (1/2m)

So,$(100+4)(100+5)= 100^2+ 9*100+20$ (1/2m)
$=10000+900+20$
$=10920$ (1/2m)

OR

$P(1)=4(1)^3 – 3(1)^2 + 4(1) -2$ (1/2m)
$=4-3+4-2$ (1/2m)
$=8-5$ (1/2m)
$=3$ (1/2m)

23. C(0,1) ,D(0,-6), E(0,-1) , G(0,5) (1/2m*4)

24. Any two correct solutions. 1m*2=2

OR

Drawing graph 1m

Points(0,2) & (5,0) (1/2*2=2m)

25. $3y+4y + 2y = 180°$ (1/2m)
$9y=180°$ (1/2m)
$y=180°/9$ (1/2m)
$y = 20°$ (1/2m)

26. In ΔQML & ΔRMN,
LM=MN (given)

$\angle L=\angle N$ $(each\ 90°)$ (1/2m)
QM=MR (given)

So, by RHS congruence rule, $\Delta QML \cong \Delta RMN$ (1/2m)

$\angle LQM = \angle NRM$ $(CPCT)$ (1/2m)

PQ=PR (sides opposite to equal angles are equal) (1/2m)

SECTION C
(Each question carries 3 marks)

27. Correct construction (Steps of construction not required) 3m

28. $27\left(\frac{-1}{3}\right)^3 - a\left(\frac{-1}{3}\right)^2 - \left(\frac{-1}{3}\right) + 3 = 0$ 1m
or,$27\left(\frac{-1}{27}\right) - \frac{a}{9} + \frac{1}{3} + 3 = 0$ (1/2m)
or ,$2+\frac{1}{3} = \frac{a}{9}$ (1/2m)
or , $\frac{7}{3} = \frac{a}{9}$ (1/2m)
or, a=21 (1/2m)

29. RHS = $\frac{1}{2}(x+y+z)(x^2+y^2-2xy+y^2+z^2-2yz+z^2+x^2-2xz)$ (1m)
$= \frac{1}{2}(x+y+z)(2x^2+2y^2+2z^2-2xy-2yz-2xz)$ (1/2m) (1/2m)
$= (x+y+z)(x^2+y^2+z^2-xy-yz-xz)$ (1m)
$= x^3+y^3+z^3-3xyz$

OR

(a) Let x= -12 ,y =7 ,z= 5
If x +y + z =0 then, $x^3+y^3+z^3=3xyz$ (1/2m)
We observe that, x +y + z = -12 +7 + 5=0 (1/2m)
So,$(-12)^3+(7)^3+(5)^3 = 3*(-12)*7*5= -1260$ (1/2m)

(b) $(-2x+3y+2z)^2 = (-2x)^2+(3y)^2+(2z)^2+2*(-2x)(3y)+2(3y)(2z)+2(2z)(-2x)$ (1m)
$=4x^2+9y^2+4z^2-12xy+12yz-8zx$ (1/2m)

30. (i)P(3,-2),IV quadrant (1m)
(ii)P(-6,2) , II quadrant (1m)
(iii)P(-2,-3) , III quadrant (1m)

31. Given , to prove , figure and proof. (½ + ½ + ½ +1 ½m)

32. Given, figure and proof. (½ + ½ +2 m)

OR

Given, figure and proof. (½ + ½ +2 m)

33. We have, $\angle BMA = \angle 2 + \angle 3 = 20° + 35° = 55°$ (1/2m)

$= \angle 1 = \angle ABM$

But these are the alternate angles formed by transversal BM on AB & MN.

So, by converse of alternate interior angles theorem. (1m)

AB ‖ MN ---------- (i)

Now, $\angle 3 + \angle 4 = 35° + 145° = 180°$

This shows the sum of co-interior angles is 180°. (1m)

Hence, CD ‖ MN ----------(ii)

From (i) & (ii) ,we have AB ‖ CD. ■ (1/2m)

OR

$\angle GED = 126°$ (given)

or, $\angle GEF + \angle FED = 126°$

or, $\angle GEF + 90° = 126°$ $(EF \perp CD)$

or, $\angle GEF = 126° - 90° = 36°$ (1m)

AB ‖ CD & GE is transversal (given)

so, $\angle AGE = \angle GED$ $(alternate\ interior\ angles)$

so, $\angle AGE = 126°$ (1m)

Now, $\angle AGE + \angle FGE = 180°$ $(linear\ pair\ axiom)$

so, $126° + \angle FGE = 180°$

so, $\angle FGE = 180° - 126° = 54°$ (1m)

34. In ΔPAB & ΔPAC

$PB = PC$ $(given)$

$\angle PBA = \angle PCA = 90$ $(given)$ (1/2m)

PA= PA common (1/2m)

So, $\Delta PAB \cong \Delta PAC$ (RHS congruence rule) (1m)

$\angle PAB = \angle PAC$ $(CPCT)$ (1/2m)

Line AP bisects $\angle BAC$ (1/2m)

OR

(i) In ΔABD & ΔCBD (1/2m)

AB=CB, AD=CD $(given)$

BD=BD common (1/2m)

So, $\Delta ABD \cong \Delta CBD$, SSS congruence rule (1m)

(ii) Since $\Delta ABD \cong \Delta CBD$ proved above

$\angle ABD = \angle CBD$ $(CPCT)$ (1/2m)

BD bisects $\angle ABC$. (1/2m)

SECTION –D

(Each question carries 4 marks)

35. Consider x = $\frac{\sqrt{2}+1}{\sqrt{2}-1} * \frac{\sqrt{2}+1}{\sqrt{2}+1}$=(2 + 1 + 2$\sqrt{2}$)/ (2-1) = 3 + 2$\sqrt{2}$ ----------(i) (1m)

Similarly y = 3 - 2$\sqrt{2}$ ----------(ii) (1m)

Now, xy = (3 + 2$\sqrt{2}$)(3 - 2$\sqrt{2}$) = 1 & x+ y = 3 + 2$\sqrt{2}$ +3 - 2$\sqrt{2}$ = 6 (1m)

Squaring on both sides , $(x+y)^2 = 6^2$ (1m)

$x^2+y^2 = 34$ ----------(iii)

from (i), (ii) & (iii)

$x^2+y^2+xy = 35$

OR

$\left(\frac{81}{16}\right)^{\frac{-3}{4}} X \left[\left(\frac{25}{4}\right)^{\frac{-3}{2}} \div \left(\frac{5}{2}\right)^{-3}\right]$

$=\left[\left(\frac{3}{2}\right)^{4}\right]^{\frac{-3}{4}} * \left\{\left[\left(\frac{5}{2}\right)^{2}\right]^{\frac{-3}{2}} \div \left(\frac{5}{2}\right)^{-3}\right\}$ (1m)

$= \left(\frac{3}{2}\right)^{-3} * \left[\left(\frac{5}{2}\right)^{-3} \div \left(\frac{5}{2}\right)^{-3}\right]$ (1m)

$=\left(\frac{2}{3}\right)^{3} * \left[\left(\frac{5}{2}\right)^{-3+3}\right]$ (1m)

$=\frac{8}{27} * 1 = \frac{8}{27}$ (1m)

36. 3a + 2b= 5c (given)
Taking cube on both the sides, we have,
$(3a + 2b)^3=(5c)^3$ (1/2m)
or,$(3a)^3+(2b)^3 + 3(3a)(2b)(3a+2b) = 125c^3$ (1m)
using $(x + y)^3 = x^3 + y^3 +3xy(x+y)$
Or, $27a^3+8b^3+18ab(3a+2b) = 125c^3$ (1/2m)
Or, $27a^3+8b^3+18ab(5c) =125c^3$ (1/2m)
Or, $27a^3+8b^3+90abc=125c^3$ (1/2m)
Or, $27a^3+8b^3+90(0) =125c^3$ (1/2m)
Or, $27a^3+8b^3+-125c^3 =0$ (1/2m)

37. Plotting points (2m)
Shape: Triangle (1m)
Points are collinear (1m)

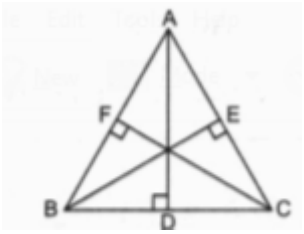
OR

Plotting points (2m)
Since the opposite sides of rectangle are equal, the co-ordinates of the fourth vertex are (3, 5). (2m)

38. Representing on the number line (1m)
Representing on graph (1m)
On a number line there is only ONE solution. (1m)
On a Cartesian plane there are INFINITELY many solutions. (1m)

39. Let $\angle P : \angle Q : \angle R = 3x : 2x : x$
So, 3x+2x+x = 180° (angle sum property of a Δ) (1/2m)
So, x= 30° (1/2m)
So, 3x=90°, $2x = 60°$ & $x = 30°$ (1m)
$\angle P + \angle Q = \angle PRT + \angle TRS$ (1m)
90° + 60° =90° +$\angle TRS$ (1/2m)
∠TRS= 60° (1/2m)

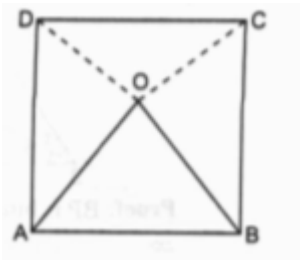
40.



(1/2m)

In ΔABC , AD, BE & CF *are the altitudeson sides* BC, CA & AB *respectively.*
To Prove: AD+BE+CF<AB+BC+CA
Proof: Since ⊥ line segment is the shortest line segment,then, (1/2m)
When AD ⊥ BC *we have*,
AB > AD & AC> AD
So, AB+AC > AD+AD
AB+AC> 2AD----------(i) (1/2m)
Similarly when BE ⊥ AC ,then
BA+BC > 2BE -------(ii) (1/2m)
& when CF⊥AB,then
CA+CB>2CF----------(iii) (1/2m)
Adding (i) ,(ii) & (iii)
We get, AB+AC+BA+BC+CA+CB > 2AD+2BE+2CF (1/2m)
2AB+2BC+2CA > 2AD+2BE+2CF (1/2m)
AD+BE+CF < AB+BC+CA (1/2m)

OR



(1/2m)

Construction: Join OC & OD. (1/2m)
Proof: Given that ΔOAB is an equilateral Δ.Each angle of ΔOAB is equal to 60. (1/2m)
i.e $\angle OAB = \angle OBA = 60°$
But $\angle DAB = \angle CBA = 90°$($Each\ angle\ of\ a\ square\ is\ aright\ angle$) (1/2m)
$\therefore \angle DAO = 90° - 60° = 30°$ (1/2m)
Similarly ∠CBO=30°
Now in ΔAOD & Δ BOC (1/2m)
AD=BC (All sides of a square are equal)
$\angle DAO$=∠CBO=30° (proved above)
AO=OB (All sides of an equilateral triangle are equal)
$\therefore$ΔAOD ≅ Δ BOC ($SAS\ congruence\ rule$) (1/2m)
So, OD=OC (CPCT) (1/2m)
$\Delta OCD\ is\ an\ isosceles\ \Delta.$

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Atomic Energy Education Society
PERIODIC TEST – II (2019-20)
Marking scheme (Rawatbhata center only)
Class: IX Science M.M:-80M

Any relevant answer can be accepted.

Q.NO	VALUE POINTS/ EXPECTED ANSWERS	MARKS	TOTAL
1	(b)sublimation	1	1
2	(c)Nitrogen	1	1
3	(c)high pressure, low temperature	1	1
4	(b) B	1	1
5	(c) cell wall	1	1
6	(b) Population growth	1	1
7	(c) farmer use quality seeds, adopt irrigation ,use fertilizers	1	1
8	(a) Gravity	1	1
9	(d) 1.67 N	1	1
10	(d) Motion of a car at constant speed in rectilinear motion.	1	1
11	a		
12	a		
13	(b)Both A and R are correct statements but reason is not the correct explanation of the assertion.	1	1
14	Air < exhaust from chimney < cotton < water < honey < chalk < iron	1	1
15	Solute-Iodine Solvent-alcohol	½ ½	1
16	Any two relevant points	½ + ½	1

17	1 Newton = $\frac{1\ kgx\ 1\ m}{s^{-2}} = \frac{1000\ gx\ 100\ cm}{s^{-2}} = 10^5$ dyne		
18	Displacement = 0	1	1
19	$v^2 - u^2 = 2gh$ $0 - (50)^2 = 2x(-10) \times h$ h= 125m	 ½ ½	1
20	The acceleration produced in the earth due to the force exerted on it by the moon is very small as the mass of the earth is very large. Hence the movement of the earth towards the moon is not noticed.	1	1
21	Proper brushing and cleaning to remove dirt and loose hair, well ventilated sheds , balanced diet with roughage and concentrates, regular vaccination etc. OR a. Mitochondria b. lysosomes c. Chloroplasts		3
22	450K - 400K=50K Method- distillation. Correct explanation	1 ½ 1½	3
23	Vol. of alcohol=5.6 mL Vol. of water=75 mL Total volume=(75+5.6)=80.6 m L Concentration of the solution= Vol. of solute ---------- X 100 Vol. of solution $= \frac{5.6}{80.6} \times 100$ =6.94%	½ ½ ½ 1 ½	3
24	i)In beaker A-swelling of the raisins In beaker B –shrinkage of raisins	½ + ½	3

	ii) A-hypotonic solution, B-hypertonic solution	1+1	
25	Sieve tube cells are tubular cells with perforated walls. At both the ends of sieve tubes, the perforated sieve plate is present. Through these sieve plates the food materials can move in both directions. OR Refer to NCERT-page no-72(6.2.2-copmlex permanent tissue or any relevant answer.	1 2 OR 1 +1 +1	3
26	Organic farming is a farming system with minimal or no use of chemicals as fertilizers, herbicides, pesticides etc. and with a minimum input of organic manures, recycled farm/waste and use of bio-agents. Bio-agents are the culture of blue-green algae in preparation of bio-fertilizers, neem leaves or turmeric etc. Specifically used in grains storage, As bio-pesticides with healthy cropping systems as they do not harm the environment so called as eco-friendly/friendly.	1½ 1½	3
27	Any relevant reasons.(NCERT-page no-206)	1+1+1	3
28	A body is said to be in motion [or moving] when its position changes continuously with respect to a stationary object taken as reference point. Graph Derivation (Refer NCERT Book 8.5.3 page 108)	1 2	3
29	Derivation (Refer NCERT Book 10.2 page 135) Any two difference between G and g	2 ½ + ½	3
30	a)Explanation based on first law of motion b) Explanation based on third law of motion	1 1	3

	c) Weight W = mg g depends on the location and the mass of the planet. g = 0 at the centre of the earth and in space. In those locations where g = 0, weight = 0.	1	
31	a. i)Evaporation – The process by which liquid water changes into gaseous water vapour at all temperatures. ii)Diffusion – The process by which a substance move from the region of its higher concentration to the region of its lower concentration b) i. Because the air contains a lot of moisture,so the rate of evaporation decreases. ii. Water vapourcondense after coming in contact with the cool surface of the glass containing cool water. iii. Perspiration keeps our body cool as sweat evaporates and leads to cooling effect.	1 1 1 1 1	5
32	i)NCERT-page no-59 ii) a. Chromoplasts b)Chloroplasts iii) a) mitosis b)meiosis v)Accumulation of foreign materials and worn out cell organelles, no digestion of nutrients, no damage to the cell during any disturbance in the cellular metabolism(any one)	1 ½ + ½ ½ + ½ 2	5
33	i)Mixture of common salt and water -Mixture of milk and water ii)Mixture of chalk powder with water -milk with water iii)Mixture of common salt and water iv)Mixture of chalk powder and water v) Mixture of chalk powder and water	½ + ½ ½ + ½ 1 1 1	5
34	I)Any correct example	1	5

	ii) Columnar epithelium iii) function of tendon – join muscle to bone function of ligament – join bone to bone OR Please refer to NCERT page no-69.	1 1½ 1½ OR 2+3	
35	a) Correct definition b) Derivation (Refer NCERT Book 9.4.1 page 119) c)F =ma f= 1500 X (-1.7) = - 2550 N OR a)The sum of momenta of the two objects before collision is equal to the sum of momenta of the two objects after the collision provided there is no external unbalanced force acting on them. b)Explanation based on second law of motion c)(i) Zero (both are at rest) (ii) Momentum gained by bullet = m_1v_1 $= \frac{10}{1000}$ X 100 = 1 kgm/s (iii) $m_1u_1 + m_2u_2 = m_1v_1 + m_2v_2$ $0 = 1 + \frac{500}{1000} v_2$ v_2 = -2m/s	1 3 1 OR 1 1 1 1 ½ ½	5
36	(a) Uniform accelerated motion (b) Uniform motion (c) BC represents uniform retarded motion. So, retardation = $\frac{20m/s}{24s}$ = 0.83 m/s^2	1 1 1	5

	(d) Distance travelled by body from O to C = Area of v-t graph (OC) with time axis = Area of trapezium OABC $= \frac{[(20-8)+44]X\,20}{2}$ = (12 + 44) X 10 = 560 m (e) Average speed = $\frac{Totaldisplacement}{totaltime}$ $= \frac{560}{44} = 12.72$ m/s OR (a) 14 minutes. (b) 40 m + 20 m = 60 m (c) Between 8 to 10 and 14 to 16 minutes. (d) 2 + 2 + 2 = 6 minutes. (e) Speed = Total distance covered/ total time taken $= \frac{50m}{2\,\min} = 25$ m/minute $= \frac{25x60}{1000}$ km/h = 1.5 km/h	1 1 OR 1 1 1 1 ½ ½	

ATOMIC ENERGY EDUCATION SOCIETY

PERIODIC TEST II(2019)

MARKING SCHEME

Class: IX **Sub: Science**

Question no	answer	marks
1to 10	1 c 2 b 3 c 4 a 5 a 6 a 7 b 8 c 9 b 10 a	1x10
11	Nutrients required by plants in small quantities	1
12	suberin	1
13	a)Both assertion and reason are correct	1
14	b) If both assertion and reason are true but reason is not the correct explanation of the assertion.	1
15	b) Both A and R are correct statements but reason is not the correct explanation of the assertion.	1
16	Exchange of gases or any other correct function	1
17	Compost prepared by using earthworms.	1
18	Displacement	1
19	Steel	1
20	Correct statement of universal law of gravitation.	1
21	culturing five to six different species of fish in a single pond no competition among fish or any other correct ans. Lack of availability of good quality seeds	1 1 1
22	a) it allows entry and exit of certain selected substances in the cell b) rod shaped structures in the nucleus of a cell made up of DNA and proteins visible during cell division	1 1 1
23	a) water will come out of the cell/shrinkage/exosmosis b) water will enter the cell/ swell up/endosmosis c) no net gain or loss of water OR ANY three correct differences (1/2 m each) like: Prokaryotic cell doesn't have a well-defined nucleus where as a eukaryotic cell has Prokaryotic cell doesn't have membrane bound organelles but eukaryotic cell has Prokaryotic cell has single chromosome whereas a eukaryotic cell has more than one chromosome	1 1 1 ½ x6

24.	a) heat supplied is continuously used up in overcoming the forces of attraction between the particles This heat is absorbed without showing any increase in temperature and is known as latent heat b) i)300K, ii)197^{0}C OR No Boiling point of pure water is 100^{0}C at 1 atmosphere and hence it freezes at 0^{0}C. Water which boils at 102 degree Celsius is not pure hence it will freeze below 0^{0}C	1 1 1 1 1 1
25.	i) squamous epithelium ii) cuboidal epithelium iii) meristematic tissue /apical meristem iv) smooth muscle v) nervous tissue vi) cartilage	½ x6
26.	a. Copper is made of same kind of atoms whereas copper sulphate is made of different kinds of atoms. b. salt solution, copper sulphate solution (any other suitable answer)	2 1
27	Graph Derivation (Refer NCERT Book 8.5.3 page 108)	1 2
28	Newton's second law of motion: correct statement Correct reason	1$\frac{1}{2}$ 1$\frac{1}{2}$
29	V=u+gt students may use g=9.8 m/s^2 or g= 10 m/s^2 (v=0 and a=-g) U=49 m/s or 50 m/s S= ut+ $\frac{1}{2}$ at^2 same can be solved using v^2-u^2=2as S= 122.5 m or s=125m **OR** V= 36 km/h = 10 m/s V=u+at a=2 m/s^2 S= ut+ $\frac{1}{2}$ at^2 S= 25 m	½ 1 ½ 1 ½ 1 ½ 1
30	336K-325K=11K Method- Fractional distillation. Correct explanation-NCERT-page no:-22	1 ½ 1½
31	a)I) Adipose ii) Sclerenchyma iii)Nerve cell /neuron b) correct diagram and labelling NCERT fig 6.11 A page 76	1 x3 2
32	a) Correct definition Three states b) a) some solids decompose or some like sugar are charred on heating during evaporation some impurities may remain dissolved in the solution even after filtration	½ ½ x3 1 1

	and on evaporation they contaminate solid c) high pressure, low temperature OR a) three correct factors with explanation b) C has made desired solution Mass% by volume= (mass of solute/volume of solution)x 100 = (50/100)x100 = 50% mass by volume	 ½ x 2 1x3 ½ 1 ½
33	a) correct flow chart NCERT Text book page no 22 fig.2.11 b) foam- dispersed phase gas, dispersion medium solid solid sol dispersed phase -solid , dispersion medium - solid	3 ½ x4
34	a) unwanted plants that grow with the main crop Any two correct examples- *Xanthium, Chenopodium* etc. any correct method like hand pulling /use of weedicides b) definition of hybridisation and genetic modification OR a) stings less high honey collection capacity breeds well or any other correct advantage b) water pollution, change the pH of soil or any other correct disadvantage	1 ½ x 2 1 1+1 1 1 1 1+1
35	For Correct graphical Derivation (Refer NCERT Book 8.5.2 page 108) $v^2-u^2=2as$ V=19.6 m/s (with solution)	3 ½ 1 ½
36	Law of conservation of momentum Its derivation(Refer NCERT Book 9.6 page 123/124 Initial momentum = 500 kgm/s Final momentum = 800 kgm/s Force = 50 N	1 2 ½ ½ 1

ATOMIC ENERGY EDUCATION SOCIETY

HALF YEARLY EXAMINATION- 2019-20

ANSWER KEY

CLASS: IX **SUBJECT: SOCIAL SCIENCE**

SECTION A

1. d) Rousseau
2. c) An executive made up of five members.
3. a) Unit of currency in France.
4. b) Cheka
5. a) Vladimir Lenin
6. d) Duma
7. d)Duns
8. c) Kannad
9. a) Wular Lake
10. b) Middle and Lower Course
11. c) Kanyakumari
12. c) Sri Lanka
13. c) Primary Health Centre
14. a) Sarva Siksha Abhiyaan
15. c) Disguised Unemployment
16. d) The measuring units of land areas in villages.
17. b) Republic Day
18. a) Motilal Nehru
19. b) Each person has one vote and each vote has one value.
20. d) Gram Sabha

SECTION B

21. i) Father Gapon was the leader of the procession of workers who marched towards the winter palace in St. Petersburg. When this procession of workers reached the winter palace it was attacked by the police over 100 workers were killed and about 300

wounded. This incident is known as Bloody Sunday started a series of events leading to the 1905 revolution.

ii) Strikes took place, universities closed down and student bodies staged walkouts.

iii) Lawyers doctors and engineers and other middle-class workers formed unions and demanded a constituent assembly. (Any three valid points)

OR

Liberals, radicals and conservatives. (Any three valid points)

22. i) The ideas of liberty equality and fraternity were the most important legacy of French revolution.

ii)These ideas spread from France to the rest of Europe during the 19^{th} century where feudal systems were abolished.

iii)Colonized people in Africa,Asia and Latin America reworked the idea of freedom from bondage into their movements to create a sovereign state

iv) Tipu Sultan and Raja Ram Mohan Roy are two examples of Indian individuals who responded to the idea of liberty and equality. (Any three valid points)

23. Himalayan rivers

i) These are perennial rivers.

ii) They receive water from the rain as well as from the melted snow from the mountains.

iii) They are comparatively long and longer course.

iv)They cause much erosional activity and form the deltas.

v) The important rivers Indus, Ganga and Brahmaputra.

Peninsular Rivers

i) These are seasonal rivers.

ii) These rivers are rain fed.

iii) They have shorter course.

iv) They cause less erosional activity.

v) The important rivers are Kaveri, Krishna and Godavari.

24. i) Bhabar

ii) Terai

iii) Bhangra

iv) Khadar (Any three to be explained.)

OR

i) India is favorably located in relation to Eurasia Africa and Australia.

ii) It occupies central position in the eastern hemisphere

iii) India's location has many economic advantages. It helped in establishing economic and cultural contacts with the east and west ancient times

iv) It is favorably located on worlds highway of trade and commerce. (Any three points)

25. i) Tube-wells are setup for irrigation and farmers use pesticides and chemical fertilizers in farming which are produced in Industries.

ii) Farm machineries like tractors,harvesters, threshers which made ploughing and harvesting faster are also manufactured in the industries.

iii) HYV seeds.

26. i) Human capital is superior to other resources like land and physical capital since human resources can utilize land and capital for improvement.

ii) Land and capital cannot become useful on their own

iii) They cannot improve each other without the intervention of humans. (Any three points.)

27. i) The system of apartheid divided the people and abled them on the basis of their skin color.

ii) All the non-whites were treated as inferiors and were deprived of their right to vote.

iii) they were forbidden from living in white areas

iv) Trains busses taxis hotels hospitals schools etc. were all separate for whites and blacks. (Any three to be explained.)

28. i) It contains the philosophy on which the entire constitution has been built.

ii) It provides a standard to examine and evaluate any law and action of the government to find out whether it is good or bad.

iii) It is the soul of Indian Constitution. It reads like a poem on Democracy. (Any three points to be explained.)

SECTION C

29. i) Bolsheviks were totally opposed to private property.

ii) Most industries and banks were nationalized in November 1917.

iii) Land was declared a social property.

iv) In cities, they enforced the partition of large houses according family requirements.

v) They banned the use of old tittles of aristocracy.

vi)The Bolsheviks party was renamed the Russian Communist Party. (Any five points)

OR

i. Despotic rule of LOUIS XVI
ii. Division of French Society.
iii. Rise in Prices
iv. Inspiration of philosophers.
v. Growth of middle class.
vi. The immediate cause. (Any five to be explained)

30. i) A lake helps to regulate the flow of a river.

ii) During heavy rainfall, it prevents flooding and during dry season it helps to maintain an even flow of water.

iii) Lakes can be used for developing hydel power.

iv) They help in maintaining a moderate climate.

vi) They are ableto maintain the aquatic ecosystem

vii) They enhance the natural beauty and help in developing tourism and provide recreated.

31. i) Unemployment leads to wastage of manpower resources.

ii) people who are an asset for the economy turn into a liability.

iii) there is feeling of hopelessness and despair among the youth.

iv) People do not have enough money to support their family. Inability of educated people who are willing to work, to find gainful employment implies a great social waste.

v) Unemployment tends to increase the economic overload.

vi)When a family has to live on their subsistence levels, there is general decline in its health status and a rising withdrawal from the school system. (Any five points to be explained.)

OR

i) Investment in education of human resource results in the formation of human capital.

ii) One can earn higher income because of higher productivity of the more educated thus contributing towards human capital formation

iii) Investmentin human resource via education and medical care ca give higher rates of return in future.

iv)Health sector development can prove useful for the economy.

v) Healthier the people, the more they work and the more they produce and earn

vi)A healthy person capacity to work increases and he becomes more productive and hence earns more.

32. i) Most small farmers have to borrow money to arrange for the capital. they borrow from large farmers or the village money lenders or the traders who supply various inputs for cultivation.

ii) The rate of interest on such loans is very high and these farmers are in great stress to repay the loans taken.

iii) In contrast to the small farmers, medium and large farmers have their own savings from farming.

iv) They use this savings to arrange for next years capital and make high profits by selling surplus production.

v) Sometimes they deposit their savings in a bank or lend their money to small farmers etc. (Any five points.)

33. The constitution of a country is a set of written rules that are accepted by all the people living together in a country. It is a supreme law that determines the relationship among people living in a territory and also the relationship between the people and the government. (2Marks)

Need of Constitution: (3 Marks)

i) It generates a degree of trust and coordination that is necessary for different kinds of people to live together.

ii) It specifies how the government will be constituted and various powers to take various decisions will be allotted to whom.

iii) It lays down the limits on the powers of the government and tell us what the rights of the citizens are.

iv) It also expresses the aspirations of the people about creating the society.

34. i) Democracy is a government in which the rulers are elected by the people.

ii) In a democracy, the final decision-making power must rest with those elected by the people.

iii) It is in a democracy that free and fair elections are held and the people have a choice to change the existing rulers.

iv) It is based on a fundamental principle of political equality.

v) It is more accountable form of government.

vi) It improves the quality of decision making.

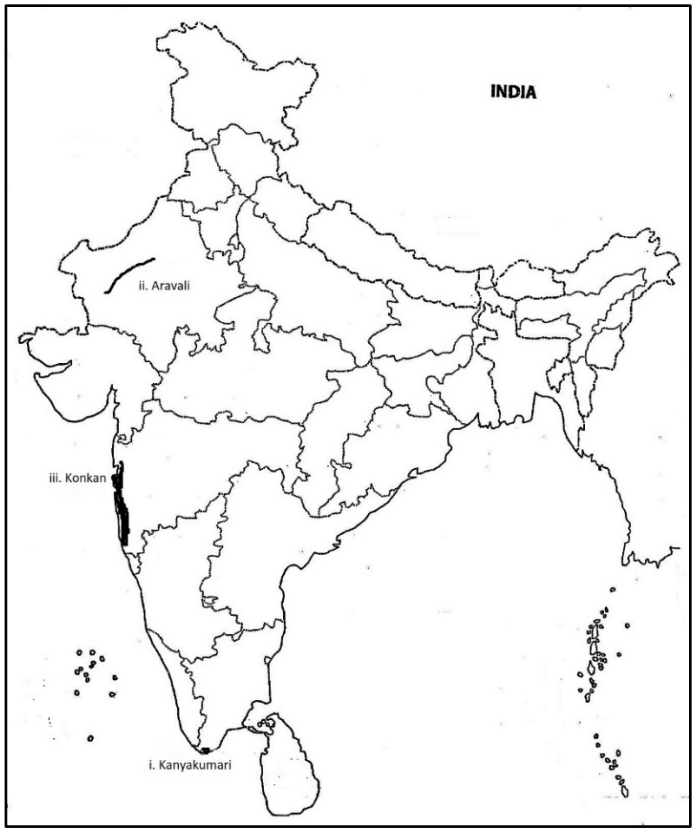
vii) It provides a method to deal with differences and conflicts.

viii) It also enhances the dignity of citizens.

SECTION D

35.

36.



MARKING SCHEME

HAIF YEARLY EXAMINATION – 2019-20

CLASS IX SOCIAL SCIENCE MAX.MARKS:80

General Instructions:

i. The marking scheme provides general guidelines to reduce subjectivity and maintain uniformity.

ii. Marking may be done as per the instructions provided in the marking scheme.

iii. However answers given in the marking scheme is not exhaustive. Any points found relevant to the questions may be given due credit.

iv. Each point is to be explained well so as to make the idea clear. Answers written in short points without explanation may not be given full credit.

SECTION A (20x1=20)

1. b) Peasants (1)
2. a) Liberty (1)
3. b) To Nationalise the banks (1)
4. b) Kolkhoz (1)
5. b) Tajikistan (1)
6. c) Strait (1)
7. c) Purvanchal (1)
8. a) Sambhar (1)
9. b) Non democratic (1)
10. d) Paying money to government officials to get water. (1)
11. a) Estonia (1)
12. c) Citizens (1)
13. b) It expresses the broad consensus of its time. (1)
14. c) Women (1)
15. d) Money (1)

16. b) Deforestation (1)

17. d) Tripura (1)

18. a) 6 – 14 years (1)

19. b) They lack in education or necessary skill. (1)

20. c) Both (a) and (b) (1)

SECTION – B (8X3=24)

21. (3x1=3)

- Long years of war drained the financial resources
- Extravagant court
- Helped the thirteen American colonies to gain independence

OR (3x1=3)

- John Locke J. J Rousseau put forward ideas of freedom and equal laws and opportunity
- John Locke – Two Treatises of Government – refuted the doctrine of divine and absolute right of the monarch.
- Rouseau –proposed a form of government based on social contract between the people and their representatives.
- Montesquieu – The Spirit of the Laws- proposed division of power within the government between the legislature, executive and judiciary.
- These ideas were discussed intensively and spread among people.

(Any three valid points)

22. (To be assessed as a whole) (3)

- India has a long coast line.
- Has central location between east and west asia.
- The Deccan peninsula protrudes into the Indian Ocean making it significant for international trade.
- India – favourite destination of traders of the world.

23. (To be assessed as a whole) (3)

Legal Frame Work Order - August 2002

- Could dismiss the national or provincial assemblies
- National Security Council headed by military officials to supervise the civilian cabinet.
- Elections were to be held to the national and state assemblies, but final powers rested with the military officers and General Musharraf.

24. (3X1=3)

- Based on consultation and discussion
- When large number of people are involved , less chance of making mistakes.
- Allows ways of correcting its mistakes.
- Improves the dignity of citizens. (Any three points)

25. (3x1=3)

- Large size and diversity of the country
- People were emerging from the status of subjects to that of citizens.
- Problems related to partition.
- Integration of princely states. (Any three points)

26. (3x1=3)

- Excessive use of chemical fertilizers results in loss of soil fertility.
- Tube well irrigation reduces the level of water table.
- Pollution due to the use of insecticides and pesticides.
- Chemical fertilizers kill some useful bacteria.
- Over irrigation results in salination of the soil.
- Over all impact on the environment. (Any three points)

27. (To be assessed as a whole) (3)

- Yes, land distribution is uneven.
- Out of 450 families, 240 families cultivate land less than 2 hectres in size.
- 140 dalit families are landless.

- The remaining 60 families of medium and large farmers cultivate more than 2 hectres of land.
- A few farmers have more than 10 hectres or even more.
- Half of the areas of the village is covered with plots quite large in size.

28. (3x1=3)

- Primary sector: Agriculture, forestry, animal husbandry, fishing, poultry farming,
- and mining.
- Secondary sector: Manufacturing and construction.
- Tertiary sector: Trade, transport communication, banking, education, health, tourism services, insurance etc.

29. Changes brought about by the Bolsheviks: (5x1=5)

- Abolished right to private property.
- Industries and banks were nationalized.
- Land was declared social property.
- Allowed peasants to seize the land of nobility.
- Enforced the partition of large houses according to family requirement, in cities.
- Trade unions were kept under party control.
- Criticism was not allowed.

OR (5x1=5)

- Stalin headed the ruling Communist Party in the USSR after Lenin
- Introduced firm emergency measures to deal with the shortage of food grains.
- Established state controlled collective farms – Kolkhoz, by taking away peasants land and eliminating Kulaks.
- The party forced all peasants to cultivate in collective farms.
- Peasants opposed the collectivization programme and destroyed their livestock.
- In spite of collectivization, production did not increase due to lack of cooperation from peasants.

- Grain supplies were hit by bad harvests.
- USSR faced one of the most devastating famines in soviet history.

30. (5x1=5)

- Issued laws placing the maximum ceiling on wages and prices.
- Meat and bread were rationed.
- Forced peasants to transport their produce to the cities and sell it at prices fixed by the government.
- More expensive flour was forbidden, and forced all to eat the plain d'galite.
- Equality was sought to be practiced through forms of speech and address.

31. (5x1=5)

Significance of Himalayas.

- Act as a climatic divide
- Storehouse of forest wealth and wild life.
- Facilitator of monsoon rain.
- Give rise to perennial rivers.
- Prevents the extreme cold winds from the north of Asia.
- Have a number of places of tourist attraction.
- Mountain passes provided passages to the ancient travelers.

32. (5x1=5)

- The Ganga river is over 2500 km long, the longest river in India.
- It has many tributaries joining the river from both the sides.
- Rises in the Gangotri glacier in Uttarakhand; headstream – Bhagirathi; Joined by Alakananda at Devaprayag.
- At Haridwar, Ganga comes out from the mountains to the plains
- Its delta is the world's largest and fast growing.

- It continues to flow eastwards till Farakka in W. Bengal ; then enters Bangladesh and joins with Brahmaputra and flows into Bay of Bengal forming the Sundarban Delta, the largest delta in the world.

33. (5x1=5)

- Preamble to the Constitution.
- Justice
- Liberty.
- Equality
- Fraternity
- Sovereignty
- Secular
- Democratic
- Socialist.
- Socialist.

(Any five points to be explained making the concept clear.)

34. (5x1=5)

- Education opens new horizon for the people, provides new aspiration and develops values of life.
- Contributes towards the growth of society.
- Enhances the national income, cultural richness and increases the efficiency of governance.
- Develops the existing human resource into capital formation.
- Increases the productivity of the nation.
- Provides vital input for the growth of ones personality.

(Any five points making the concept clear.)

35. Map Questions (History) (3)

(i) Bordeaux and Nantes (2X1=2)

(ii) A. America (1)

36. Map Questions (Geography) (3)

(i) A. Lake Chilka (1)

(ii) a. Vindhya Range b. Kanchenjunga (2)

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परमाणु ऊर्जा शिक्षण संस्था

अणुशक्तिनगर, मुंबई

आवधिक परीक्षा - 2, उत्तर संकेत/बिंदु एवं अंक विभाजन (2019-20)

कक्षा - नौवीं विषय- हिंदी(कोर्स-अ) अधिकतम अंक- 80

निर्देश - (1) व्याकरण आदि त्रुटियों को ध्यान में रखते हुए उचित अंक काटकर उत्तर-पुस्तिका की जाँच कीजिए ।

(2) प्रश्नों के उत्तर संकेत मात्र हैं ।

(खंड-क)

1.		निम्नलिखित गद्यांश को पढ़कर पूछे गए प्रश्नों के उत्तर लिखिए ।	
	I.	दूरदर्शी व्यक्ति सफल क्यों होते हैं ? उत्तर - जो लोग दूरदर्शी होते हैं, वे आनेवाले समय को पहले से ही भाँप लेते हैं । इसी कारण वे अपनी योजना पहले ही बना लेते हैं और हर कसौटी पर सफल सिद्ध होते हैं ।	(2)
	II.	समय के साथ नहीं चलनेवाले का क्या नुकसान होता है ? उत्तर - समय के साथ नहीं चलनेवाला अपने जीवन में असफल साबित होता है । समय के साथ नहीं चलने से अनेक समस्याएँ उसे घेर लेती हैं । समय की गति एवं दिशा को जिसने नहीं समझा, उसके हाथ केवल असफलता ही लगती है । ऐसा व्यक्ति अमीर से कंगाल भी बन सकता है ।	(2)
	III.	मानव जीवन का सबसे बड़ा नियामक घटक क्या है और कैसे है ? उत्तर - मानव जीवन का सबसे बड़ा नियामक घटक समय होता है क्योंकि समय ही सर्वाधिक निर्णायक होता है । जीवन की किसी भी दौड़ में समय रहते जो आगे निकल गया, वह सफल हो गया । थोड़े-से समय के आगे-पीछे होने से परिस्थितियाँ एवं परिणाम पूरी बदल जाते हैं ।	(2)

	IV.	'स्वयं पर निर्भर रहनेवाला' आत्मनिर्भर है, तो 'दूर की सोचनेवाला' क्या होगा ? उत्तर - दूर की सोचनेवाला दूरदर्शी होगा ।	(1)
	V.	अंतरिक्षयान कोलंबिया में भारतीय मूल की महिला अंतरिक्षयात्री कौन थीं ? उत्तर - अंतरिक्षयान कोलंबिया में भारतीय मूल की महिला अंतरिक्षयात्री कल्पना चावला थीं ।	(1)
2.		निम्नलिखित काव्यांश को पढ़कर पूछे गए प्रश्नों के उत्तर लिखिए ।	
	I.	कविता के लिए उपयुक्त शीर्षक लिखिए ? उत्तर - कविता के लिए उपयुक्त शीर्षक होगा - 'मजदूर का योगदान' ।	(1)
	II.	'अंबर' शब्दों के दो पर्यायवाची शब्द लिखिए ? उत्तर - अंबर- आकाश, गगन । (इसी प्रकार उपयुक्त अन्य उत्तर लिखने पर भी परीक्षक स्वविवेक से अंक प्रदान करें।)	(1)
	III.	मजदूरों की कई पीढ़ियाँ निरन्तर किस कार्य में लगी हुई हैं ? उत्तर - मजदूरों की अनगिनत पीढ़ियाँ निरन्तर धरती का रूप सँवारने, उसे सुन्दरतम बनाने में लगी हुई हैं ।	(1)
	IV.	अगणित बार धरा पर स्वर्ग बनाने से कवि का क्या अभिप्राय है ? उत्तर - अगणित बार धरा पर स्वर्ग बनाने से कवि का अभिप्राय यह है कि मजदूरों ने अनंत काल से असंख्य बार स्वर्ग के सुख - सौन्दर्य को धरती पर उतारने का काम किया है । प्राकृतिक आपदाओं से, भूकंप से, आँधियों से जब-जब विनाश हुआ, मजदूरों ने फिर-फिर उन विध्वंसों की जगह नया और सुन्दर सृजन किया ।	(2)
	V.	गंगा की निर्मल धारा को कौन, कहाँ से और किस लिए ले आए ?	(2)

		उत्तर - गंगा की निर्मल धारा को मजदूर ही हिमगिरि चीर कर धरती की प्यास बुझाने के लिए धरती पर ले आए । दुर्गम राहों के बीच नदी के लिए मार्ग बनाने का जोखिम भरा कार्य मज़दूरों ने ही किया, जिससे गंगा की अमृतमय धारा ने धरती के अनगिनत जलहीन क्षेत्रों को जल से तृप्त किया ।	
		खण्ड 'ख'	
3.		निर्देशानुसार उत्तर दीजिए -	
	क.	'निरादर' शब्द में प्रयुक्त उपसर्ग व मूल शब्द लिखिए । निर्+आदर ।	(1)
	ख.	'सह' उपसर्ग से दो शब्द बनाइए । सहयोगी, सहपाठी। अन्य कोई (परीक्षक स्वविवेक से अंक प्रदान करें।)	(1)
	ग.	'गरमाहट' शब्द में प्रयुक्त प्रत्यय व मूल शब्द लिखिए । गरम + आहट ।	(1)
	घ.	'आवट' प्रत्यय से दो शब्द बनाइए । परीक्षक स्वविवेक से अंक प्रदान करें ।	(1)
4.		निम्नलिखित समस्तपदों का विग्रह कर समास का नाम लिखिए -	
		पंचवटी, यथाशक्ति, नीलकंठ पाँच वटों का समाहार - द्विगु समास, शक्ति के अनुसार - अव्ययी भाव समास, नीला है कंठ जिसका (शिव) - बहुब्रीहि समास अथवा नीला कंठ - कर्मधारय समास	(3)
5.		अर्थ के आधार पर वाक्य-भेद बताइए -	
	क	अब बैठकर अपना काम करो। - आज्ञावाचक वाक्य ।	(1)
	ख	क्या तुम पढ़ोगे ? - प्रश्नवाचक वाक्य ।	(1)

6.		निर्देशानुसार वाक्य परिवर्तन कीजिए -	
	क	रवि ने अपना काम नहीं किया है।	(1)
	ख	यदि बारिश होती है तो फसल अच्छी होती है।	(1)
7.		परीक्षक स्वविवेक से अंक प्रदान करें ।	(1)
8.		अलंकार बताइए -	
	अ)	उत्तर - यमक अलंकार ।	(1)
	आ)	उत्तर - रूपक अलंकार ।	(1)
	इ)	उत्तर - मानवीकरण अलंकार ।	(1)
		खण्ड 'ग'	
9.		निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़कर पूछे गए प्रश्नों के उत्तर लिखिए ।	
	च)	दोनों मित्र कहाँ बँधे पड़े थे ? उत्तर - दोनों मित्र कँजीहौस में बँधे पड़े रहे ।	(1)
	छ)	वहाँ उनके साथ कैसा व्यवहार हुआ ? वहाँ उनके साथ बुरा व्यवहार हुआ । सारे दिन उन्हें खाने के लिए चारे का तिनका तक न मिला । एक बार पानी दिया गया । वे बहुत कमजोर हो गये थे ।	(2)
	ज)	बाड़े के सामने डुग्गी क्यों बजने लगी ? उत्तर - हीरा और मोती की निलामी की घोषणा करने के लिए बाड़े के सामने डुग्गी बजने लगी, जिससे लोग वहाँ उन्हें खरीदने के लिए एकत्र हो जाएँ ।	(2)
10.		निम्नलिखित प्रश्नों के उत्तर के लिए परीक्षक स्वविवेक से अंक प्रदान करें । 2+2+2+2 =	8
11.		निम्नलिखित काव्यांश को ध्यानपूर्वक पढ़कर पूछे गए प्रश्नों के उत्तर	

		लिखिए।	
	प)	ऊँचे कहलाने का अधिकार किसको है ? उत्तर - उच्च कुल में जन्म लेकर कोई महान नहीं बनता । जो व्यक्ति उच्च और महान कार्य करते हैं, वही ऊँचे कहलाने के अधिकारी हैं ।	(1)
	फ)	इस साखी में किस बात पर बल दिया गया है ? उत्तर - इस साखी में अच्छे और नेक कर्म पर बल दिया गया है । व्यक्ति अच्छे कर्मों से ही सम्मान पाता है, उसकी जाति या उसका कुल नहीं देखा जाता । अपने महान कर्मों से ही वह महान बन जाता है ।	(2)
	ब)	इस दोहे का भाव स्वष्ट कीजिए ? उत्तर - अच्छे कर्मों से व्यक्ति की पहचान होती है । ऊँचे कुल में जन्म लेकर नीच कर्म करनेवाला निंदनीय माना जाता है । शराब निंदनीय है, चाहे उसे सोने के कलश में ही क्यों न रखा जाए ।	(2)
12.		निम्नलिखित प्रश्नों के उत्तर के लिए परीक्षक स्वविवेक से अंक प्रदान करें । लिखिए । 2+2+2+2 =	8
13.		**<u>परीक्षक स्वविवेक से जांच करके अंक प्रदान करें ।</u>**	(4)
		खण्ड 'घ'	
14.		किसी एक विषय पर निबंध लिखने पर परीक्षक स्वविवेक से मूल्यांकन करें । अंक विभाजन निम्नलिखित है - भूमिका - 1 विषयवस्तु - 6 भाषा की शुद्धता - 2	(10)

		उपसंहार - 1	
15.		किसी एक विषय पर पत्र लिखने पर परीक्षक स्वविवेक से मूल्यांकन करें । अंक विभाजन निम्नलिखित है - प्रस्तुति - 1 विषयवस्तु - 3 भाषा-विन्यास -1	(5)
16.		किसी एक विषय पर संवाद लिखने पर परीक्षक स्वविवेक से मूल्यांकन करें ।	(5)
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