THE CANDIDATE | Question Booklet Number

2023

PARTICULARS TO BE FILLED IN BY THE CANDIDATE		Question Booklet Number
Name of the Candidate	Mohd Khalid	5027974
Roll Number		
Application Number		
Name of the Centre		NNHQ
Centre Code		
Date of the Test		2233
Signature of the Candidate		

Maximum Marks : 85 Test Duration : 02 hours

INSTRUCTIONS

- Complete all entries on the cover page and put your signature in the space provided.
- Use only Ball Point Pen (black / blue) for making entries on the Question Booklet and the OMR Answer Sheet.

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SEAL

Section-I

3. Work hard lest you ..... fail.

(a) might (b) could

(c) may (d) should

Be careful ..... what you do.

(a) with (b) by

(c) in (d) to

The passive of "Who teaches you English ? " is :

(a) By whom you are taught English.

(b) By whom English is taught to you.

(c) Who taught you English.

(d) Whom do you teach English by.

4. The indirect narration of "He said to me, do you know me ?"

(a) He asked me whether I knew him.

(b) He enquired if I know him.

(c) He asked me that if I knew him.

(d) He said to me if I knew him.

The word with correct spelling is :

(a) Affedevit

(b) Afidevit

(c) Affdevit

(d) Affidavit

7. The antonym of the word 'Sapient' is .....

(a) Wise [synonym]

(b) Foolish

(c) Wasteful

(d) Safe

8. The correct synonym of the word 'Forestall' is .....

(a) Avoid

(b) Frighten

(c) Prevent

(d) Disappoint

both a & c [will be deleted]

8. Fill in the blank with the correct preposition :
She came ..... the library.

(a) in

(b) into

(c) at

(d) none of the above

9. Choose the correct alternative which completes the given statement and change it into indirect narration.

The teacher said to me, "May you pass".

(a) The teacher wanted me that I might pass.

(b) The teacher told me that I might pass.

(c) The teacher wished me that I might pass.

(d) The teacher wished me that I might have passed.

[P.T.O.

11. نظم ''دیوالی کے دیپ جلے'' کے شاعر کا کیا نام ہے؟

(a) روش صدیقی
(b) علامہ اقبال
(c) رگھوپتی سہائے فراق گورکھپوری
(d) حفیظ جالندھری

12. ''شاعرِ مشرق'' کس کو کہا جاتا ہے؟

(a) فیضؔ
(b) ذوقؔ
(c) حسرتؔ
(d) علامہ اقبال

13. مندرجہ ذیل شعر میں 'خورشید کی پلکیں' کسے کہا گیا ہے؟

اور ہر صبح کو یہ کھیل رچا جاتا ہے ان کو خورشید کی پلکوں سے چنا جاتا ہے۔

(a) سورج کو
(b) شعاعوں کو
(c) گرمی کو
(d) شبنم کو

14. عالم کی جمع کیا ہے؟

(a) علم
(b) علوم
(c) اعلام
(d) علماء

15. قرۃ العین حیدر سے متعلق خطوط کا مجموعہ مندرجہ ذیل میں سے کون سی کتاب ہے؟

(a) کفِ گل فروش
(b) آگ کا دریا
(c) دامانِ باغباں
(d) میرے بھی صنم خانے

16. لفظ پیچ و تاب کا معنی کیا ہے۔

(a) خوف کھانا
(b) گروہ
(c) بے قرار ہونا
(d) شاد ہونا

17. حروف جار کہتے ہیں:

(a) وہ لفظ جس پر اضافت کا زیر آتا ہو۔
(b) جملے بنانے میں مدد کرنے والے الفاظ کو۔
(c) دو لفظ یا دو جملوں کو جوڑنے والے الفاظ کو۔
(d) جس لفظ کے مختلف معنی ہوں، اس کو۔

18. ناول ''اختر النسا بیگم'' کتنے سال کی عمر میں لکھا گیا:

(a) بارہ سال
(b) تیرہ سال
(c) چودہ سال
(d) پندرہ سال

18. निम्नलिखित पंक्तियां किस कवि द्वारा रचित हैं ? कवि का नाम बताइये :

''पुष्प–पुष्प से तंद्रालस लालसा खींच लूँगा मैं,
अपने नव जीवन का अमृत सहर्ष सींच दूँगा मैं''

(a) सूरदास

(b) सूर्यकांत त्रिपाठी 'निराला'

(c) नरोत्तम दास

(d) जया जादवानी

19. निम्नलिखित पंक्तियों में कौनसा अलंकार होगा ?

''व्योम को छूते हुए दुर्गम पहाड़ों के शिखर ।
वे घने जंगल जहाँ रहता है तम आठों पहर ।।''

(a) मानवीकरण अलंकार

(b) अतिशयोक्ति अलंकार

(c) उत्प्रेक्षा अलंकार

(d) रूपक अलंकार

20. जिन शब्दों में लिंग, वचन, कारक आदि के कारण कोई परिवर्तन नहीं होता वे क्या कहलाते हैं ?

(a) क्रिया कहलाते हैं ।

(b) वचन कहलाते हैं ।

(c) अव्यय कहलाते हैं ।

(d) वाच्य कहलाते हैं ।

[P.T.O.

21. बाबा भारती का सफेद घोड़ा दौड़ रहा था – इस वाक्य में विशेषण का कौनसा भेद है ?

(a) परिणामबोधक विशेषण

(b) संख्यावाचक विशेषण

(c) गुणवाचक विशेषण

(d) सार्वनामिक विशेषण

22. 'आँख का अन्धा नाम नयनसुख' लोकोक्ति का क्या अर्थ है ?

(a) गुण के विरुद्ध नाम का होना

(b) आँख की रोशनी जाना

(c) नामकरण करना

(d) संतुष्ट होना

23. 'प्रेमचंद के फटे जूते' रचना के रचनाकार कौन हैं ?

(a) श्यामाचरण दुबे

(b) हरिशंकर परसाई

(c) प्रेमचंद

(d) कृष्णा सोबती

24. 'नरोत्तम दास' किस काव्यधारा के कवि थे ?

(a) रामभक्ति काव्यधारा

(b) रीतिकालीन काव्यधारा

(c) कृष्ण काव्यधारा

(d) इनमें से कोई नहीं

25. 'सावधान' का सही सन्धि-विच्छेद है –

(a) साव+धान

(b) सा+वधान

(c) स+आवधान

(d) स+अवधान

Section-II

26. Asteroids are found between the orbits of :

(a) Mars and Jupiter

(b) Earth and Mars

(c) Earth and Venus

(d) Jupiter and Saturn

27. Which of the following statement is not true ?

(a) Friction can be reduced by converting sliding friction into rolling friction.

(b) Friction in air and water can be reduced by streamlining the shape of the object.

(c) A polished surface will have less friction.

(d) Friction can be reduced to zero.

28. The planet which takes the least time to revolve around the Sun is :

(a) Mercury

(b) Uranus

(c) Jupiter

(d) Neptune

29. The weight of an object will be zero at :

(a) The surface of the earth

(b) The centre of the earth

(c) At 100 km above the surface of the earth

(d) At 100 km below the surface of the earth

30. Which of the following is a weedicide ?

(a) Urea (b) 2, 4-D

(c) Cowdung (d) NPK

31. Sodium and Potassium are stored in Kerosene due to their

(a) Low Reactivity

(b) High Reactivity

(c) Softness

(d) Low Melting point

32. Growth hormone is secreted by ..... gland.

(a) Thyroid

(b) Pituitary

(c) Adrenal

(d) Pancreas

33. Minimum audible frequency for human ear is

(a) 200 Hz

(b) 2000 Hz

(c) 20,000 Hz

(d) 20 Hz

34. Non-metals react with oxygen to form

(a) Acidic oxide or Neutral oxide

(b) Basic oxide

(c) Amphoteric oxide

(d) None of the given

35. Which of the following occurs during lightening ?

(a) Acid rain

(b) Green house effect

(c) Nitrogen fixation

(d) Smog

36. The pores in the bread is due to gas bubbles of

(a) Oxygen

(b) Nitrogen

(c) Carbon dioxide

(d) Nitrogen dioxide

37. The process by which dead remains of plants and animals are decomposed into nitrogen is called

(a) Desertification

(b) Deamination

(c) Nitrification

(d) Amination

38. The most reactive metal is

(a) Copper

(b) Silver

(c) Potassium

(d) Calcium

39. The burning of LPG is an example of

(a) rapid combustion

(b) explosion

(c) slow combustion

(d) none of the given

40. Friction due to fluid flow is called

(a) force

(b) pressure

(c) friction

(d) drag

41. Identify the substance which is tough, porous and black. It is almost a pure form of carbon

(a) Crude oil
(b) Coal tar
(c) Coal gas
(d) Coke

42. The increase in concentration of which gas is not responsible for Global Warming ?

(a) Nitrogen
(b) Methane
(c) Carbon dioxide
(d) Sulphur dioxide

43. Which of the following techniques of irrigation should be used to save water ?

(a) Canal irrigation
(b) Drip irrigation
(c) Lift irrigation
(d) Water Wheel

44. While baking cakes, yeast multiplies rapidly and produces..... gas.

(a) Hydrogen
(b) Nitrogen
(c) Oxygen
(d) Carbon dioxide

45. Which of the following metals catch fire on reaction with air ?

(a) Magnesium

(b) Sodium

(c) Calcium

(d) Aluminium

46. Same kind of plants grown and cultivated on a large scale at a place is called

(a) weed

(b) crop

(c) herb

(d) shrub

47. Polymers are made up of small units called

(a) layers

(b) molecules

(c) cells

(d) monomers

48. Which gas is evolved when magnesium reacts with dilute hydrochloric acid ?

(a) Carbon dioxide

(b) Nitrogen

(c) Oxygen

(d) Hydrogen

49. The lowest temperature at which a substance catches fire is called its

(a) absolute temperature

(b) critical temperature

(c) super temperature

(d) ignition temperature

50. External fertilization is not found in

(a) Hen

(b) Fish

(c) Frog

(d) Starfish

51. Which of the following statement is not correct ?

(a) friction acts on both the surface

(b) static friction is less than sliding friction

(c) rolling friction is less than sliding friction

(d) friction can be reduced

52. The device used to test the charge on an object is :

(a) lightning conductor

(b) galvanometer

(c) ammeter

(d) electroscope

53. The impression of an image persists on the retina for about :

(a) $\left(\frac{1}{16}\right)^{th}$ of a second

(b) $\left(\frac{1}{24}\right)^{th}$ of a second

(c) $\left(\frac{1}{20}\right)^{th}$ of a second

(d) $\left(\frac{1}{60}\right)^{th}$ of a second

54. The junction of optic nerves and the retina in the eye is called :

(a) yellow spot

(b) choroid

(c) blind spot

(d) pupil

55. Which amongst the following is responsible for acid rain ?

(a) NO_2 and CO_2

(b) CO and CH_4

(c) NO_2 and SO_2

(d) SO_3 and NO_3

Which of the following is a rational number ?

(a) $\sqrt{3}$

(b) $\sqrt{3} + 3$

(c) 0.113513513...

(d) 0.573057300573...

If a polyhedron has 6 vertices and 12 edges. What is the number of faces it has ?

(a) 6

(b) 8

(c) 12

(d) 18

If a cuboidal box has height, length and width as 20 cm, 15 cm and 10 cm respectively. Find the total surface area is

(a) 1000 cm^2

(b) 1200 cm^2

(c) 1300 cm^2

(d) 1400 cm^2

59. A shopkeeper allows 20% off on the marked price of goods and still gets a profit of 25%. What is the actual cost to him of an article with marked price Rs. 300 ?

(a) Rs. 220

(b) Rs. 180

(c) Rs. 225

(d) Rs. 160

60. The sum of the measures of the external angles of a regular hexagon is

(a) 540°

(b) 720°

(c) 1440°

(d) 360°

61. A rhombus and a square have the same area. The side of the square is 4 cm. If one diagonal of the rhombus is 8 cm, find the length of the other diagonal.

(a) 12 cm

(b) 9 cm

(c) 15 cm

(d) 24 cm

62. Find the compound interest which Rozy will get on Rs. 4096, if she gave it for 18 months at 12.5% per annum, interest being compounded half yearly.

(a) Rs. 800

(b) Rs. 817

(c) Rs. 813

(d) Rs. 823

63. Find the value of $(5a^2) \times (-10ab^2) \times (-2.1a^2b^2)$ for $a = 1$ and $b = \frac{1}{2}$.

(a) $\frac{107}{32}$

(b) $\frac{109}{32}$

(c) $\frac{105}{32}$

(d) $\frac{32}{105}$

64. If 15 added to the square of a number is 6 less than the square of its successor. Then, the number is

(a) 6

(b) 10

(c) 12

(d) 8

65. A bag contains 5 red, 8 black and 7 white balls. One ball is chosen at random, the probability that the chosen ball is not black is :

(a) $\frac{2}{3}$

(b) $\frac{2}{5}$

(c) $\frac{3}{5}$

(d) $\frac{1}{3}$

[P.T.O.

66. The value of $16x^2 - 24xy + 9y^2$, when $x = \frac{1}{4}$ and $y = \frac{1}{3}$ is

(a) 2 (b) −1

(c) 1 (d) 0

67. The area of a trapezium is 28 sq cm and one of its parallel sides is 8 cm. If the distance between the parallel sides is 4 cm, then the other parallel side is

(a) 8 cm (b) 7 cm

(c) 9 cm (d) 6 cm

68. How many persons can be accommodated in a hall of dimension 20m×16m×4.5m, assuming that each person requires $4m^3$ of air ?

(a) 360 (b) 320

(c) 310 (d) 240

69. The value of expression, $\frac{\left(p^{m+n}\right)^3 \times \left(p^{n+l}\right)^3 \times \left(p^{m+l}\right)^3}{\left(p^m \times p^n \times p^l\right)^5}$ is equal to

(a) $p^{-(m+n+l)}$

(b) $p^{(2m+2n+2l)}$

(c) p^{m+n+l}

(d) p^{mln}

70. Which one of the following is a true statement ?

(a) 0 is the addition identity for natural number

(b) Every rational number has its reciprocal

(c) Integers are closed for subtraction

(d) Real numbers are closed for division

71. The value of

$$\left(\frac{1}{\sqrt{9}-\sqrt{8}} - \frac{1}{\sqrt{8}-\sqrt{7}} + \frac{1}{\sqrt{7}-\sqrt{6}} - \frac{1}{\sqrt{6}-\sqrt{5}} + \frac{1}{\sqrt{5}-\sqrt{4}}\right) \text{ is}$$

(a) 0

(b) 1

(c) 5

(d) $\frac{1}{3}$

72. If principal = Rs. 100000, rate of interest = 10% compounded half-yearly, then amount after 6 months is :

(a) 115000

(b) 105000

(c) 205000

(d) 95000

13. The digits of a two-digit number differ by 3. If the digits are interchanged, and the resulting number is added to the original number, we get 143. What is the original number ?

(a) 36 (b) 76

(c) 85 (d) 89

14. The value of $\left(\sqrt{18225} + \sqrt{182.25} + \sqrt{1.8225} + \sqrt{0.018225}\right)$ is

(a) 1.49985 (b) 14.9985

(c) 149.985 (d) 1499.85

15. The height of two right circular cylinders are same. Their volumes are $16\pi m^3$ and $18\pi m^3$ respectively. The ratio of their base radii is

(a) 4:9 (b) 9:4

(c) 16:81 (d) 2:3

16. Which of the following relationship is named as Euler's formula :

(a) F + E = V + 2

(b) V + E = F + 2

(c) F + V = E + 2

(d) F + V = E – 2

77. Find the smallest number by which the number 2401 must be divided to obtain a perfect cube :

(a) 8 (b) 4

(c) 6 (d) 7

78. Sum of the digits of a two digit number is 9. When we interchange the digits, it is found that the resulting new number is greater than the original number by 27. What is two digit number ?

(a) 63 (b) 36

(c) 45 (d) 54

79. Which is having the largest value : 2^{250}, 3^{150}, 5^{100} and 4^{200}

(a) 4^{200} (b) 5^{100}

(c) 2^{250} (d) 2^{150}

80. If $a = \sqrt{2} + 1$ and $b = \sqrt{2} - 1$, then the value of $\frac{a^2 + ab + b^2}{a^2 - ab + b^2}$ is

(a) $32 - 4\sqrt{2}$

(b) $32 + 4\sqrt{2}$

(c) 0

(d) $\frac{7}{5}$

81. 8 men can do a piece of work in 10 days. How long will 10 men take to complete the same work ?

(a) 12 days

(b) 8 days

(c) 7 days

(d) 6 days

M D
8 → 10
10 → n
$\frac{8 \times 10}{10} = n$
8 = n

82. The polynomial $2x^3 - 5x^2 + mx + n$ is divisible by $x^2 - 4$, if

(a) (m, n) = (2, 3)

(b) (m, n) = (8, – 20)

(c) (m, n) = (– 8, 20)

(d) (m, n) = (4, 7)

$x^2 - 4 = 0$
$x^2 = 4$
$x = 2$ [out of syllabus]
$2 \times 8 - 5 \times 4 + 2m + n$
$16 - 20 + 2m + n = 0$
$-4 + 2m + n = 0$
$16 - 80 + 2m + h = 0$
$64 + 2m + h = 0$
$2m + h = -64$
$2m = -64 - n$

83. Simplify : $\frac{4^{-3} \times a^{-5} \times b^{-4}}{4^{-5} \times a^{-8} \times b^{3}}$

(a) $16 \frac{a^3}{b^{-7}}$

(b) $8 \frac{a^2}{b^{-7}}$

(c) $\frac{2a^{-13}}{b^{-7}}$

(d) $\frac{a^8}{b^{-1}}$

[will be deleted]

$4^{-3+5} \times a^{-5+8} \times b^{-4-3}$
$4^2 \times \frac{a^3}{b^7}$
$\frac{16\ a^3}{4^{-3+5} \times \frac{a^{-5+8}}{b^{3-4}}}$
$4^2 \times \frac{a^3}{b^{-7}}$

84. The dimensions of a room are 10m × 8m × 6m. The cost of white washing the 4 walls of the room at rate of Rs. 15 per m^2 is

(a) Rs. 2300

(b) Rs. 7200

(c) Rs. 3240

(d) Rs. 5240

85. Two identical cubes, each of total surface area 54 cm^2 are joined end to end. What will be the total surface area of the figure so formed ?

(a) 54 cm^2

(b) 108 cm^2

(c) 90 cm^2

(d) 180 cm^2

PARTICULARS TO BE FILLED IN BY THE CANDIDATE		Question Booklet Number
Name of the Candidate	Mohd Khalid	8107869
Roll Number	8307594	
Application Number	90229162	HNNX
Name of the Centre	S.H Senior Secondary	
Centre Code	122	
Date of the Test	26-06-2022	303
Signature of the Candidate	Khalid	

Maximum Marks : 85 Test Duration : 02 hours

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Section - I

1. He ..... very little when there are strangers present.

(a) had always spoken

(b) was always speaking

(c) is always speaking

(d) always speaks

2. Choose the most appropriate article to fill in the blank.

I want to be ..... M.P.

(a) the

(b) an

(c) a

(d) no article

3. The synonym of the word 'coward' is :

(a) valiant

(b) chicken

(c) stalwart

(d) hero

If he wants to win the race, he'll have to push ..... five people.

(a) around

(b) past

(c) away

(d) in

..... differences on matters of principles, they all agree on the demand of hike in salary.

(a) Despite of their

(b) Despite off their

(c) Despite for their

(d) Despite their

Which sentence is correct ?

(a) I haven't read none of the letters.

(b) I have read any of the letters.

(c) I don't have read any of the letters.

(d) I haven't read any of the letters.

7. Change the following sentence into Indirect speech :

The Commander said, "Soldiers cease fire".

(a) The Commander ordered the soldiers to cease fire.

(b) The Commander pleaded the soldiers to cease fire.

(c) The Commander said that cease fire.

(d) The Commander exclaimed to cease fire.

8. If you had come to the theatre last night you ..... the play.

P.P.

(a) will enjoy

(b) had enjoyed

(c) would have enjoyed

(d) must have enjoyed

9. The man as well as his wife and children ..... in the accident.

(a) were injured

(b) has injured

(c) was injured

(d) is injured

10. ہاکی کے جادوگر میجر دھیان چند الہ آباد میں ۲۹ راگست ..... کو پیدا ہوئے۔

(a) 1905 (b) 1904

(c) 1906 (d) 1903

11. حب الوطنی کا پیغام کس نظم میں دیا گیا ہے؟

(a) ماں کا خواب (b) دیوالی کے دیپ جلے

(c) فلسطینی بچے کے لئے لوری (d) یہ ہے میرا ہندوستان

12. قرۃ العین کی ابتدائی تعلیم کہاں ہوئی؟

(a) علی گڑھ (b) دہلی

(c) دہرہ دون (d) لاہور

13. 'رسالہ تہذیب الاخلاق' جاری کیا تھا؟

(a) حالی نے (b) سرسید نے

(c) شبلی نے (d) غالب نے

14. میگھ دوت اور شکنتلا تصانیف کس کی ہیں:

(a) کالی داس (b) کبیر داس

(c) سورداس (d) دیوداس

15. ''آوارہ گرد کی ڈائری'' سفرنامہ کس کا لکھا ہوا ہے:

(a) مرزا فرحت اللہ بیگ (b) ملا واحدی

(c) غلام عباس (d) ابن انشاء

16. پیرس میں برکت اللہ بھوپالی کس اخبار کے ایڈیٹر تھے۔

(a) الہلال (b) غدر

(c) الانقلاب (d) اسلامک فریٹرنٹی

17. رفیع احمد قدوائی اعلیٰ تعلیم کے لئے کہاں گئے تھے۔

(a) دلی (b) علی گڑھ

(c) انگلستان (d) امریکہ

'उपानह' शब्द का सही अर्थ क्या होगा ?

(a) पहनना

(b) हाथ

(c) जूता

(d) उपकार

'पिता के पत्र पुत्री के नाम' पुस्तक के लेखक हैं –

(a) महात्मा गांधी

(b) राजेन्द्र प्रसाद

(c) कमलेश्वर

(d) पं. जवाहर लाल नेहरू

निम्नलिखित पंक्तियाँ किस कवि के द्वारा रचित हैं ?

"मेघ आए बड़े बन-ठन के सँवर के ।
आगे-आगे नाचती-गाती बयार चली,
दरवाज़े - खिड़कियाँ खुलने लगीं गली-गली"

(a) तुलसीदास

(b) रसखान

(c) सर्वेश्वर दयाल सक्सेना

(d) कबीरदास

'को' से किस कारक चिह्न का बोध होता है ?

(a) कर्म कारक

(b) करण कारक

(c) सम्प्रदान कारक

(d) अधिकरण कारक

22. ''कूलन में केलि में कछारन में कुंजन में क्यारिन में कलित कलीन किलकंत है।'' इस काव्य-पंक्ति में कौन-सा अलंकार है ?

(a) अनुप्रास अलंकार
(b) रूपक अलंकार
(c) यमक अलंकार
(d) श्लेष अलंकार

23. 'तरंगिणी' का पर्यायवाची कौनसा है ?

(a) संसार
(b) पर्वत
(c) नदी
(d) सूर्य

24. 'अंगारे उगलना' मुहावरे का सही अर्थ है –

(a) मुँह से अंगारे निकालना
(b) कठोर वचन कहना
(c) आग का फैल जाना
(d) ज्वालामुखी फूट जाना

25. 'आजन्म' शब्द में कौन-सा समास है ?

(a) कर्मधारय समास
(b) बहुव्रीहि समास
(c) अव्ययी भाव समास
(d) तत्पुरुष समास

Section - II

26. A large number of small objects present between Mars and Jupiter and revolves round the sun :

(a) Comets
(b) Asteroids
(c) Meteors
(d) Meteorites

27. Bakelite and Melamine are examples of :

(a) Thermoplastics
(b) Thermosetting plastics
(c) Nylon
(d) Rayon

28. Which of the following is known as artificial silk ?

(a) Nylon
(b) Rayon
(c) Polyester
(d) Taser Silk

29. Iron objects are Galvanized by coating it with .....

(a) Chromium
(b) Zinc
(c) Aluminium
(d) Magnesium

30. Which part of eye controls the amount of light entering into it ?

(a) Iris
(b) Cornea
(c) Pupil
(d) Retina

31. Which of the following forces is a contact force ?

(a) Force of gravity
(b) Magnetic Force
(c) Force of friction
(d) Electrostatic Force

32. Splitting of white into its constituent colours is known as :

(a) dispersion
(b) interference
(c) scattering
(d) diffraction

33. Chlorofluorocarbons (CFC's) are used in :

(a) Refrigerators
(b) Aerosol sprays
(c) Air conditioners
(d) All the above

34. Which is not a blended fibre ?

(a) Polycot Poly + cot
(b) Cotswool
(c) Polyester P
(d) Terycot Tery + Cot

35. Which poisonous gas is formed as a result of incomplete combustion ?

(a) Carbon monoxide
(b) Coal gas
(c) Carbon dioxide
(d) Nitrogen oxide

36. The two objects rubbed against each other :

(a) will lose electrons
(b) will gain electrons
(c) one will lose and other will gain electrons
(d) none of these

37. Which of the following disease is not caused by bacteria ?

(a) Citrus Canker Yeast rust – virus
(b) Typhoid
(c) Measles
(d) Cholera

38. Which of the following chemicals is used as preservative ?

(a) Sodium Carbonate
(b) Sodium Sulphate
(c) Sodium bicarbonate
(d) Sodium Benzoate

39. Unit of inheritance in living organisms is :

(a) Nucleus
(b) Nucleolus
(c) Chromosome
(d) Gene

40. Which of the following organism is able to fix atmospheric nitrogen ?

(a) Lactobacillus
(b) Rhizopus
(c) Penicillium
(d) Rhizobium

41. A disease which is caused by a protozoan is :

(a) Malaria
(b) Polio
(c) Smallpox
(d) Tuberculosis

42. Nuclear membrane is absent in :

(a) Blue green algae cell (b) Animal cell

(c) Plant cell (d) Human cheek cell

43. An endocrine gland which is attached to the brain is :

(a) Adrenal (b) Thyroid

(c) Pituitary (d) Pancreas

44. The process of loosening of the soil is called :

(a) Tilling (b) Harvesting

(c) Spraying (d) Weeding

45. Bacteria are ..... organism.

(a) Multicellular (b) Tricellular

(c) Bicellular (d) Unicellular

46. The best electrical conductor is :

(a) Silver (b) Gold

(c) Copper (d) Aluminium

47. The main gas present in LPG is :

(a) Methane
(b) Propane
(c) Hexane
(d) Butane

48. The species which are at the verge of extinction :

(a) Endemic
(b) Extinct
(c) Endangered
(d) None of these

49. Children gain height during :

(a) Menarche
(b) Puberty
(c) Menopause
(d) Adolescence

50. The voice box is also called :

(a) Larynx
(b) Mouth
(c) Stomach
(d) Heart

51. The water holding capacity is the highest in :

(a) Sandy soil

(b) Loamy soil

(c) Clayey soil

(d) Black soil

52. The force acting on a unit area of a surface is called -

(a) Pressure

(b) Energy

(c) Power

(d) Inertia

53. Loudness of sound is determined by -

(a) time period

(b) frequency of vibrating body

(c) amplitude of the vibrating body

(d) number of vibration per second

54. A prism produces -

(a) Reflection of light

(b) Dispersion of light

(c) Scattering of light

(d) Refraction of light

55. When electrolysis of water is carried out, water is decomposed into -

(a) oxygen gas (b) hydrogen gas

(c) both hydrogen and oxygen (d) oxygen and carbon dioxide gas

56. A line graph which is a whole unbroken line is called a :

(a) Linear Graph (b) Pie Chart

(c) Histograph (d) Bar-graph

57. If the cost price of 18 chairs be equal to the selling price of 16 chairs, find the loss or gain per cent.

(a) Gain 12% (b) Loss 12.5%

(c) Loss 12% (d) Gain 12.5%

58. In what time will Rs. 4400 become Rs. 4576 at 8% per annum interest compounded half yearly ?

(a) $\frac{2}{3}$ years

(b) $\frac{1}{2}$ years

(c) 3 years

(d) $\frac{1}{3}$ years

59. Two circular cylinders of equal volumes have their height in the ratio 1:2. The ratio of their radii is :

(a) $\sqrt{2} : 1$

(b) $\sqrt{3} : 1$

(c) $\sqrt{5} : 1$

(d) $\sqrt{7} : 1$

60. The simple interest on a certain sum for $1\frac{1}{2}$ years at 7% per annum exceeds the simple interest on the same sum for 6 months at 10% per annum by Rs. 38.50. The sum is :

(a) Rs. 500

(b) Rs. 600

(c) Rs. 700

(d) Rs. 800

61. If a polyhedron has 6 vertices and 12 edges, what is the number of faces it has ?

$F+V=E+2$
$F+6=12+2$
$F+6=14$
$F=14-6$
$F=8$

(a) 6 (b) 8
(c) 12 (d) 18

62. A and B working together can do a piece of work in 12 days. B alone can do the same work in 20 days, then A alone can do it in :

(a) 30 days (b) 25 days
(c) 35 days (d) 20 days

63. A tap fills a tank in 6 hours. Another tap empties the full tank in 9 hours. How long will it take to fill the tank, if the tank is empty and both the taps are open ?

$A=6$, $B=9$, $\frac{1\times6}{3}=\frac{3}{3}$, $6^3=9^3$, $A=6$, $B=9$

(a) 12 hours (b) 14 hours
(c) 16 hours (d) 18 hours

64. An item marked at Rs. 840 is sold for Rs. 714. The discount % is :

$840-714$, $\frac{126}{840}\times100$, 42, $\frac{42}{126}$, $\frac{3}{}$

(a) 10% (b) 15%
(c) 20% (d) 25%

65. The algebraic expression $3x + 2y + 6$ is a :

(a) Monomial

(b) Binomial

(c) Trinomial

(d) None of the above

66. The value of $1 + \dfrac{1}{1 + \frac{1}{1+\frac{1}{9}}}$ is

(a) $\frac{29}{19}$

(b) $\frac{10}{19}$

(c) $\frac{29}{10}$

(d) $\frac{10}{9}$

67. The area of a rhombus whose diagonals are of length 10 cm and 8.2 cm is :

(a) 820 cm^2

(b) 82 cm^2

(c) 41 cm^2

(d) 410 cm^2

68. Find the smallest number by which the number 392 must be multiplied to obtain a perfect cube :

(a) 9

(b) 5

(c) 7

(d) 3

69. The sum of $1 + 3 + 5 + 7 + 9 + 11 + 13 + 15 + 17 + 19$ is :

(a) 11^2 (b) 10^2

(c) 110 (d) 120

70. How many natural numbers lie between 25^2 and 26^2 ?

(a) 52 (b) 51

(c) 50 (d) None of these

71. What will be the side of the rhombus whose diagonals are 12 cm and 16 cm long ?

(a) 15 cm (b) 10 cm

(c) 20 cm (d) 18 cm

72. The solution of $0.25(4f - 3) = 0.05\,(10f - 9)$ is :

(a) 0.6 (b) 60

(c) –60 (d) –0.6

73. Which of the following statement is true ?

(a) Natural numbers are closed under division

(b) Integers are closed under division

(c) Whole numbers are not closed under division

(d) Rational numbers are closed under division

74. If Rs. 782 be divided into 3 parts, proportional to $\frac{1}{2}, \frac{2}{3}, \frac{3}{4}$, then the first part is :

(a) Rs. 182

(b) Rs. 190

(c) Rs. 196

(d) Rs. 204

75. The value of $\left(\frac{3^{-2}}{5^{-1}}\right)^{-2}$:

(a) $\frac{81}{25}$

(b) $\frac{9}{25}$

(c) $\frac{-25}{81}$

(d) $\frac{-25}{9}$

76. The length of the diagonal of a square is 25 cm. Its area is :

(a) 625 cm^2

(b) 312.5 cm^2

(c) 652.5 cm^2

(d) 321.5 cm^2

77. Sum of all interior angles of an octagon is :

(a) 360°
(b) 720°
(c) 900°
(d) 1080°

78. Two coins are tossed randomly. Number of all possible outcomes is :

(a) 0
(b) 1
(c) 2
(d) 4

79. The compound interest on Rs. 16,000 for 1½ years at 10% per annum compounded half yearly, is :

(a) Rs. 2,522
(b) Rs. 2,500
(c) Rs. 2,532
(d) Rs. 2,523

80. $(y + a)(y - b) =$

(a) $y^2 - (a + b)y - ab$
(b) $y^2 - (a - b)y - ab$
(c) $y^2 + (a + b)y - ab$
(d) $y^2 + (a - b)y - ab$

81. For any polyhedron, Euler's formula is :

(a) $F + V = E - 2$
(b) $F + V - E = 2$
(c) $F + E = V - 2$
(d) $F - V + E = 2$

82. The factors of $a^2 - 2ab + b^2 - c^2$:

(a) $(a - b - c)(a + b + c)$

(b) $(a - b + c)(a - b + c)$

(c) $(a - b - c)(a - b + c)$

(d) $(a + b - c)(a - b - c)$

83. $\frac{-7}{5} \times \frac{3}{4} \times \frac{16}{21} \times \left(\frac{-20}{9}\right) = ?$

(a) $\frac{4}{3}$

(b) $\frac{-4}{3}$

(c) $\frac{16}{9}$

(d) $\frac{-16}{9}$

84. The difference of the largest and the smallest observation of any data is called :

(a) Range

(b) Class-size

(c) Mean

(d) Median

85. A cone and a cylinder have same height and same radius of their base. The volume of the cone will be :

(a) One fourth of volume of cylinder

(b) One third of volume of cylinder

(c) Half of volume of cylinder

(d) Equal to the volume of cylinder

Session : 2018-2019

CLASS 9TH ADMISSION TEST PAPER

URDU

۱۔ نیوادا جیل میں گاندھی جی نے کون سی زبان سیکھی؟

(a) بنگالی (b) اردو (c) فارسی (d) بھوج پوری

۲۔ ہاکی کے جادوگر دھیان چند کا انتقال کب ہوا؟

(a) ۳/دسمبر ۱۹۷۹ء (b) ۴/جولائی ۱۹۸۰ء (c) ۵/اکتوبر ۱۸۸۵ء (d) ۳/اگست ۱۹۹۷ء

۳۔ دقیانوسی لفظ کے کیا معنی ہیں؟

(a) بگڑا ہوا (b) بہت بڑا (c) دیہاتی (d) عقل مند

۴۔ علامہ اقبال اردو کے بہت بڑے

(a) ناول نگار تھے (b) نثر نگار تھے (c) افسانہ نگار تھے (d) شاعر تھے

۵۔ حاضر کا متضاد ہے۔

(a) پیش (b) غائب (c) حواضر (d) دور

۶۔ ۱۸۵۷ء میں کون سا واقعہ پیش آیا؟

(a) آزادی کی پہلی جنگ ہوئی (b) پہلی عالمی جنگ ہوئی (c) ہندوستان آزاد ہوا (d) دوسری جنگ عظیم ہوئی

۷۔ حکام کا واحد ہے؟

(a) حاکم (b) حکم (c) حکماء (d) حکیم

۸۔ اچھا انسان میں انسان کیا ہے؟

(a) اسم (b) صفت (c) کلمہ (d) ضمیر

۹۔ سرسید کہاں کے رہنے والے تھے؟

(a) مراد آباد (b) آگرہ (c) علی گڑھ (d) دلّی

۱۰۔ لفظ ''اعتراف'' کا صحیح معنی کیا ہے؟

(a) خوش کرنا (b) تسلیم کرنا (c) غور کرنا (d) سنانا

HINDI

11. निम्नलिखित में से कौन सा शब्द सही है?
(a) प्रदर्शिनी (b) प्रदर्शनी (c) प्रदृशनी (d) प्रर्दशनी

12. 'अत्याचार' में लगा उपसर्ग है-
(a) अ (b) अति (c) अत्य (d) अत्या

13. 'दूध' का पर्यायवाची है-
(a) अमृत (b) क्षीर (c) अम्बु (d) पय

14. 'घड़ों पानी पड़ना' मुहावरे का अर्थ है-
(a) पानी डालना (b) शर्मिंदा होना (c) घड़े में पानी भरना (d) गीला होना

15. 'जाति न पूछो साधु की, पूछ लीजिए ज्ञान' पंक्ति किस कवि की है?
(a) सूरदास (b) कबीरदास (c) तुलसीदास (d) मलूकदास

16. 'भगवान के डाकिए' कविता किसके द्वारा रचित है?
(a) दिनकर (b) महादेवी (c) निराला (d) कबीर

17. रामचरितमानस की रचना किस भाषा में हुई है?
(a) ब्रज भाषा (b) अवधी (c) भोजपुरी (d) खड़ी बोली

18. हिन्दी दिवस कब मनाया जाता है?
(a) 15 अगस्त (b) 25 जून (c) 14 सितम्बर (d) 25 जनवरी

ENGLISH

19. The synonym of the word **jubilant** is
(a) Intelligent (b) Beautiful (c) Funny (d) Joyful

20. The antonym of the word **timid** is
(a) Bold (b) Coward (c) Fearfl (d) Melancholy

21. I ..... the computer. It is all right now.
(a) have repaired (b) has repaired (c) was repaired (d) am repaired

22. The servant always complies ..... the wishes of his master.
(a) to (b) with (c) in (d) towards

23. Select the passive form of sentence **"The boys were playing cricket"**.
(a) Cricket had been played by the boys. (b) Cricket has been played by the boys.
(c) Cricket was played by the boys. (d) Cricket was being played by the boys.

24. I enjoy visiting many different countries ..... I wouldn't want to live anywhere else but India.
(a) and (b) but (c) or (d) so

25. A bomb scare ..... a delay of the flight.
(a) caused (b) cause (c) was caused (d) had causing

26. We often go fishing ..... the river bank.
(a) toward (b) inside (c) along (d) with

27. The shop ..... at 9 o'clock every morning.
(a) open (b) opens (c) is opening (d) opened

28. The idiom "cut corners" means
(a) To cut the corner of a drawing (b) When something is done badly to save money
(c) To take on a task that is way too big (d) To turn sharply

29. "Cycling is fun." What is **cycling** in the sentence?

(a) Infinitive (b) Gerund (c) Perfect participle (d) Adjective

30. Which of the following is ***incorrectly*** spelt?
(a) receive (b) difraud (c) believe (d) deceive

MATHEMATICS

31. A four digit number ***abcd*** is divisible by 11 if only
(a) $(a+b)-(c+d)$ is divisible by 11 (b) $(a-c)-(b+d)$ is divisible by 11
(c) $(a-c)-(b-d)$ is divisible by 11 (d) $(b+d)-(a+c)$ is divisible by 11

32. $(18x^3+48x^2+32x)\div(3x+4)$ is equal to
(a) $6x^2+8x$ (b) $2x(4x+3)$ (c) $9x^2+4x$ (d) None of these

33. Maximum interior angle possible for a regular polygon is
(a) 50° (b) 60° (c) 70° (d) 80°

34. The area of a trapezium shaped field is 480 m², the distance between two parallel sides is 20 m. Find the other parallel side
(a) 20 m (b) 44 m (c) 54 m (d) 64 m

35. An aquarium is in the form of a cuboid whose external measures are 80 cm × 30 cm × 40 cm. The base, side face and back face are to be covered with a coloured paper. The area of the coloured paper required is
(a) 3200 cm² (b) 4600 cm² (c) 7500 cm² (d) 4800 cm²

36. A rectangular piece of paper 11 cm × 4 cm is folded without overlapping to make a cylinder of height 4 cm. The volume of the cylinder so formed is
(a) 9.6 cm³ (b) 22.5 cm³ (c) 38.5 cm³ (d) 154 cm³

37. Express 4^{-3} as a power with the base 2
(a) 2^{-3} (b) 2^{-4} (c) 2^{4} (d) 2^{-6}

38. Simplify $\left\{\left(\frac{1}{3}\right)^{-2}-\left(\frac{1}{2}\right)^{-3}\right\}\div\left(\frac{1}{4}\right)^{-2}$
(a) 16 (b) $\frac{1}{16}$ (c) 1 (d) None of these

39. If the weight of 12 sheets of thick paper is 40 grams, how many sheets of the same paper would weight $2\frac{1}{2}$ kilograms?
(a) 450 (b) 550 (c) 650 (d) 750

40. A machinery worth Rs. 10000 depreciated by 5%. Its value after one year will be
(a) Rs. 9890 (b) Rs. 9975 (c) Rs. 9000 (d) Rs. 9750

41. The coordinates of a point lying on y-axis are
(a) (0, 0) (b) (0, y) (c) (x, 0) (d) (x, y)

42. Find the value of x when $\frac{5^x+5^{-3}}{5^3}=5^3$
(a) 2 (b) 4 (c) 6 (d) 8

43. Two coins are tossed simultaneously. What is the probability of getting one head and one tail?
(a) $\frac{1}{2}$ (b) $\frac{1}{4}$ (c) $\frac{2}{3}$ (d) $\frac{3}{4}$

44. If the points (1, 3), (−1, 3), (2, 3), (−4, 3) and (8, 3) are joined together, then the resulting line will be
(a) parallel to x-axis (b) parallel to y-axis
(c) parallel to both x and y-axis (d) passing through the origin

45. If A : B = 3 : 4, and B : C = 5 : 6, then A : C is

Louis Pasteur and Emile Roux developed the first ..... vaccine.
(b) rabies (c) AIDS (d) tuberculosis

(a) Madhya Pradesh (d) Rajasthan
...elopment of all vertebrates including

(a) 5 : 9 (b) 3 : 4 (c) 1 : 2 (d) 5 : 8

46. Pythagorean triplet in which one member is 12 is
(a) 12, 32, 35 (b) 12, 35, 37 (c) 12, 36, 38 (d) 12, 37, 39

47. A shopkeeper purchased 200 bulbs for Rs. 10 each. However, 5 bulbs were fused and had to be thrown away. The remaining bulbs were sold at Rs. 12 each. The gain or loss % is
(a) 10% (b) 13% (c) 15% (d) 17%

48. Factorisation of $(2a-b)^2+2(2a-b)-8$ would be
(a) $(2a-b+4)(2a+b-2)$
(b) $(a-2b+2)(2a+b-4)$
(c) $(2a-b+4)(2a-b-2)$
(d) $(2a+b-4)(2a-b+2)$

49. If $\sqrt[3]{7x^3-8}=-x$, then value of x is
(a) 1 (b) –1 (c) $\frac{1}{2}$ (d)

50. If two medians of a triangle are congruent, the triangle is
(a) an equilateral triangle (b) an isosceles triang
(c) an obtuse angled triangle (d) a scalene triangle

51. The point at which two co-ordinate axis meet is called
(a) ordinate (b) abscissa (c) quadrant (d) origin

52. In a triangle, centroid always divides medians in the ratio of
(a) 2 : 1 (b) 3 : 1 (c) 4 : 1 (d) 5 : 1

53. If $\sqrt{x-1}-\sqrt{x+1}+1=0$, then $4x$ equals to
(a) $1\frac{1}{5}$ (b) $4\sqrt{-1}$ (c) 0 (d) 5

54. A pit 5 m long and 3.5 m wide is dug to a certain depth. If the volume of earth taken out of it is 14 m^3, what is the depth of the pit?
(a) 80 cm (b) 8 m (c) 8 dm (d) 80 mm

55. The difference between two whole numbers is 66. The ratio of the two numbers is 2 : 5. What are the two numbers?
(a) 22, 100 (b) 22, 110 (c) 44, 100 (d) 44, 110

56. Six pipes are required to fill a tank in 1 hour 20 minutes. How long will it take to fill the tank if only 5 pipes of the same type are used?
(a) 1 hour 16 minutes (b) 1 hour and 26 minutes
(c) 1 hour 36 minutes (d) 2 hours 36 minutes

57. Two times a number is 100% increase in the number. If we take half the number what would be the decrease in per cent?
(a) 100% (b) 75% (c) 50% (d) 25%

58. The product of two rational numbers is $-\frac{28}{81}$. If one of them is $-\frac{2}{3}$, then the other number is
(a) $\frac{14}{17}$ (b) $\frac{13}{27}$ (c) $\frac{14}{27}$ (d) $\frac{11}{28}$

59. A trader buys certain items at 32% off the list price and he wants to make a profit of 25% after allowing a discount of 20%. At what per cent above the list price should he mark the items?
(a) 4.15% (b) 5.25% (c) 6.15% (d) 6.25%

60. Shyam deposited in a bank Rs. 7500 for 6 months at the rate of 8% interest compounded quarterly. Find the amount he received after 6 months.
(a) Rs. 6800 (b) Rs. 6803 (c) Rs. 7800 (d) Rs. 7803

61. Ram buys a refrigerator for Rs. 4000 on credit. The rate of interest for the first year is 5% and the second year is 15%. How much will it cost him if he pays the amount after two years?
(a) Rs. 3830 (b) Rs. 4830 (c) Rs. 5830 (d) Rs. 6830

62. Three cubes of sides 3 cm, 4 cm, and 5 cm are melted and a new cube is formed. Find the side of the new

cube
(a) 3 cm (b) 4 cm (c) 5 cm (d) 6 cm

63. The median and the mean of the data given below are 2, 5, 5, 7, 4, 2, 3, 8, 3, 7
(a) 5.5 and 4.5 (b) 4.5 and 4.5 (c) 5.5 and 4.6 (d) 4.5 and 4.6

64. Present ages of Kuldeep and Asad are in the ratio 5 : 8. Five years ago this ratio was 4 : 7. After 10 years, the ages of Kuldeep and Asad will be
(a) 10 years, 14 years (b) 15 years, 28 years (c) 30 years, 48 years (d) 35 years, 50 years

65. In the following data, the mode is
5, 3, 9, 5, 3, 2, 8, 9, 9, 9, 7, 6, 5, 5, 3, 2, 7, 6, 8, 9
(a) 5 (b) 9 (c) 2 (d) 7

66. Distance covered by a man walking for 12 minutes at a speed of 3.5 km per hour is
(a) 1.7 km (b) 0.07 km (c) 0.7 km (d) 1.07 km

67. ..... crops are usually sown with the beginning of the first rains in July during the south-west monsoon season.
(a) Rabi (b) Kharif (c) Mansal (d) None of these

68. All living cells and many of the tiny organelles internal to cells are bounded by thin membranes. These membranes are composed primarily of
(a) phospholipids (b) amino acid (c) gelatin (d) carbohydrates

69. The number of nuclei present in zygote is
(a) zero (b) one (c) two (d) three

70. Insulin is a hormone produced by the ..... that allows your body to use sugar (glucose) from carbohydrates in the food that you eat for energy or to store glucose for future use.
(a) liver (b) pancreas (c) kidney (d) brain

71. The human skeleton is composed of around ..... bones at birth.
(a) 210 (b) 270 (c) 310 (d) 370

72. Liquefied petroleum gas (LPG or LP gas) used in Indian homes is a mixture of
(a) methane and ethane (b) propane and butane
(c) methane and butane (d) ethane and butane

73. Non-metal oxides such as ..... and ..... are responsible for acid rain.
(a) sulphur oxide and hydrogen peroxide (b) sulphur dioxide and nitrogen oxide
(c) carbon monoxide and nitrogen oxide (d) carbon monoxide and hydrogen peroxide

74. ..... is a group of living organisms consisting of similar individuals capable of exchanging genes or interbreeding.
(a) Family (b) Species (c) Genus (d) Order

75. ..... are tiny particles in the air that reduce visibility and cause the air to appear hazy when levels are elevated.
(a) PM1.5 (b) PM2.5 (c) PM3.5 (d) PM4.5

76. In eukaryotes, all the space inside the cell membrane but outside the nucleus is the gel-like
(a) xylem (b) enzyme (c) cytoplasm (d) phloem sap

77. The small spherical body inside the nucleus is called
(a) mitochondria (b) chromatin (c) nucleolus (d) chromosome

78. Which of the following is part of female reproductive system?
(a) Testes (b) Uterus (c) Scrotum (d) Prostate

79. Velocity of the sound is greatest in
(a) metallic solid (b) liquid (c) gas (d) vacuum

80. Which of the following is the best conductor of electricity?
(a) gold (b) silver (c) copper (d) palladium

81. The ..... cells in the retina of the human eye function best in relatively bright light.
(a) cone (b) rod (c) sclera (d) uvea

82. Which of the following metal is not extracted by electrolysis?
(a) Aluminium (b) Iron (c) Sodium (d) Potassium

83. Louis Pasteur and Emile Roux developed the first ..... vaccine.
(a) smallpox (b) rabies (c) AIDS (d) tuberculosis
84. Kanha National Partk is located in
(a) Andhra Pradesh (b) Gujarat (c) Madhya Pradesh (d) Rajasthan
85. Which of the following hormone is essential for the growth and development of all vertebrates including humans?
(a) Estrogen (b) Thyroxine (c) Prolactin (d) Glucagon
86. ..... is a process by which nitrogen in the Earth's atmosphere is converted into ammonia (NH_3) or other molecules available to living organisms.
(a) Fermentation (b) Nitrogen fixation (c) Nitrosis fixation (d) Photosynthesis
87. Polyester is a category of polymers that is made up of repeating units of
(a) Ethane (b) Ester (c) Ethanol (d) Pantene
88. When we press the bulb of a dropper with its nozzle kept in distilled water, air in the dropper is seen to escape in the form of bubbles. Once we release the pressure on the bulb, distilled water gets filled in the dropper. The rise in dropper is due to
(a) gravity of the earth
(b) special property of the rubber of the bulb and distilled water
(c) atmospheric pressure (d) None of these
89. The image formed by a plane mirror is always
(a) virtual, upright and of smaller shape and size as the object it is reflecting.
(b) real, upright, and of larger shape and size as the object it is reflecting.
(c) virtual, upright, and of same shape and size as the object it is reflecting.
(d) real, upright, and of same shape and size as the object it is reflecting.
90. Which of the following has the highest calorific value and may be considered as the best fuel but is highly inflammable and difficult to store and transport?
(a) Methane (b) Hydrogen (c) CNG (d) LPG
91. The pressure produced when a force of 50 N is applied over an area of 10 m^2 is
(a) $2\frac{1}{5}$ N/m^2 (b) $3\frac{1}{5}$ N/m^2 (c) 5 N/m^2 (d) $5\frac{1}{5}$ N/m^2
92. The pressure exerted by a fluid
(a) decreases with depth (b) increases with depth
(c) does not change with depth (d) depends upon the liquid
93. Ball bearing are used to
(a) increase friction (b) decrease friction (c) keep friction constant (d) None of these
94. When electrolysis of water is carried out, water is decomposed into
(a) oxygen gas only (b) hydrogen gas only (c) both hydrogen and oxygen
(d) oxygen gas and copper
95. A point at ground level below which an earthquake originates is called
(a) epicentre (b) richter (c) fault (d) volcano
96. A kaleidoscope consists of three mirrors set at an angle of ..... to form multiple images of the object in front of it.
(a) 30 degrees (b) 45 degrees (c) 60 degrees (d) 90 degrees
97. Which of the following is primarily used in preparation of smoke screens?
(a) oxygen (b) copper (c) nitrogen (d) phosphorus
98. An instrument used to measure the pressure of liquids at different depths is
(a) a barometer (b) a manometer (c) a hygrometer (d) an anemometer
99. Loudness of sound is determined by
(a) time period (b) amplitude of vibrating body
(c) frequency of the vibrating body (d) None of these
100. The electrical resistance of a circuit is defined as

(c) ill-smelling (d) oppressive
17. The antonym of the word **ajar** is:

۹۔ ایسے الفاظ جن کے معنی اور املا مختلف لیکن آواز ایک ہو۔ اسے کیا

(a) product of voltage applied to the electric current which flows through it
(b) ratio of voltage applied to the electric current which flows through it
(c) difference between voltage applied and electric current which flows through it
(d) None of these

ANSWER SHEET

1-b	2-a	3-b	4-d	5-b	6-a	7-a	8-b	9-d	10-b
11-b	12-b	13-b	14-b	15-b	16-a	17-b	18-c	19-d	20-a
21-a	22-b	23-d	24-b	25-a	26-c	27-b	28-b	29-b	30-b
31-d	32-a	33-b	34-b	35-d	36-c	37-d	38-b	39-d	40-b
41-b	42-a	43-a	44-a	45-d	46-b	47-d	48-c	49-a	50-b
51-d	52-a	53-d	54-a	55-d	56-c	57-c	58-c	59-d	60-d
61-b	62-d	63-d	64-d	65-b	66-c	67-b	68-a	69-c	70-b
71-b	72-b	73-b	74-b	75-b	76-c	77-c	78-b	79-a	80-b
81-a	82-b	83-b	84-c	85-b	86-b	87-b	88-c	89-c	90-b
91-c	92-b	93-b	94-c	95-a	96-c	97-d	98-b	99-b	100-b

Session : 2019 — 2020

CLASS 9TH ADMISSION TEST PAPER

HINDI

1. 'वास्तविक' शब्द का विलोम है-
   (a) सात्विक (b) नास्तिक
   (c) नैसर्गिक (d) काल्पनिक
2. ''पुर ते निकसी रघुवीर वधू,
   धीरे धीरे दए मग में डग द्वै।''
   इस पंक्ति में किस भाषा का प्रयोग हुआ है?
   (a) ब्रजभाषा (b) अपभ्रंश भाषा
   (c) अवधी भाषा (d) खड़ी बोली
3. 'औजस्वी' का शुद्ध रूप है-
   (a) ओजस्वी (b) औजस्वी
   (c) ओजसवी (d) ओजसवि
4. 'हंसवाहिनी' शब्द में समास है.
   (a) कर्मधारय समास (b) बहुव्रीहि समास
   (c) अव्ययीभाव समास (d) तत्पुरूश समास
5. ''इस तालाब में अनेक मछलियाँ है।'' इस वाक्य में विशेषण है-
   (a) सार्वनामिक विशेषण
   (b) परिमाणवाचक विशेषण
   (c) निश्चित परिमाणवाचक विशेषण
   (d) अनिश्चित परिमाणवाचक विशेषण
6. ''चरण कमल बंदौं हरि राई'' में अलंकार है?
   (a) यमक अलंकार (b) उत्प्रेक्षा अलंकार
   (c) रूपक अलंकार (d) अन्योक्ति अलंकार
7. 'प्रत्यूष' शब्द का अर्थ है-
   (a) शरारती (b) बनावट
   (c) प्रातःकाल (d) संध्याकाल

URDU

۸۔ اقبال گھر سے آیا اس جملے میں لفظ "سے" کیا ہے؟
(a) ختمہ (b) سکتہ
(c) حرف جار (d) واوین

۹۔ ایسے الفاظ جن کے معنی اور املا مختلف لیکن آواز ایک ہو۔ اسے کیا کہتے ہیں؟
(a) ہم آواز الفاظ (b) مرکب الفاظ
(c) مترادف الفاظ (d) ہم وزن الفاظ

۱۰۔ حضرت محل کا اصلی نام کیا تھا؟
(a) احمدی بیگم (b) بڑی بیگم
(c) محمدی بیگم (d) عذیز بیگم

۱۱۔ پہلے وزیر مواصلات کون تھے؟
(a) ابوالکلام آزاد (b) محمد علی جوہر
(c) ذاکر حسین (d) رفیع احمد قدوائی

۱۲۔ شاعر مشرق اور شاعر اسلام کسے کہا جاتا ہے؟
(a) غالب (b) فیض
(c) اقبال (d) اختر الایمان

۱۳۔ نظم شبنم کا شاعر کون ہے؟
(a) سعادت حسین (b) روشن صدیقی
(c) حفیظ جالندھری (d) علامہ اقبال

۱۴۔ صحرا کی جمع کیا ہے۔
(a) صحرا (b) صحراء
(c) صحراؤں (d) صحرایں

۱۵۔ اسم فاعل کی تعریف مندرجہ ذیل میں سے ایک ہے۔
(a) کسی کام کو ظاہر کرے (b) کسی کام کا ہونا ظاہر ہو
(c) کسی کام کی نوعیت کا ظاہر کرے
(d) کسی کام کرنے والے کو ظاہر کرے

ENGLISH

16. The synonym of the word **sultry** is :
   (a) unpleasant (b) impure
   (c) ill-smelling (d) oppressive
17. The antonym of the word **ajar** is:

(a) closed (b) open
(c) unlatched (d) unfastened

18. I am ..... the ship to Sri Lanka.
(a) at (b) on
(c) with (d) in

19. We haven't seen each other ..... ages.
(a) for (b) since
(c) from (d) by

20. Select the **passive** form of the sentence " **Ashley wrote this novel.**"
(a) This novel has been written by Ashley.
(b) This novel was written by Ashley.
(c) This novel had been written by Ashley.
(d) This novel was being written by Ashley.

21. He knew the story because he had read the book..... .
(a) after (b) before
(c) ago (d) while

22. Please ..... the curtains.
(a) draw (b) stretch
(c) enlarge (d) unfasten

23. The doctor attended ..... the patient very quietly.
(a) into (b) on
(c) to (d) upon

24. ..... darkest cloud has ..... silver lining.
(a) A, the (b) The, a
(c) The, the (d) A, a

25. Which of the following is **correctly** spelt?
(a) Psychiatrist (b) Psyciatrist
(c) Pshychiatrist (d) Psychietrist

MATHEMATICS

26. If the digit in one's place of a number is 3, then its cube will end with the digit
(a) 3 (b) 6
(c) 7 (d) 9

27. $\left[\left(\frac{1}{2}\right)^{-1}+\left(\frac{2}{3}\right)^{2}-\left(\frac{3}{4}\right)^{-2}\right]$ is equal to
(a) $\frac{81}{484}$ (b) $\frac{81}{169}$
(c) $\frac{169}{81}$ (d) $\frac{16}{81}$

28. The sum of the interior angles of a polygon of n- sides is given by
(a) $(n+2)\times 180^\circ$ (b) $(n-2)\times 90^\circ$
(c) $(n-2)\times 360^\circ$ (d) $(n-2)\times 180^\circ$

29. A rhombus and a square have the same area. The side of the square is 6 cm. If one diagonal of the rhombus is 4 cm, find the length of the other diagonal
(a) 18 cm (b) 9 cm
(c) 15 cm (d) 24 cm

30. If the parallel sides of a parallelogram are 2 cm apart and their sum is 10 cm, then its area is
(a) 20 cm^2 (b) 05 cm^2
(c) 10 cm^2 (d) 15 cm^2

31. Eight taps of the same size fill a tank in 27 minutes. If two taps go out of order, how long would the remaining taps take to fill the tank
(a) 30 minutes (b) 25 minutes
(c) 36 minutes (d) 38 minutes

32. Which of the following is the difference between the squares of two consecutive natural numbers?
(a) Sum of the two numbers
(b) Difference of the two numbers
(c) Twice the sum of the two numbers
(d) Twice the difference between the two numbers

33. Solve $\left\{\frac{x+2}{6}-\left(\frac{11-x}{3}-\frac{1}{4}\right)\right\}=\frac{3x-4}{12}$
(a) $x=11$ (b) $x=10$
(c) $x=1$ (d) $x=0$

34. A rectangular piece of paper 11cm×4cm is folded without overlapping to make a cylinder of height 4 cm. Find the volume of the cylinder
(a) 28.5 cm^3 (b) 48.5 cm^3
(c) 38.0 cm^3 (d) 38.5 cm^3

35. The present price of a scooter is Rs. 7290. If its value decreases every year by 10%, then find its value before 3 years
(a) Rs. 11000 (b) Rs. 9975
(c) Rs. 9000 (d) Rs. 10000

36. The coordinates of a point lying on x- axis are
(a) $(0,0)$ (b) $(0,y)$
(c) $(x,0)$ (d) (x,y)

37. If $(-4)^{m+2}\times(-4)^4=(-4)^7$, then the value of m is
(a) 1 (b) 2
(c) –1 (d) 0

38. A die is thrown once. The probability of getting a prime number is
(a) $\frac{1}{2}$ (b) $\frac{1}{3}$

(c) $\frac{2}{3}$ (d) $\frac{1}{6}$

39. If 'x' and 'y' are in a direct proportion, then which of the following is correct?
(a) $x-y=$ Constant (b) $x+y=$ Constant
(c) $xy=$ Constant (d) $\frac{x}{y}=$ Constant

40. Two number are in the ratio 5:3. If they differ by 18, the numbers are
(a) 45 and 27 (b) 27 and 09
(c) 40 and 12 (d) 18 and 40

41. For any natural numbers m greater than 1, which of the following triplets is Pythagorean?
(a) $(2m, 2m^2-1, 2m^2+1)$
(b) (m, m^2-2, m^2+2)
(c) $(2m, m^2-1, m^2+2)$
(d) $(m^2-1, 2m, m^2+1)$

42. A shopkeeper bought a TV and DVD for Rs 8000 each. He made a loos of 4% on the DVD and a profit of 8% on the TV. Find the gain or Loss percent on the whole transaction
(a) Loss of 02% (b) Gain of 04%
(c) Gain of 02% (d) Loss of 04%

43. Factorization of x^3-x would be
(a) $x(x-x^2)$ (b) $x[(1+x)(1-x)]$
(c) $x(x^2-x)$ (d) $x[(1+x)(x-1)]$

44. Find the square root of $23\frac{394}{729}$
(a) $2\frac{17}{27}$ (b) $4\frac{17}{23}$
(c) $4\frac{23}{27}$ (d) $3\frac{23}{27}$

45. The interior angle of a regular polygon is 156^0. Find the number of sides of the regular polygon
(a) 15 (b) 12
(c) 14 (d) 13

46. A polyhedron has 20 faces and 12 vertices. How many edges it has?
(a) 10 (b) 16
(c) 30 (d) 34

47. Which of the following numbers is not a Hardy-Ramanujan Numbers?
(a) 1729 (b) 2197
(c) 4104 (d) 13832

48. What is the value of $5x^{25}-3x^{32}+2x^{-12}$ at $x=-1$?
(a) 4 (b) 6
(c) −6 (d) −5

49. Two identical cubes each of total surface area 6 cm^2 are joined end to end. Which of the following is the total surface area of the cuboid so formed?
(a) 12 cm^2 (b) 18 cm^2
(c) 10 cm^2 (d) 08 cm^2

50. By selling 33 books, a shopkeeper gains the selling price of 11 books. His gain per cent is
(a) 20% (b) 30%
(c) 40% (d) 50%

51. What is the reciprocal of $\left(-\frac{3}{4}\right)^0$?
(a) −1 (b) 1
(c) $-\frac{4}{3}$ (d) $\frac{4}{3}$

52. By what number should $(-20)^{-1}$ be divided so that the quotient is $(5)^{-1}$
(a) $\frac{1}{4}$ (b) 4
(c) $-\frac{1}{4}$ (d) −4

53. Two times a number is a 100% increase in the number. If we take half the number what would be the decrease in per cent?
(a) 100% (b) 75%
(c) 50% (d) 25%

54. Find the compound interest which Sita will get on Rs. 4096, if she gave it for 18 months at $12\frac{1}{2}\%$ per annum, interest being compound half-yearly
(a) Rs. 800 (b) Rs. 817
(c) Rs. 813 (d) Rs. 823

55. After 24 years Jerry would be three times as old as he was 4 years ago. His present age is
(a) 28 years (b) 32 years
(c) 18 years (d) 20 years

SCIENCE

56. Which of the following consists only of Rabi

crops?
(a) Paddy and Maize
(b) Maize and Soyabean
(c) Paddy and Wheat
(d) Wheat and Mustard

57. Which of the following cell does not possess nuclear membrane?
(a) Cheek cell (b) Onion cell
(c) Blue green algae (d) Amoeba

58. Endemic Fauna species found in Pachmarhi Biosphere Reserve are
(a) Bison and Flying Squirrel
(b) Rhinoceros and Wild Dog
(c) Musk Deer and Wolf
(d) Red Panda and Barking Deer

59. Metamorphosis in frog is controlled by
(a) Thyroxine hormone
(b) Estrogen hormone
(c) Adrenaline hormone
(d) Insulin hormone

60. Which of the following is an example of algae?
(a) Yeast (b) Euglena
(c) Spirogyra (d) Salmonella

61. The dark brown and viscous crude oil with a characteristic foul smell is known as
(a) Petroleum (b) Kerosene
(c) Diesel (d) Petrol

62. *Zinc displaces copper from its aqueous solution.* In this regard which of the following statement is correct
(a) Copper is more reactive than zinc
(b) Zinc is more reactive than copper
(c) Zinc and copper are equally reactive
(d) None of the above

63. In *Panthera leo* (lion) and *Panthera onca* (jaguar), *panthera* is
(a) family (b) species
(c) genus (d) order

64. Polymers are the giant molecules which are made of many repeating units called
(a) Monomers (b) Monosaccharides
(c) Isomers (d) Dimers

65. The shape of smooth muscle cell is
(a) spherical (b) oval
(c) branched (d) spindle

66. Acid rain is caused by a chemical reaction that begins when compounds like ..... and ..... are released into the air.
(a) carbon dioxide, nitrogen oxides
(b) sulphur dioxide, nitrogen oxides
(c) carbon dioxide, sulphur dioxide
(d) all the above

67. Which of the following is female part of a flower?
(a) Stamen (b) Anther
(c) Pistil (d) Calyx

68. Human red blood cells are formed mainly in the bone marrow and are believed to have an average life span of approximately ..... days.
(a) 60 (b) 120
(c) 180 (d) 240

69. Safety device that works on the heating effect of electric current is
(a) capacitor (b) filament
(c) fuse (d) inductance

70. A real image is formed when rays
(a) diverge (b) converge
(c) appear to converge
(d) none of the above

71. The formula for sulphurous acid is
(a) H_2SO_4 (b) H_2S
(c) $H_2S_2O_3$ (d) H_2SO_3

72. *Ursa Major* constellation is also called
(a) False Cross (b) Great Bear
(c) The Plough (d) The Bull

73. The pitch of the sound primarily depends on
(a) Amplitude (b) Frequency
(c) Wavelength (d) Speed

74. The calorific value of hydrogen is about
(a) 10000 kJ/kg (b) 150000 kJ/kg
(c) 50000 kJ/kg (d) 55000 kJ/kg

75. Sodium metabisulphite is used
(a) for weed control (b) antibiotic agent
(c) food preservative (d) plant fertilizer

76. Which of the following element is stored under kerosene?
(a) potassium (b) platinum
(c) phosphorus (d) lithium

77. Which gas is rapidly produced when elemental aluminium reacts with sodium hydroxide solution?
(a) oxygen (b) carbon dioxide
(c) hydrogen (d) nitrogen

78. The hardest material present in our body is
(a) Bone (b) Enamel
(c) Dentine (d) Cementum

79. The device used to measure depth of seas is
(a) Aquameter (b) Fathometer
(c) Lactometer (d) Fluxmeter

80. The process of conversion of sugar into alcohol

ving is female part of a

(b) Anther
(d) Calyx

lls are formed mainly in
d are believed to have an
approximately .....

(b) 120
(d) 240

orks on the heating effect

(b) filament
(d) inductance

ed when rays
(b) converge

ge

hurous acid is

(b) H_2S

(d) H_2SO_3

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(b) Great Bear
(d) The Bull

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(d) Speed

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(b) antibiotic agent
(d) plant fertilizer

g element is stored under

(b) platinum
(d) lithium

pidly produced when
um reacts with sodium

(b) carbon dioxide
(d) nitrogen

is called
(a) fermentation (b) decantation
(c) sublimation (d) condensation

81. The water holding capacity is the highest in
(a) sandy soil (b) clayey soil
(c) loamy soil
(d) mixture of sand and loam

82. A force has
(a) magnitude only
(b) direction only
(c) both magnitude and direction
(d) none of these

83. For a normal eye, the near point is about
(a) 25 cm (b) 50 cm
(c) 75 cm (d) Infinity

84. One light year is equal to
(a) 9.4607×10^{15} m (b) 9.4607×10^{15} km
(c) 3.08×10^{15} m (d) 3.08×10^{15} km

85. The chemical name of baking soda is
(a) Calcium bicarbonate
(b) Sodium hydrogen carbonate
(c) Sodium carbonate
(d) Calcium hydrogen carbonate

ANSWER SHEET

1-d	2-c	3-a	4-b	5-d
6-c	7-c	8-c	9-a	10-c
11-d	12-c	13-a	14-c	15-d
16-d	17-a	18-b	19-a	20-b
21-b	22-a	23-c	24-b	25-a
26-c	27-b	28-d	29-a	30-c
31-c	32-a	33-a	34-d	35-d
36-d	37-a	38-a	39-d	40-a
41-d	42-c	43-d	44-c	45-a
46-c	47-a	48-c	49-c	50-d
51-b	52-c	53-c	54-b	55-b
56-d	57-c	58-a	59-a	60-c
61-a	62-b	63-c	64-a	65-d
66-b	67-c	68-b	69-c	70-b
71-d	72-b	73-b	74-b	75-c
76-a	77-c	78-b	79-b	80-a
81-b	82-c	83-a	84-a	85-b

Session : 2020 — 2021

CLASS 9TH ADMISSION TEST PAPER

HINDI

1. 'अति' शब्द का विलोम है-
   (a) अल्प (b) विगत
   (c) इति (d) बहु
2. इन पंक्तियों में किस भाषा का प्रयोग हुआ है?
   ''साँच बराबर तप नहीं झूठ बराबर पाप।
   जाके हृदय साँच है, ताके हृदय आप।।''
   (a) अपभ्रंश भाषा (b) अवधी भाषा
   (c) खड़ी बोली (d) सधुक्कड़ी भाषा
3. 'रामचरित्मानस' की रचना किस भाषा में हुई है?
   (a) अवधी (b) ब्रज
   (c) छत्तीसगढ़ी (d) बघेली
4. 'वसुधा' का पर्यायवाची होगा
   (a) नभ (b) अम्बर
   (c) भानु (d) उर्वी
5. 'प्रत्यूष' शब्द का अर्थ है
   (a) आकाश (b) अन्धकार
   (c) प्रात:काल (d) प्रकाश
6. 'पिता ने पुत्र को पुकारा' में कारक होगा
   (a) कर्म (b) कर्ता
   (c) संप्रदान (d) संबंध
7. 'प्रतिदिन' शब्द में समास है
   (a) अव्ययीभाव समास (b) तत्पुरुष समास
   (c) कर्मधारय समास (d) बहुव्रीहि समास

URDU

۸۔ مندرجہ ذیل شعر کے شاعر کون ہیں؟
الٹی ہو گئیں سب تدبیریں کچھ نہ دوا نے کام کیا
دیکھا اس بیماریٔ دل نے آخر کام تمام کیا
(a) میر تقی میر (b) غالب
(c) فراق گورکھپوری (d) فیض احمد فیض

۹۔ قرۃ العین حیدر کا ناول ''میرے بھی صنم خانے'' کس سن میں شائع ہوا؟
(a) ۱۹۴۹ء (b) ۱۹۴۷ء
(c) ۱۹۳۷ء (d) ۱۹۹۰ء

۱۰۔ علی گڑھ مسلم یونیورسٹی کے پہلے رجسٹرار کون تھے؟
(a) سرسید احمد خاں (b) شبلی نعمانی
(c) رشید احمد صدیقی (d) سجاد حیدر یلدرم

۱۱۔ گاندھی جی جنوبی افریقہ میں کیا کام کرتے تھے؟
(a) تجارت (b) وکالت
(c) خدمتِ خلق (d) مذہبی کارگزاریاں

۱۲۔ ساتھ سفر کرنے والے کا مرکب لکھیے
(a) ساتھی (b) ہم سفر
(c) مسافر (d) دوست

۱۳۔ علامہ اقبال کی پیدائش کب ہوئی تھی؟
(a) ۱۸۴۵ء (b) ۱۸۵۵ء
(c) ۱۸۷۷ء (d) ۱۸۸۵ء

۱۴۔ لفظ آگ بگولہ ہونا کیا ہے؟
(a) جملہ (b) متضاد
(c) مترادف (d) محاورہ

۱۵۔ مندرجہ ذیل میں سے ایک اضافت کی تعریف ہے۔
(a) اس زیر کو کہتے ہیں جو دو جملوں کے درمیان استعمال ہو
(b) اس زبر کو کہتے ہیں جو دو لفظوں میں آخر میں لگا ہوتا ہے
(c) ایسا زیر جو دو لفظ کے درمیان پہلے لفظ کے آخر میں ہو
(d) ایسا زیر جو لفظ کے درمیان پہلے لفظ کے شروع میں ہو

ENGLISH

16. ..... shall I fear but the ones who hurt me?
   (a) Whose (b) Whom
   (c) Who (d) Which
17. I saw him ..... the baker's.
   (a) at (b) by
   (c) to (d) in

$(x-3)(x^2+3x+9)$ to get x^3-3x+9

(a) -36 (b) -27

(c) $-36+3x$ (d) $3x-27$

55. Two successive discount of 20% and 10% are equal to a single discount of

(a) 13% (b) 30%

(c) 25% (d) 28%

SCIENCE

56. A family consumes 20 kg of LPG in 25 days. Calculate the average energy consumption of the family per day, if calorific value of L.P.G. is 50 kJ/kg.

(a) 40 J per day (b) 400 kJ per day

(c) 40 kJ per day (d) 400 J per day

57. Sulphuric acid is

(a) Mild acid (b) Mineral acid

(c) Weak acid (d) Edible acid

58. Valency of Carbon is

(a) One (b) Two

(c) Four (d) Three

59. The atomic number is

(a) Number of protons

(b) Number of electrons

(c) Number of neutrons

(d) Sum of protons and neutrons

60. The plastic which gets deformed easily on heating and can be bent easily is known as

(a) Thermosetting plastic

(b) Thermoplastics

(c) Plastics (d) None of these

61. Non-stick coating on cookwares is made from

(a) Acrylic (b) Teflon

(c) PVC (d) Rayon

62. Cellulose is made up of a large number of

(a) ester groups (b) sugar units

(c) glucose units (d) ethene units

63. Buring of LPG is an example of ..... combustion

(a) rapid (b) spontaneous

(c) slow (d) explosive

64. Metals reacts with acids to produce

(a) Hydrogen gas (b) Oxygen gas

(c) Silver gas (d) Carbon gas

65. Name the unit in which the calorific value of a fuel is expressed

(a) Newton (b) Kilo Joules per kg

(c) Pascals (d) m/s

66. Fossil fuels are

(a) Coal, oxygen and nitrogen gas

(b) Coal, petroleum and natural gas

(c) Hydrogen, natural gas and coal

(d) All of these

67. PVC (Polyvinyl chloride) and polythene are example of

(a) Thermoplastic

(b) Thermosetting plastic

(c) Natural substance

(d) Bakelite

68. Fuel may be

(a) Solid (b) Liquid

(c) Gases (d) All of these

69. During the process of cloning dolly, a cell was collected from the mammary gland of

(a) Female Wild Sheep

(b) Female Scottish Blackface Sheep

(c) Female Finn Dorsett Sheep

(d) Female Irish Sheep

70. The percentage of nitrogen in the atmosphere is

(a) 71% (b) 76%

(c) 78% (d) 79%

71. The scientific name of the organism commonly called 'pond silk' is

(a) Chlamydomonas (b) Penicillium

(c) Spirogyra (d) Aspergillus

72. Which of the following is an example viviparous animal?

(a) Fish (b) Dog

(c) Pigeon (d) Frog

73. Which one of the following is a special plastic on which oil and water do not stick?

(a) Teflon (b) Rayon

(c) Terylene

(d) Thermosetting plastic

74. Longest cell found in the body of animals is

(a) Muscle cell (b) Nerve cell

(c) Bone cell (d) Egg cell

75. The device used to test whether an object is carrying charge or not is called

(a) Osmoscope (b) Electroscope

(c) Stetinoscope (d) Kaleidoscope

76. The Jelly like substance present between the cell memberane and the nucleus is called

(a) Mitochondria (b) Cytoplasm

(c) Golgi body (d) Ribosome

77. Splitting of white light into seven colours is known as

(a) Reflection (b) Dispersion

(c) Multiple Reflection (d) None of these

78. What is the 'to and fro' motion of objects called?

(a) Linear motion (b) Uniform motion

(c) Non-uniform motion
(d) Oscillatory motion

79. If the amplitude of sound becomes thrice then loudness increases by factor of
(a) 4 (b) 8
(c) 9 (d) 16

80. What cause a match stick to catch fire, when rubbed on rough surface?
(a) Direction (b) Shape
(c) Friction (d) Height

81. What would be the path of the reflected ray if the incident ray falls normally on plane mirror?
(a) Reflected ray follows the same path as the incident ray
(b) Making angle 45° with the normal to the mirror
(c) Making angle 30° with the normal to the mirror
(d) Making angle 60° with the normal to the mirror

82. A boy is standing at 20 m away from a plane mirror. He starts running towards the mirror with the speed of 5 m/s. The image of the boy appears to be running towards him with the speed of
(a) 4 m/s (b) 10 m/s
(c) 2.5 m/s (d) 100 m/s

83. Body 'A' with charge $+2q$ is brought in contact with another identical uncharged body 'B' and then removed. The charge on body B is
(a) $+q$ (b) $-2q$
(c) $+2q$ (d) $-q$

84. The S.I. unit of pressure is
(a) Pascal (b) Newton
(c) Joule (d) Watt

85. Rolling friction is smaller than
(a) Sliding friction (b) Static friction
(c) Both (a) and (b) (d) None of these

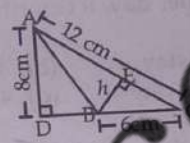
ANSWER SHEET

1-a	2-d	3-a	4-d	5-c
6-a	7-a	8-a	9-a	10-d
11-b	12-b	13-c	14-d	15-c
16-b	17-a	18-a	19-b	20-d
21-b	22-c	23-d	24-b	25-c
26-a	27-c	28-c	29-b	30-b
31-b	32-c	33-a	34-b	35-c
36-c	37-c	38-c	39-d	40-c
41-b	42-d	43-c	44-d	45-a
46-b	47-c	48-c	49-a	50-d
51-c	52-d	53-a	54-c	55-d
56-c	57-b	58-c	59-a	60-b
61-b	62-c	63-a	64-a	65-b
66-b	67-a	68-d	69-c	70-c
71-c	72-b	73-a	74-b	75-b
76-b	77-b	78-d	79-c	80-c
81-a	82-b	83-a	84-a	85-c

HINTS & SOLUTIONS

26. $m^5 - 16m^3 \Rightarrow m^3(m^2-16)$
$\Rightarrow m^3(m^2-4^2) \Rightarrow m^3(m-4)(m+4)$

27.



In ΔADC, $DC^2 = AC^2 - AD^2 = 12^2 - 8^2$
$\Rightarrow DC^2 = 144 - 64 = 80 \Rightarrow DC = \sqrt{80}$
$\therefore$ Area of $\Delta ADC = \frac{1}{2} \times 8 \times \sqrt{80} = 4\sqrt{80}$ cm^2
But, $BD = DC - BC = \sqrt{80} - 6 = 4\sqrt{5} - 6$
Area of $\Delta ADB = \frac{1}{2} \times 8 \times (4\sqrt{5} - 6) = 4(4\sqrt{5} - 6)$
$\therefore$ Area of $\Delta ABC = ar.$ of $\Delta ADC - ar.$ of ΔADB
$= 4\sqrt{80} - 4(4\sqrt{5} - 6) = 4[\sqrt{80} - 4\sqrt{5} + 6] = 24$ cm^2

Area of $\Delta ABC = \frac{1}{2} \times AC \times h$

$\therefore h = \frac{ar.\text{ of } \Delta ABC \times 2}{AC} = \frac{24 \times 2}{12} = 4$ cm

28. Mean of y and $\frac{1}{y}$ is equal to $\frac{y + \frac{1}{y}}{2} = z$

Squarring both sides $\frac{y^2 + \frac{1}{y^2} + 2}{4} = z^2$

$\Rightarrow y^2 + \frac{1}{y^2} + 2 = 4z^2 \Rightarrow y^2 + \frac{1}{y^2} = 4z^2 - 2$

Mean of $y^2 + \frac{1}{y^2}$ is, $\frac{y^2 + \frac{1}{y^2}}{2} = \frac{4z^2 - 2}{2}$