

THE WINNING EDGE DEFENCE ACADEMY (WEDA)
RASHTRIYA MILITARY SCHOOL
ENTRANCE EXAM (CLASS-IX)
PRACTICE SET – 01
PAPER – I

Instructions

1. This question paper contains 100 questions, which is divided into following three sections.
Section I English (50 Questions); **Section II** Social II Social Science (30 Questions) and **Section III** Hindi (20 Questions).
2. Each question carries 1 Mark.
3. The candidate is expected to attempt all the questions.

Section I English

Directions (Q. Nos. 1-5) Read the passage carefully and choose the best answer to each question out of the four alternatives.

Passage

Chameleons can make their skin colour change but not because they decide to. The colour changes to help the chameleon avoid its enemies. It is a form of camouflage, a disguise that lets it blend in with its surroundings. The changes are actually determined by environmental factors, such as light and temperature. Bright sunlight causes the skin to get darken. On cool nights, the colour fades to a creamy colour. The colour also changes when chameleons are excited, angry or afraid. The colour change is rapid and increases when the chameleon is handled, injured, or approached by another chameleon. There are many types of chameleons. Almost half of them are found on the African Island of Madagascar. The others mostly occur in the Sahara desert, with few in Western Asia and the Sahara desert, with few in Western Asia and Southern Europe. Chameleons live in trees; where they usually eat insects. Very large chameleons may even use their sticky tongues to catch birds.

1. A chameleon's colour changes to help it
 - a) Fly away
 - b) Look beautiful
 - c) Avoid its enemies
 - d) Attract prey
2. Chameleons change colour when they are
 - a) Excited, angry or hungry
 - b) Afraid, excited or angry
 - c) Angry, excited or happy
 - d) Afraid, angry or hungry
3. The colour changing ability of a chameleon is a form of camouflage which is a
 - a) Colour that fades
 - b) Disguise that lets it blend in with its surroundings
 - c) Dance done by chameleons
 - d) Disease which affects chameleons
4. The colour changes are determined by
 - a) Light and wind
 - b) Light and pressure
 - c) Light and temperature
 - d) Pressure and temperature
5. Half of the world's chameleons are found
 - a) On the Asian Island of Madagascar
 - b) In the Sahara Desert
 - c) On the African Island of Madagascar
 - d) In the continent of Asia

Directions (Q. Nos.6-15) Fill in the blanks with the correct parts of speech form the given alternatives.

6. **How much did you spend _____ roses?**

- a) In
- b) On**
- c) Of
- d) From

7. **The shirt is not expensive, I bought it _____.**

- a) Clearly
- b) Cheap
- c) Cheaply**
- d) Low

8. **He does not _____ any fixed principle.**

- a) Go through
- b) Go about
- c) Go upon
- d) Go with**

9. **The principal has given his _____ to the match.**

- a) Assent**
- b) Except
- c) Ascent
- d) refuse

10. **_____ of people come here to gossip.**

- a) Few
- b) Most
- c) A lot**
- d) Lot

11. **Telling a small lie sometimes enables one to avoid _____ another's feelings.**

- a) Hurting**
- b) Nothing
- c) Harming
- d) Stopping

12. **I could hardly recognize him _____ I saw him.**

- a) After
- b) But
- c) And
- d) When**

13. **Our teacher encouraged _____ setting the poem to music.**

- a) His
- b) Him**
- c) He
- d) He's

14. **_____ Australian and _____ European are there among the tourists.**

- a) An. an
- b) The, the
- c) An, a**
- d) A, an

15. **I praise _____ honesty of this boy.**

- a) The**
- b) A
- c) An
- d) Your

Direction (Q. Nos. 16-25) Spot the error in the following sentences

16. **A sun is (a)/ shining brightly (b)/ about (c)/the horizon (d).**

- a) A sun is**
- b) Shining brightly
- c) About
- d) The horizon

17. **Swati handed (a)/ over (b)/ a five rupees note (c)/ to the shopkeeper (d).**

- a) Swati handed
- b) Over
- c) A five rupees note**
- d) To the shopkeeper

18. **The spectators (a)/ are requested (b)/ to be in (c)/its seats (d).**

- a) The spectators
- b) Are requested
- c) To be in
- d) Its seats**

19. **The film show (a)/ began (b)/ before we arrived (c)/ in the hall (d)**

- a) The film show
- b) Began**
- c) Before we arrived
- d) In the hall

20. He walked (a)/ quick so that (b)/ he would not (c)/ be late (d).

- a) He walked
- b) Quick so that**
- c) He would not
- d) Be late

21. Kartik who was (a)/ junior in most (b)/ other employees (c)/ has been promoted (d)

- a) Kartik who was
- b) Junior in most**
- c) Other employees has
- d) Benn promoted

22. No sooner did (a)/ she reach (b)/ home then (c)/ it started raining (d)

- a) No sooner did
- b) She reach
- c) Home them**
- d) It started raining

23. Unless you gave (a)/ your consent (b)/ was shall not accept (c)/ this project (d)

- a) Unless you gave**
- b) Your consent
- c) Was shall not accept
- d) This project

24. Neha is (a)/ the prettiest (b)/ of the two (c)/ girls (d)

- a) Neha is
- b) The prettiest**
- c) Of the two
- d) Gils

25. Many a student (a)/ are (b)/ frustrated (c)/ Because of unemployment (d)

- a) Many a student
- b) Are**
- c) Frustrated
- d) Because of unemployment

Directions (Q. Nos 26-27) Choose the most appropriate form of the reported speech in the following

26. Ravi said to me, "Where have you been last night".

- a) Ravi asked me where had I been the previous night
- b) Ravi asked me where I have been the previous night.
- c) Ravi asked me where I was the previous night.
- d) Ravi asked me where had been the previous night.**

27. "Be careful, the steps are slippery" , I wanted him.

- a) I warned him to be careful as the steps were slippery.**
- b) I warned him to be careful as the steps are slippery
- c) I warned him to be careful and the steps were slippery.
- d) I told him to be careful and the steps are slippery.

Direction (Q. Nos. 28-29) Choose the correct passive from of the given sentence from the following

28. Don't subject the animals to cruelty

- a) The animals are not to be subject to cruelty
- b) The animals shall not be subject to cruelty.
- c) The animals will not be subjected to cruelty.
- d) The animals should not be subject to cruelty.**

29. Who allowed them to watch TV?

- a) By who they are allowed to watch TV?
- b) By whom they were allowed to watch TV?
- c) By whom were they allowed to watch TV?**
- d) By who have they been allowed to watch TV?

Directions (Q. Nos. 30-31) Fill in the blanks with suitable clause to complete the sentences

30. No one knows _____

- a) Who he is**
- b) Whom he is
- c) Why he is
- d) When he is

31. She will not let you go _____.

- a) Unless you will bless her.
- b) Unless you do not bless her.
- c) Unless you bless her.**
- d) If you bless her.

Directions (Q. Nos. 32-33) Rearrange the following words to make meaningful sentences.

**32. The Indian (1)/ the English (2) Farmers (3)
Exploited (4)**

1. The Indian
2. The English
3. Farmers
4. Exploited

- a) 1234
- b) 3142
- c) **2413**
- d) 1432

**33. Very high fines (1)/ the (2) to pay (3) poor farmers
had (4)**

1. Very high fines
2. The
3. To pay
4. Poor farmers had

- a) 1234
- b) 4321
- c) 2431
- d) **1432**

Directions (Q. No's 34-37) Choose the one word which can be substituted for the given words/ sentences.

34. That which can be drunk.

- a) Edible
- b) Palatable
- c) Culpable
- d) **Potable**

35. Something that is beyond the power of nature.

- a) **Supernatural**
- b) Magical
- c) Preternatural
- d) Unnatural

36. Select the most suitable meaning of the phrase.

A feather in one's Cap

- a) Rewarding
- b) An exciting Moment
- c) **An achievement**
- d) Great joy

37. Find the suitable phrase for the group of words.

Being in the same difficult situation

- a) **Sailing in the same boat**
- b) Run parallel

- c) To beat about the bush
- d) To face the music

Direction (Q. Nos. 38-39) In the following questions, choose the one which best expresses the meaning of the given word

38. Humiliation:

- a) Elimination
- b) **Dishonor**
- c) Irritation
- d) Damage

39. Valiant

- a) **Courageous**
- b) Quarrelsome
- c) Cheerful
- d) Repulsive

Directions (Q. Nos. 40-41) In the following questions choose the word opposite in meaning to the given word.

40. Boisterous

- a) Naughty
- b) **Quiet**
- c) Reserved
- d) Bouncy

41. Veteran

- a) Activist
- b) Enthusiast
- c) **Novice**
- d) Master

Directions (Q. Nos.42-43) In the following questions, find the correctly spelt word

42. (a) Mischievous

- (b) Mischievious
- (c) Mischeivous
- (d) Mischievisus

43. (a) Sparro

- (b) **Sparrow**
- (c) Sperrow
- (d) Sparow

Directions (Q. Nos. 44-45) Find the misspelt word out of the following.

44. (a) Centenarian
(b) Centegrade
(c) Cellulose
(d) Chocolate

45. (a) Governor
(b) Guardian
(c) Grammer
(d) Genuine

Directions (Q. Nos. 46-50) fill in the blanks with most suitable alternative given below in the following passage.

The thermometer is an instrument for measuring temperature. The (46) form consists of a (47) tube with a fine (48) One end of the (49) is blown to form. (50) Bulb and the other is closed.

46. (a) Seen
(b) Unseen
(c) Heard
(d) Common

47. (a) Brass
(b) Glass
(c) Plastic
(d) Metal

48. (a) Boar
(b) Cavity
(c) Mole
(d) Bore

49. **(a) Tube**
(b) Edge
(c) Centre
(d) Place

50. (a) That
(b) A
(c) all
(d) An

Section II Social Science

51. Who among the following founded the Young Bengal Movement?

- a) Ram Krishna Paramhansa
b) S. N. Banerjee
c) DevendraNath Tagore
d) Henry Vivian Derozio

52. According to the census 2011 the population density of India is:

- a) 385 persons per sq. km.
b) 382 persons per sq. km.
c) 390 persons per sq. km
d) 380 persons per sq. km

53. The Bhopal Gas Tragedy occurred in which of the following year?

- a) 1984**
b) 1980
c) 1986
d) 1989

54. Which of the following cities is known as the

'Silicon Platform?'

- a) Mumbai
b) Bengaluru
c) Hyderabad
d) Chennai

55. Who among the following divided Indian history based on the religion of the rulers into three period-Hindu, Muslim and British?

- a) James Princep
b) Warren Hastings
c) Stuart Mill
d) James Mill

56. The purpose of the 'Directive Principles of State policy' is to ensure

- a) Social reforms
b) Economic Reforms
c) Both 'a' and 'b'
d) None of these

57. Consider the following statements about Rajya Sabha;

- A. It is also called the 'Council of States'
- B. It has 233 elected members.
- C. It has 14 nominated members by the President of India.

Select the correct answer using the code given below:

- a) Both A and C
- b) Both B and C
- c) Only B
- d) Both A and B

58. Which one of the following statements is incorrect about subsistence farming?

- a) It is mainly practiced to meet the needs of the farmer's family.
- b) Mechanised harvesting techniques are used in this farming.
- c) It does not need intensive labour
- d) It needs less technology.

59. In 1922 Gandhiji abruptly called off the Non-cooperation Movements because:

- a) A crowd of peasants set fire to a police station in ChauriChaura.
- b) Ideological differences emerged between Gandhiji and other leaders.
- c) Gandhiji was unhappy with the passing of RowlattAct.
- d) None of the above

60. Which of the following minerals is also known as 'Black gold'?

- a) Petroleum
- b) Diesel
- c) Coal
- d) Natural Gas

61. Which of the following statements is/are correct about the Parliamentary form of Government in India?

- a) All citizens of the country, irrespective of their social background, have a direct role in electing their representatives
- b) The constitution guarantees universal adult suffrage for all citizens.

- c) The representative are accountable to the people
- d) All of the above

62. TISCO the leading steel producing company in India was established in:

- a) 1947
- b) 1907
- c) 1917
- d) 1922

63. Who among the following was not associated with the Battle of Plassey?

- a) Sirajuddaulah
- b) Robert Clive
- c) Mir Jafar
- d) MurshidQuli Khan

64. Which of the following can be used as primary source of history?

- a) Epic poetry
- b) Public opinion
- c) Manuscripts
- d) All of these

65. To ensure that workers are not under paid but are paid fairly, which of the following measures have been taken by the government?

- a) Minimum wages for all levels of workers have been set.
- b) Government gives subsidy to private employees.
- c) Government gives compensation to the workers
- d) None of the above

66. Who among the following led the Revolt of 1857 at Kanpur?

- a) Nana Sahab
- b) Kunwar Singh
- c) Rani AvantibaiLodhi
- d) Begaum Hazrat Mahal

67. Which one of the following statements is not correct about the Lok Sabha?

- a) It is also known as the house of people
- b) Its present strength is 545
- c) Its maximum strength can be 548

- d) It has two nominated members by the President of India from the Anglo-Indian Community.

68. The dispute relating to sale/purchase of an article is a subject to

- a) Criminal law
- b) Civil law**
- c) Both 'a' and 'b'
- d) None of these

69. What proportion of earth's surface is covered by land?

- a) 30%**
- b) 70%
- c) 35%
- d) 75%

70. Which of the following features of soil is/are determined by the parent rocks?

- a) Minerals
- b) Colour
- c) Texture
- d) All of these**

71. The east India Company established its first factory in which year?

- a) 1624
- b) 1611**
- c) 1602
- d) 1619

72. Who among the following is known as the Tiger of Mysore?

- a) Haider Ali
- b) Zafar Khan
- c) Tipu Sultan**
- d) Bakht Khan

73. Which of the following is/are correct about FIR?

- a) Police can begin investigation into a crime only after registration of an FIR
- b) It is compulsory for an officer-in-charge of a police station to register an FIR, when a person gives information about a cognizable offence.
- c) The FIR usually consist of the date, time and place of the offence

d) All of the above

74. Which of the following has the power to impeach the president of India?

- a) The Supreme court of India
- b) The Rajya Sabha
- c) The Lok Sabha
- d) The Parliament**

75. In which year the 'Permanent settlement' was introduced?

- a) 1773
- b) 1793**
- c) 1784
- d) 1792

76. Wood's Dispatch of 1854 was associated with

- a) Education**
- b) Industry
- c) Railway
- d) Famine

77. What is the official term of president's office?

- a) 6 years
- b) 5 years**
- c) 4 years
- d) 10 years

78. Where and when the first cement plant was set-up

- a) Ahmedabad in 1809
- b) Vellore in 1905
- c) Kolkata in 1869
- d) Chennai in 1904**

79. Wheat is an example of

- a) Kharif crops
- b) Zaid Crops
- c) Rabi Crops**
- d) None of these

80. Select the incorrect statements above Black soil?

- a) It has the ability to hold moisture
- b) One of the main property is that when it is wet cracks are developed**
- c) Suitable for cultivation of cotton
- d) All are correct

81. 'कष्टभोगी' में समास है

- a) कर्मधारय
- b) द्विगु
- c) तत्पुरुष
- d) द्वन्द्व

82. निम्नलिखित में से कौन-सा शब्द जाति वाचक संज्ञा का उदाहरण है?

- a) स्त्रीत्व
- b) द्वीप
- c) भीड़
- d) इनमें से कोई नहीं

83. 'पण्डिताइन' में प्रत्यय है

- a) इन
- b) न
- c) अन
- d) आइन

84. जिन शब्दों में स्त्री जाति का बोध होता है, उन्हें क्या कहते हैं?

- a) स्त्रीलिंग शब्द
- b) नपुंसकलिंग शब्द
- c) उभयलिंग शब्द
- d) पुल्लिंग शब्द

85. 'पंखा' का बहुवचन होगा

- a) पखे
- b) पंखये
- c) पंखे
- d) ये सभी

86. 'वृक्ष से पत्तागिरा' वाक्य में रेखांकित शब्द में कारक है

- a) कर्ता
- b) करण
- c) कर्म
- d) अपादान

87. देवनागरी लिपि में लिखी जाने वाली भाषा कौन – सी नहीं है

- a) मराठी
- b) अंग्रेजी
- c) कोंकणी
- d) नेपाली

88. किस विकल्प के सभी सर्वनाम 'अन्य पुरुष' के हैं?

- a) वह, वे, उनका, उसके, उसकी
- b) वह, तुम, तुम्हारा, उसका, उसकी

- c) वह, हम, मेरा, वे, उसका
- d) उपरोक्त में से कोई

89. जिनका उच्चारण स्वतन्त्र रूप से होता है, उन्हें क्या कहा जाता है?

- a) ह्रस्वस्वर
- b) दीर्घस्वर
- c) व्यंजन
- d) स्वर

90. 'त्योहार' शब्द का सही वर्ण-विच्छेद क्या होगा?

- a) त् + अ + य् + ओ + ह् + आ + र्
- b) त् + य् + औ + ह् + आ + र् + अ
- c) त् + यौ + ह् + आ + र् + अ
- d) उपरोक्त में से कोई नहीं

91. 'दुष्काल' का सन्धि विच्छेद होगा

- a) दुः + काल
- b) दु + काल
- c) दुष् + काल
- d) दुष् + कल

92. विशेषण के कितने प्रकार होते हैं?

- a) दो
- b) चार
- c) पाँच
- d) छह

93. 'सूचिका' का तद्भव रूप..... है।

- a) सोचना
- b) सही
- c) सुई
- d) इनमें से कोई नहीं

94. 'यहीं बैठकर पढ़ो' वाक्य का उदाहरण है।

- a) विधिवाचक
- b) इच्छावाचक
- c) संकेतवाचक
- d) आज्ञावाचक

95. 'नीलिमा रोती है' वाक्य में कौन-सी क्रिया है?

- a) सकर्मक
- b) द्विकर्मक
- c) अकर्मक
- d) सकारक

निर्देश (प्र.सं. 96-100) दिए गए अनुच्छेद को ध्यानपूर्वक पढ़िए और उससे सम्बन्धित प्रश्नों के उत्तर दीजिए।

देश और जाति के उत्थात में शिक्षा पहला सोपान है। बिना शिक्षा के देश न तो कृषि सम्बन्धी उन्नति कर सकता है और न औद्योगिक। वैज्ञानिक शिक्षा का अभाव हमारे औद्योगिक पिछड़ेपन का मूल कारण है। हमारे लुहार – मजदूरों को सैद्धान्तिक ज्ञान का अभाव रहता है, इसलिए वे नए आविष्कार करने में असमर्थ रहते हैं। शिक्षा के बिना मनुष्य अपने प्रारम्भिक आविष्कारों की भी माँग नहीं कर सकता और न अपने स्वाभिमान को सुरक्षित रख रखता है। शिक्षा के बिना रहन-सहन का स्तर भी ऊँचा नहीं उठ सकता। बहुत से सम्पन्न लोग भी धन का सदुपयोग शिक्षा के अभाव के कारण नहीं कर सकते।

96. देश और जाति के उत्थान के लिए प्रथम चरण है

- a) औद्योगिक उन्नति
- b) कृषि सम्बन्धी उन्नति
- c) शिक्षा**
- d) सैद्धान्तिक ज्ञान

97. औद्योगिक पिछड़ेपन का मूल कारण है

- a) वैज्ञानिक शिक्षा
- b) वैज्ञानिक शिक्षा का अभाव**
- c) शिक्षा
- d) उपरोक्त में से कोई नहीं

98. अपने स्वाभिमान को सुरक्षित रख सकता है

- a) मजदूर
- b) उच्च वर्ग
- c) शिक्षित वर्ग**
- d) निम्न वर्ग

99. रहन-सहन का स्तर ऊँचा उठता है

- a) औद्योगिकीकरण से
- b) धन से
- c) ज्ञान से**
- d) स्वाभिमान से

100. शिक्षा के अभाव में क्या सम्भव नहीं होता

- a) धन का सदुपयोग**
- b) धन का दुरुपयोग
- c) व्यवसाय करना
- d) उपरोक्त में से कोई नहीं

Answer Key

1. c
2. b
3. b
4. c
5. c
6. b
7. c
8. d
9. a
10. c
11. a
12. d
13. b
14. c
15. a
16. a
17. c
18. s
19. b
20. b
21. b
22. c
23. a
24. b
25. b
26. d
27. a
28. d
29. c
30. a
31. c
32. c
33. d
34. d
35. a
36. c
37. a
38. b
39. a
40. b
41. c
42. a
43. b
44. b
45. c
46. d

47. b
48. d
49. a
50. b
51. d
52. b
53. a
54. b
55. d
56. c
57. d
58. b
59. a
60. a
61. d
62. b
63. d
64. d
65. a
66. a
67. c
68. b
69. a
70. d
71. b
72. c
73. d
74. d
75. b
76. a
77. b
78. d
79. c
80. b
81. c
82. b
83. d
84. a
85. c
86. d
87. b
88. a
89. a
90. b
91. a
92. b
93. c
94. d

- 95. c
- 96. c
- 97. b
- 98. c
- 99. c
- 100. d

The Winning Edge

(PART – II)

Instructions

1. This question paper contains 100 questions, which is divided into following two sections.

Section I Mathematics (50 Questions); Section II Science (50 Questions)

2. Each question carries 1 Mark.
3. The candidate is expected to attempt all questions.

Section I Mathematics

1. The difference in the measure of two complementary angles is 12° , then the measure of the angles, are

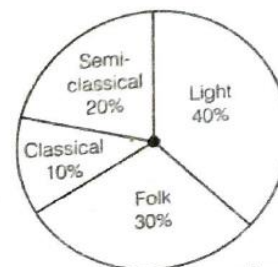
a) $51^\circ, 39^\circ$
b) $60^\circ, 30^\circ$
c) $45^\circ, 45^\circ$
d) $51^\circ, 51^\circ$

b) 5:3

c) 3:8

d) 5:8

Directions (Q. No's 6 and 7) A pie chart is given below



Peoples like different type of music

2. The surface area of a sphere of diameter 14 cm, is

a) 166 cm^2
b) 196 cm^2
c) 661 cm^2
d) 616 cm^2

3. The sum of three consecutive even numbers is 138, then the greatest of these number is

a) 44
b) 46
c) 42
d) 48

4. The factorization of $84 - 2r - 2r^2$, is

a) $(6 - r)(r + 7)$
b) $(7 - r)(r + 6)$
c) $2(6 - r)(r + 7)$
d) $2(7 - r)(r + 7)$

5. If $\frac{x^2 + y^2}{x^2 - y^2} = \frac{17}{8}$, then the value of $x : y$, is

a) 3:5

6. Which type of music is liked by the maximum number of people?

a) Semi-Classical
b) Classical
c) High
d) Folk

7. If a cassette company were to make 1000 CD'S, how many of semi-classical and folk would they make?

a) 200, 400
b) 100, 300
c) 200, 300
d) 100, 400

8. The value of $\frac{\sqrt{24} + \sqrt{216}}{\sqrt{96}}$, is

- a) 8
- b) 6
- c) 4
- d) 2

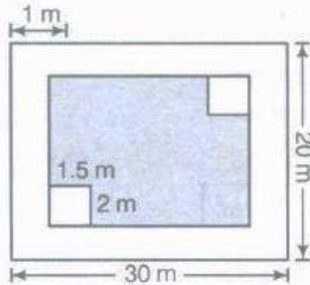
9. Navin purchased a cellphone for Rs. 12000 and sold it for Rs. 8000, then his loss percent, is

- a) 30%
- b) 33%
- c) $33\frac{1}{3}\%$
- d) $34\frac{1}{3}\%$

10. The value of $(3x + 2y)^2 + (3x - 2y)^2$, is

- a) $9x^2 + 4y^2$
- b) $18x^2 + 8y^2$
- c) $12xy$
- d) $24xy$

11. There are two rectangular flower beds of size $1.5\text{ m} \times 2\text{ m}$ each in the park as shown in the given figure and the rest has grass on it, then the area covered by grass, is



- a) 498 m^2
- b) 948 m^2
- c) 894 m^2
- d) 894 m^2

12. If $5^{3x-1} \div 25 = 125$, then the value of x , is

- a) 4
- b) 3
- c) 2
- d) 1

13. A car is travelling 60km in 2 h, then the distance travelled by the car in 6h, if the speed remains constant, is

- a) 60km
- b) 120km
- c) 180km
- d) 240km

14. If $x - \frac{1}{x} = 7$, then the value of $x^2 + \frac{1}{x^2}$, is

- a) 49
- b) 50
- c) 51
- d) 52

15. A pair of integers whose product is -36 and whose difference is 15, is

- a) -3,12
- b) -12,3
- c) 9,-4
- d) 4,-9

16. The HCF of $\frac{12}{7}, \frac{18}{7}, \frac{24}{7}$ is

- a) $12/7$
- b) $6/7$
- c) $4/7$
- d) $3/7$

17. By prime factorization, the value of the cube root of 5832, is

- a) 16
- b) 17
- c) 18
- d) 19

18. If two interior angles on the same side of transversal intersecting two parallel lines are in the ratio 3:2, then the greater of the two angles, is

- a) 72°
- b) 36°
- c) 108°
- d) 44°

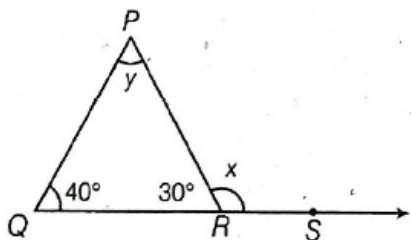
19. The nature of $(-5 + 2\sqrt{5} - \sqrt{5})$ is

- a) Natural
- b) Integer
- c) Rational
- d) Irrational

20. If the total surface area of a cube is 486 cm^2 , then its lateral surface area.

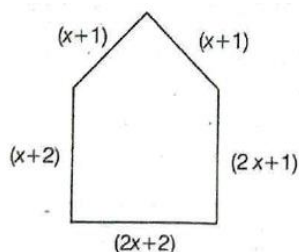
- a) 243cm^2
- b) 342cm^2
- c) **324cm^2**
- d) 432cm^2

21. In the following figure, then the value of $2x$, is



- a) **300°**
- b) 200°
- c) 100°
- d) 50°

22. For what value of x , the perimeter of shape is 77 cm?



- a) 14 cm
- b) 12 cm
- c) **10 cm**
- d) 8 cm

23. If $p(x) = x^3 - 4x^2 + x + 6$, then the value of $p(3)$ is

- a) 27
- b) 10
- c) 4
- d) **0**

24. If $a:b = 5:3$, then the value of $(5a + 8b):(6a - 7b)$, is

- a) 9:49
- b) **49:9**
- c) 11:50
- d) 50:11

25. If you have a spinning wheel with 3 green sectors, 5 black sectors and 10 red sectors, then the probability of getting a non-black sector is

- a) $\frac{1}{9}$
- b) $\frac{1}{6}$
- c) $\frac{5}{9}$
- d) **$\frac{13}{18}$**

26. The value of $\sqrt{248 + \sqrt{52 + \sqrt{144}}}$, is

- a) 17
- b) **16**
- c) 15
- d) 14

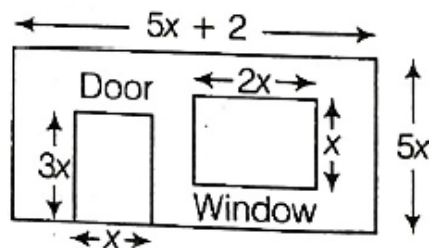
27. Find the compound interest on Rs.48000 for one year at 8% per annum, when compounded half-yearly.

- a) Rs. 51916
- b) Rs. 51916.80
- c) **Rs. 3916.80**
- d) Rs. 3910.80

28. If lemons were bought at Rs. 48 per dozen and sold at the rate of Rs. 48 per 10, then the gain or loss per cent, is

- a) 40% profit
- b) 40% loss
- c) **20% profit**
- d) 20% loss

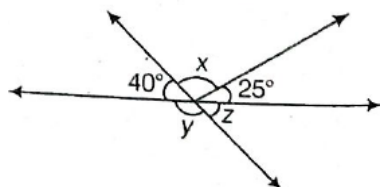
29. The alongside figure shows the dimensions of a wall having a window and a door of a room. Then, the algebraic expression for the area of the wall to be painted, is



- a) $x(2x + 1)$ sq unit
- b) $2x(x + 1)$ sq unit
- c) **$10x(2x + 1)$ sq unit**

d) $(x + 1)$ sq unit

30. The values of the angles x, y and z are respectively, (see figure)



a) $115^\circ, 140^\circ, 40^\circ$

b) $40^\circ, 140^\circ, 115^\circ$

c) $140^\circ, 40^\circ, 115^\circ$

d) $115^\circ, 40^\circ, 140^\circ$

31. If some migratory birds travel as much as 15000 km to escape the extreme climatic conditions at home, then the distance in meters using scientific notation, is

a) $1.5 \times 10^4 m$

b) $1.5 \times 10^5 m$

c) $1.5 \times 10^6 m$

d) $1.5 \times 10^7 m$

32. 30 persons can reap a field in 17 days. How many more persons should be engaged to reap the same field in 10 days?

a) 17

b) 30

c) 51

d) 21

33. A negative integer and a positive integer whose difference is $+2$, are

a) $-1, 3$

b) $-2, 4$

c) $-1, 1$

d) $-4, 6$

34. Six bells begin to toll together at the interval of 10s, 15sec, 20sec, 25sec, 30sec, 35sec respectively, then how many times will they toll together in the span of 7h?

a) 12

b) 10

c) 8

d) 6

35. Difference of two perfect cubes is 189. If the cube root of the smaller of the two numbers is 3, the cube root of the larger number, is

a) 27

b) 36

c) 9

d) 6

36. If the speed of a boat in still water is 15 km/h. It can go 30km upstream and 45 km downstream in the same time, then the speed of stream.

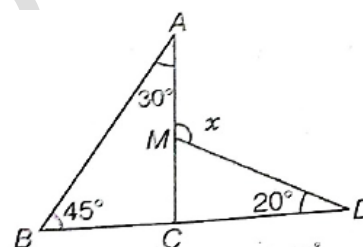
a) 3 km/h

b) 4 km/h

c) 5 km/h

d) 6 km/h

37. The value of x is



a) 75°

b) 95°

c) 105°

d) 125°

38. Which number is not divisible by 9?

a) 108

b) 215

c) 387

d) 693

39. If a rectangular sheet of paper $44 \text{ cm} \times 18 \text{ cm}$ is rolled along its length and a cylinder is formed, then the radius of the cylinder.

a) 14 cm

b) 7 cm

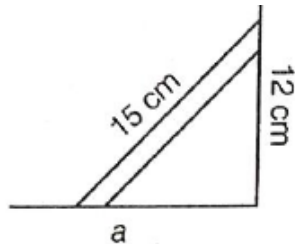
c) 12 cm

d) 6 cm

40. If $12^{1998} - 2^{1997} - 2^{1996} + 2^{1995} = K \cdot 2^{1995}$, then the value of K is

- a) 1
- b) 2
- c) 3**
- d) 4

41. A 15m long ladder reached a window 12 m high from the ground on placing it against a wall a distance α . Find the distance of the foot of the ladder from the wall.



- a) 10m
- b) 9m**
- c) 8m
- d) 4m

42. The present age of father is four times the age of his son. After 10 years, age of father will become three times the age of his son. Their present ages, are
- a) 20 yr, 80 yr**
 - b) 10 yr, 40 yr
 - c) 5 yr, 20 yr
 - d) 1 yr, 20 yr

43. The value of 103×107 without multiplying directly, is
- a) 10121
 - b) 11201
 - c) 11021**
 - d) 10112

44. In a Mathematics test given to 15 students, the following marks (out of 100) are recorded 41,39,48,52,46,62,54,40,96,52,98,40,42,52,60, then the means of this data.
- a) 50
 - b) 59.80
 - c) 54
 - d) 54.80**

45. The least number that must be added to 1500, so as to get perfect square, is
- a) 19
 - b) 20
 - c) 21**
 - d) 22

46. The value of $\sqrt[3]{27} + 3\sqrt{0.008} + 3\sqrt{0.064}$, is
- a) 2.6
 - b) 3.6**
 - c) 4.6
 - d) 5.6

47. The probabilities of a student getting A,B,C and D grades are 0.35, 0.25, 0.35 and 0.05. Then, the probability that a student gets at most grade C., is
- a) 0.95
 - b) 0.70
 - c) 0.65
 - d) 0.40**

48. Which of the property works in the following identity?

$$(8 + 5) + 3 = 8 + (5 + 3)$$

- a) Distributive
- b) Associative**
- c) Commutative
- d) Closure

49. Efficiency of Kanchan is four times to that of Hina. If they will complete the work is 24 days by working together, then in how many days can Hina alone complete the work?
- a) 36 days
 - b) 24 days
 - c) 144 days**
 - d) 96 days

50. The sum required to earn a monthly interest of Rs. 1500 at 5% per annum at simple interest.
- a) Rs. 360000**
 - b) Rs. 36000
 - c) Rs. 180000
 - d) Rs. 18000

Section II Science

51. During dry weather while combing hair, sometimes we experience hair flying apart, the force responsible for this is

- a) Force of gravity
- b) Electrostatic force**
- c) Force of friction
- d) Magnetic force

52. On heating one end of iron rod, other end also gets heated. Such materials are called

- a) Good conductor of heat**
- b) Good insulator of heat
- c) Bad conductor of heat
- d) Heater

53. Which one records the distance travelled by a vehicle?

- a) Speedometer
- b) Manometer
- c) Otometre
- d) Odometer**

54. The pressure exerted by liquid due to increase in depth

- a) Reduces
- b) Increases**
- c) Remains same
- d) Depends on the nature of liquid

55. Which of the following is not always necessary to observe a shadow?

- a) Sun**
- b) Screen
- c) Source of light
- d) Opaque object

56. The object which partially allow the light to pass through it are called

- a) Transparent
- b) Luminous
- c) Opaque
- d) Translucent**

57. Which of the following can never form a circular shadow?

- a) A ball
- b) A flat disc
- c) A shoe box**
- d) An ice-cream cone

58. Bouncing back of ray of light from shining surface on which it was incident is known as

- a) Refraction
- b) Bending
- c) Reflection**
- d) Dispersion

59. Circuit breaker device which can be used in place of fuse in domestic electric wiring is called

- a) DCN
- b) MCD
- c) MCB**
- d) BCM

60. If the number of turns in the coil of an electromagnet is more, the strength of the electromagnet will be

- a) Lesser
- b) Greater**
- c) Double
- d) Same

61. Which of the following characteristic is most suitable material for making the core of an electromagnet?

- a) Brass
- b) Aluminium
- c) Iron**
- d) Steel

62. Amount of heat required to warm an object depends on

- a) Mass of object
- b) Temperature change
- c) Nature of substance
- d) All of these**

63. At atmospheric pressure, water boils at 100°C . If pressure is reduced, then

- a) It still boils at same temperature

b) It now boils at a lower temperature

c) It now boils at a higher temperature

d) It does not boil at all

64. An iron ball at 40°C is dropped in a mug containing water at 40°C. The heat will

a) Flow from iron ball to water

b) Not flow from iron ball to water or from water to iron ball

c) Flow from water to iron ball

d) Increase the temperature of both

65. Stainless steel pans are usually provided with copper bottoms. The reason for this could be that

a) Copper bottom makes the pan more durable

b) Such pans appear colourful

c) Copper is a better conductor of heat than the stainless steel

d) Copper is easier to clean than the stainless steel

66. The normal range of vocal cords in women is

a) 20 mm

b) 10 mm

c) 15 mm

d) 40 mm

67. The loudness of sound is determined by its

a) Amplitude of vibration

b) Ratio of amplitude and frequency of vibration

c) Frequency of vibration

d) Product of amplitude and frequency of vibration

68. Galvanisation is a process used to prevent the rusting of which of the following?

a) Iron

b) Zinc

c) Aluminium

d) Copper

69. Silk fibre is obtained from

a) Fleece of sheep

b) Cotton ball

c) Cocoon

d) Shiny jute stalk

70. Neutralisation reactions is a

a) Physical and reversible change

b) Physical change that cannot be reversed

c) Chemical and reversible change

d) Chemical change that cannot be reversed

71. Pick the synthetic fibre out of the following.

a) Cotton

b) Nylon

c) Jute

d) Wool

72. Wool fibre cannot be obtained from which of the following?

a) Goat

b) Llama

c) Alpaca

d) Moth

73. Phenolphthalein is a synthetic indicator and its colour in acidic and basic solutions respectively are

a) Red and blue

b) Blue and red

c) Pink and colourless

d) Colourless and pink

74. Which of the following is not a common property of plastics?

a) Non-reactive

b) Light in weight

c) Durable

d) Good conductor of electricity

75. The substance that will be flattened on beating with a hammer is

a) Crystal of iodine

b) Lump of sulphur

c) Piece of coal

d) Zinc granule

76. The most suitable material for the preparation of handles of cooking utensils is

a) Polythene

b) Bakelite

c) Nylon

d) PVC

77. Which of the following is not an allotrope of carbon?

- a) Graphite
- b) Coal
- c) Charcoal
- d) All of these are allotropes of carbon**

78. Metals are generally solid, which of the following metals is in the liquid state at room temperature?

- a) Mercury**
- b) Silver
- c) Aluminium
- d) Sodium

79. Coal is processed in industries to get some useful products. Which of the following is not obtained from coal?

- a) Coke
- b) Coal tar
- c) Coal gas
- d) CNG**

80. Metals generally react with dilute acids to produce hydrogen gas. Which one of the following metals does not react with dilute hydrochloric acid?

- a) Magnesium
- b) Aluminium
- c) Iron
- d) Copper**

81. Choose the correct statement from the following.

- a) It is difficult to transport natural gas through pipes
- b) The disadvantage of natural gas is that it cannot not used directly for burning in homes
- c) Natural gas is stored under high pressure as compressed natural gas**
- d) Natural gas cannot be used for power generation

82. If a person's clothes catch fire, the best way to extinguish the fire is to

- a) Throw water on the clothes
- b) Use fire extinguisher.
- c) Cover the person with a woolen blanket**

d) Cover the person with a polythene sheet

83. Turmeric is a natural indicator. On adding its paste to acid and base separately, which colours would be observed?

- a) Yellow in both acid and base
- b) Yellow in acid and red in base**
- c) Pink in acid and yellow in base
- d) Red in acid and blue in base

84. Which of the following is not a plastid?

- a) Chloroplast
- b) Chromoplast
- c) Leucoplast
- d) Ribosome**

85. Which of the following cells does not have a nucleus?

- a) White blood cell
- b) Red blood cell**
- c) Nerve cell
- d) Muscle cell

86. A suitable term for the various components of cells is

- a) Tissue
- b) Cell organelles**
- c) Chromosomes
- d) Genes

87. The mode of vegetative reproduction where scion and stock are used is called

- a) Budding
- b) Grafting**
- c) Cutting
- d) Layering

88. Which among the following have hairs on seed?

- a) Drumstick
- b) Cotton**
- c) Oak
- d) Maple

89. Biological pollution in water is caused by

- a) Coal mines
- b) Domestic sewage and animal excreta
- c) Oil spills
- d) Chemicals like paint**

90. Which of these does not prevent growth of bacteria?

- a) Salt
- b) Oil
- c) Sugar
- d) **Water**

91. Potable water is the water which is

- a) Obtained from a river
- b) Obtained from a lake
- c) **Pure and fit for drinking**
- d) Used only for washing clothes

92. Scientist who discovered the fermentation

- a) Alexander Fleming
- b) **Louis Pasteur**
- c) Johann Mendel
- d) Charles Darwin

93. Given below is a list of edible plants.

- (i) Banana
- (ii) Pumpkin
- (iii) Lady finger
- (iv) Brinjal

Which pair of plants has two or more edible parts?

- a) (i) and (ii)
- b) (ii) and (iii)
- c) **(ii) and (iv)**
- d) (i) and (iv)

94. Read each set of terms and identify the odd set.

- a) Cow, milk, egg
- b) Hen, meat, egg
- c) Goat, milk, meat
- d) **Plant, vegetable, butter, milk.**

95. Cyanocobalamin is vitamin

- a) **B₁₂**
- b) B₁
- c) B₂
- d) K

96. Minerals and vitamins present in food are

- a) **Protective**
- b) Energy giving
- c) Body building
- d) Roughage

97. The most common carrier of communicable diseases is

- a) Ant
- b) **Housefly**
- c) Dragonfly
- d) Spider

98. Which one of the following sources of protein is different from other?

- a) Peas
- b) Grams
- c) Soybeans
- d) **Cottage cheese (paneer)**

99. The buds at the tip of the stem or its branches are called

- a) Axillary buds
- b) Nodal buds
- c) **Apical buds**
- d) Growing buds

100. Which one of the following plants does not have a tap root?

- a) Marigold
- b) Mango
- c) **Maize**
- d) Turnip

ANSWER KEY:

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

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