

Talent Search Exam. 2017

TEST
CODE **8000**

for VIII

BOOKLET

A

Duration : 2 Hours

Max. Marks : 360

Please read the instructions carefully. You are allotted 5 minutes specifically for this purpose.

INSTRUCTIONS

A. General :

1. This booklet is your question paper containing **90 questions**. The booklet has **8 pages**.
2. The question paper contains blank space on back for your rough work. No additional sheets will be provided for rough work.
3. It is mandatory to use **Blue or Black Ball Point Pen** to darken to appropriate circle in the answer sheet.
4. Blank papers, clipboards, log tables, slide rules, calculators, cellular phones, pagers and electronic gadgets in any form are not allowed to be carried inside the examination hall.
5. Fill in the boxes provided below on this page and also write your Name and Roll Number in the space provided.
6. Do not use white-fluid or any other rubbing material on answer sheet. Before handing over the answer sheet to the invigilator, candidate should check that **Roll No, Test code and Book Code** have been filled and marked correctly. Immediately after the prescribed examination time is over, the **Answer sheet is to be returned to the invigilator**.

B. Filling the Answer Sheet :

7. On **Side-1** of Answer Sheet write your name, Enrollment Number and Name of the centre in the respective boxes. **Do not write anything on Side-2.**
8. Put your signature space provided on the Answer Sheet affirming that you have verified this.
9. All question carry **+4 Marks** for Right Answer and **-1** for Wrong Answer.

PROCEDURE OF FILLING UP THE ANSWERS IN ANSWER SHEET

Wrong Filling

- B C D Tick mark
- B C D Cross mark
- B C D Half filled or semi dark
- B C D Light filled

Right Filling

- B C D Fully darken with Pen
- B C D Fully darken with Pen
- B C D Fully darken with Pen
- B C D Fully darken with Pen

Name of the candidate (In Capital Letters)

Enrollment Number

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I have read all the instruction and shall abide by them.

.....

(Signature of the candidate)

I have verified all the information filled in by the candidate.

.....

(Signature of the Invigilator)

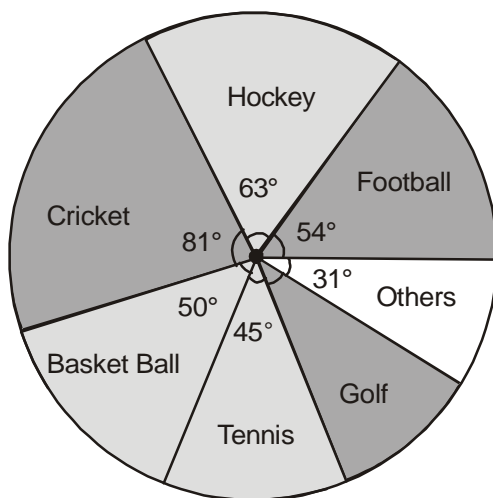
PART-I (MATHEMATICS)

1. Sum of two rational numbers is always
 - (a) an integer
 - (b) a whole number
 - (c) rational number
 - (d) natural number
2. $\frac{2}{3} \times \frac{1}{5} \times \frac{2}{5} \times \frac{2}{3} \times \frac{1}{5} \times \frac{2}{3} \times \frac{2}{5}$. This property is called.
 - (a) distributive property of multiplication over addition.
 - (b) distributive property of addition over multiplication
 - (c) distributive property of multiplication and addition.
 - (d) associative property
3. Sum of three consecutive even number is 96. Then the 3 consecutive numbers are
 - (a) 92, 94, 96
 - (b) 15, 17, 19
 - (c) 32, 34, 36
 - (d) 30, 32, 34
4. Instead of multiplying a given number by $\frac{8}{19}$, a student divided it by $\frac{8}{19}$. His answer was 297 more than the correct answer, then the given number is
 - (a) 123
 - (b) 152
 - (c) 178
 - (d) 197
5. $4^{44} + 4^{44} + 4^{44} + 4^{44} = 4^x$ then x is
 - (a) 44
 - (b) 45
 - (c) 176
 - (d) 11
6. If $a = b^{2z}$, $b = c^{2y}$ and $c = a^{2x}$ then $xyz =$
 - (a) $\frac{1}{8}$
 - (b) 2
 - (c) 1
 - (d) $\frac{1}{10}$
7. If $a^7 = 3$ then $\frac{a^3 \cdot a^{15}}{a^{10}}$ is :
 - (a) 7
 - (b) 3
 - (c) 81
 - (d) 28
8. If 4 men or 7 boys can build a house in 29 days then how many days will 12 men and 8 boys take to build the same house?
 - (a) 17 days
 - (b) 27 days
 - (c) 7 days
 - (d) 6 days
9. One tap can fill a tank in 2 hrs and another tap can empty it in 3 hours. How long will they take to fill the tank if both the taps are opened, when the tank was empty?
 - (a) 8 hours
 - (b) 10 hours
 - (c) 4 hours
 - (d) 6 hours
10. The number of edges of a polyhedron with 12 faces & 20 vertices is
 - (a) 26
 - (b) 28
 - (c) 30
 - (d) 32
11. A polyhedron can have
 - (a) 10 faces, 20 edges, 15 vertices
 - (b) 10 faces, 22 edges, 15 vertices
 - (c) 10 faces, 20 edges, 12 vertices
 - (d) 10 faces, 22 edges, 12 vertices
12. In a simultaneous throw of 2 dice, what is the probability of getting a total of 10 or 11?
 - (a) $\frac{1}{4}$
 - (b) $\frac{1}{6}$
 - (c) $\frac{7}{12}$
 - (d) $\frac{5}{36}$

For questions 13 to 15

The pie graph given below shows the spending of a country on various sports during a particular year. Study the graph carefully and answer the questions given below it.

Space For Rough Work



13. What percent of total spending is spent on Tennis?
- (a) $12\frac{1}{2}\%$ (b) 22%
(c) 25% (d) 45%
14. If the total amount spent on sports during the year was Rs. 2 crores, the amount spent on Cricket and Hockey together was.
- (a) Rs. 8,00,000 (b) Rs. 80,00,000
(c) Rs. 1,20,00,000 (d) Rs. 4,10,000
15. How much percent less is spent on Football than on Cricket?
- (a) $22\frac{2}{9}\%$ (b) 27%
(c) $33\frac{1}{3}\%$ (d) $37\frac{1}{2}\%$
16. Value of $6^2 + 7^2 + 42^2 =$
- (a) 53^2 (b) 43^2
(c) 49^2 (d) 13^2
17. Which of the following statements are true?
- (i) Square of a negative number is positive
(ii) Square of a prime number is prime
(iii) Square root of a natural number ending with 8
- ends with 4
- (iv) Square root of a 3 or 4 digit number contain 2 digits
- (a) (i) & (ii) (b) (ii) & (iii)
(c) (iii) & (iv) (d) (i) & (iv)
18. If $\sqrt{x} = \sqrt{441} - 0.02$ then the value of x is
- (a) 1.764 (b) 0.1764
(c) 1.64 (d) 2.64
19. Volume of a cube whose total surface area is 294 sq. cm, is
- (a) 21 cm^3 (b) 49 cm^3
(c) 216 cm^3 (d) 343 cm^3
20. Value of $\sqrt[3]{509} \sqrt[3]{25} \sqrt[3]{7} \sqrt[3]{1}$ is
- (a) 18 (b) 8
(c) 28 (d) 64
21. If a number is doubled, then its cube increases by
- (a) 2 times (b) 4 times
(c) 8 times (d) 9 times
22. Which of the following statements is correct?
- (a) $\sqrt[3]{0.064} \sqrt[3]{0.015625} \sqrt[3]{0.002197}$
(b) $\sqrt[3]{0.002197} \sqrt[3]{0.015625} \sqrt[3]{0.064}$
(c) $\sqrt[3]{0.015625} \sqrt[3]{0.064} \sqrt[3]{0.002197}$
(d) $\sqrt[3]{0.002197} \sqrt[3]{0.064} \sqrt[3]{0.015625}$
23. A sum of Rs. 12,000 at C.I. becomes double after 5 years. After 20 year it becomes
- (a) Rs. 96000 (b) Rs. 120000
(c) 124000 (d) Rs. 192000
24. 94 d 51 has 3 as a factor
- (a) $d = 2, 5$ or 8 (b) $d = 2, 5,$ or 6
(c) $d = 2, 3$ or 8 (d) $d = 4, 5$ or 6
25. 444 d 224 is a multiple of 6
- (a) $d = 3, 4$ or 7
(b) $d = 1, 4$ or 7
(c) $d = 3, 6$ or 9 (d) $d = 5, 6$ or 9

Space For Rough Work

PART-II (SCIENCE)

26. Which of the following is not a petroleum product
(a) gas (b) petrol
(c) Diesel (d) none of these
27. Carbonisation is
(a) Slow conversion of dead vegetation into coal
(b) Deposition of coal
(c) combustion of coal
(d) None of these
28. The resources present in limited quantity in nature and can be used over. Again are known as .
(a) Gases (b) Fuels
(c) Renewable Resources
(d) Energy
29. What is used for surfacing of roads?
(a) Paraffin wax (b) coke
(c) lubricants (d) Bitumen
30. Which of the following place has a network of pipelines which supply CNG?
(a) Kanpur (b) Jhansi
(c) Vadodara (d) Bhopal
31. PCRA stands for
(a) petroleum conservation Research Association
(b) petroleum consumption Research Association
(c) petroleum conservation resource Association
(d) petrochemical consumption research Association.
32. Hydrogen gas is obtained from .
(a) petroleum (b) Coal
(c) Coke (d) Natural gas.
33. Which of the following is inflammable substances
(a) petrol (b) wood
(c) paper (d) straw
34. Explosion is the evolution of
(a) heat (b) light
(c) sound (d) all of these
35. Calorific value is measured in
(a) kilo joule (b) kilograms
(c) kilometer (d) kilo joule per Kg.
36. Rapid combustion is
(a) When gas burns, it produces heat and light
(b) When material suddenly bursts into flames
(c) When there is evolution of heat
(d) None of these
37. Which is the hottest part in the flame of the candle
(a) Blue (b) Yellow
(c) Black (d) Wax part
38. Innermost zone is the
(a) Hottest part
(b) Moderately hot part
(c) Least hot part
(d) Cold part
39. Goldsmith uses ____ part of the flame for melting gold
(a) Outermost (b) Middle
(c) Innermost (d) Both (b) & (c)
40. Acid rain is caused by oxides of
(a) Sulphur, Nitrogen
(b) Sulphur, Carbon
(c) Carbon, Nitrogen
(d) Phosphorous, Carbon
41. Iodized salt does not contain the following compound?
(a) Sodium iodide
(b) Potassium iodide
(c) Common salt (d) Lithium iodide

Space For Rough Work

42. Which of the following is most suitable for the construction of a pillar?
(a) Cement mortar (b) Consete
(c) RCC (d) Pure cement
43. Which among the following is a detergent?
(a) Sodium stearate (b) Sodium chloride
(c) Sodium carbonate (d) Sodium lauryl sulphate
44. Which of the following metals can't be used in printed circuit boards?
(a) Copper (b) Aluminium
(c) Silver (d) Zinc
45. Chemical name of sand is-
(a) Silicon (b) Sodium silicate
(c) Silicon dioxide (d) Calcium silicate
46. Which of the following is a thermosetting plastic?
(a) Polyethylene (b) Nylon
(c) Terelyne (d) Bakelite
47. What is purest form of carbon?
(a) Graphite (b) Diamond
(c) Coke (d) Charcol
48. Fraction of petrolium used for making ointments and candles-
(a) Kerosene (b) Paraffin wax
(c) Lubricating oil (d) Diesel
49. Main constituent of LPG is-
(a) Ethane (b) Propane
(c) Butene (d) Butane
50. Heating of coal in absence of air is-
(a) Carbonisation
(b) Destructive distillation
(c) Fractional distillation (d) Refining
51. Which of the following gas is involved in acid rain?
(a) CO_2 (b) O_3
(c) CO (d) SO_2
52. Which one of the following is green house gas?
(a) Chlorofluoro carbons (b) CO
(c) Hydrocarbon (d) SO_3
53. Which of the following process is not associated with the formation of metal nitrates in soil?
(a) Acid rain
(b) Nitrogen fixation by Iguminous plants
(c) Lightening followed by precipitation
(d) Formation of auroras
54. Fountain ink pen leaks at higher altitudes. It is due to-
(a) Low atmospheric pressure
(b) High temperature
(c) High atmospheric pressure
(d) Both (a) and (b)
55. Incomplete combustion of fuel does not contribute to-
(a) Photo chemical smog
(b) Acid rain
(c) Global warming
(d) Both (a) and (b)
56. Rearing & mangement of honey bees is called
(a) Agriculture (b) Apiculture
(c) Silviculture (d) Pisciculture
57. The purest form of natural water is
(a) Rain water (b) Ground water
(c) surface water (d) sea water
58. The lowest living level of organisation is
(a) atoms (b) molecules
(c) cells (d) biosphere
59. Within the lungs the exchange of gases takes place in the
(a) branchi (b) branchioles
(c) alveoli (d) Trachea
60. The greatest amount of digestion of food takes place in the
(a) mouth
(b) stomach
(c) egestion sac
(d) small intestine

Space For Rough Work

61. In the human urinary system, which of these, in your opinion, is the most important organ?
 (a) Kidneys (b) ureters
 (c) urinary bladder (d) urethra
62. Which of these is responsible for blood clotting?
 (a) Red blood cells (b) white blood cells
 (c) Haemoglobin (d) platelets
63. Which of the following can be thought of as the body's communication system?
 (a) Endocrine system
 (b) Excretory system
 (c) circulatory system
 (d) Nervous system
64. Which one of the following moves by flagella?
 (a) Amoeba (b) Hydra
 (c) Paramecium (d) Euglena
65. Zygote is related to which method of reproduction
 (a) Asexual (b) sexual
 (c) spore formation (d) vegetative reproduction
66. Hydra reproduces by
 (a) budding
 (b) spore formation
 (c) vegetative reproduction
 (d) sexual reproduction
67. Which nutrient forms most of our body weight?
 (a) Proteins (b) fats
 (c) carbohydrates (d) water
68. Enzymes produced in our body are
 (a) carbohydrates (b) proteins
 (c) vitamins (d) minerals
69. Which mineral is necessary for the formation of haemoglobin?
 (a) Iron (b) calcium
 (c) phosphorous (d) potassium
70. Iodized salt is good for preventing which of the following disease?
 (a) Anaemia (b) Scurvy
 (c) Goitre (d) none of these

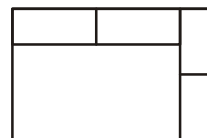
PART-III (REASONING)

71. Find the wrong number in the series :-
 3, 8, 15, 24, 34, 48, 63
 (a) 15 (b) 24
 (c) 34 (d) 48
72. Which term comes next in the series :-
 YEB, WFD, UHG, SKI, ?
 (a) QOL (b) QGL
 (c) TOL (d) QNL
73. Menu : Food :: Catalogue : ?
 (a) Rack (b) Newspapers
 (c) Library (d) Books
74. Melt : Liquid :: Freeze : ?
 (a) Ice (b) condense
 (c) solid (d) crystal
75. Choose the odd one out :-
 (a) 70 - 80 (b) 54 - 62
 (c) 28 - 32 (d) 14 - 16
76. Choose the odd one out :-
 (a) 295
 (b) 381
 (c) 552
 (d) 729

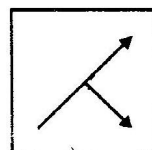
Space For Rough Work

77. If HEALTH is written as GSKZDG, then how will NORTH be written in that code ?
 (a) OPSUI (b) GSQNM
 (c) FRPML (d) IUSPO
78. If 'Oranges are 'apples' bananas are orange and chillies are 'bannas' then which of the following are green in colour?
 (a) Apricots (b) Apples
 (c) chillies (d) bananas
79. In a certain code, RAIN is written as 8 \$ % 6 and MORE is written as 7 # 8 @. How is REMAIN written in that code?
 (a) # @ 7 \$ 9.6
 (b) # @ \$ & \$ % 6
 (c) 7 @ # \$ % 6
 (d) 8 @ 7 \$ % 6
80. If O = 16, FOR = 42 then what is FRONT equal to ?
 (a) 61 (b) 65
 (c) 73 (d) 78
81. A man is facing west. He turns 45° in the clockwise direction and then another 180° in the same direction and then 270° in anticlockwise direction. Which direction is he facing now?
 (a) South (b) North West
 (c) West (d) South West
82. Kunal walks 10 km towards North. From there he walks 6 km towards South. Then he walks 3 km towards East. How far and in which direction is he with reference to his starting point?
 (a) 5 km west (b) 7 km west
 (c) 7 km east
 (d) 5 km North East
83. Pointing towards a person, a man said to a woman, "His mother is the only daughter of your father." How is woman related to that person.

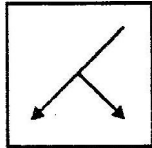
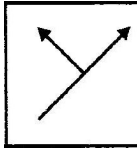
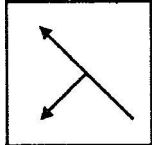
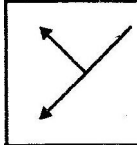
- (a) Daughter (b) Sister
 (c) Mother (d) Wife
84. A and B are brothers. C and D are sisters A's Son is D's brother. How is B related to C?
 (a) Uncle
 (b) Father
 (c) Brother
 (d) None of these
85. Errata : Books :: Flows : ?
 (a) Manuscripts (b) Metals
 (c) Speech (d) Chartres
86. What is the number of rectangles in the following figure?



- (a) 6 (b) 7
 (c) 9 (d) 11
87. Choose the correct mirror-image of the fig.

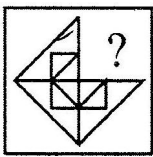


(X)

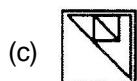
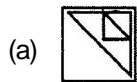
- (a)  (b) 
- (c)  (d) 

Space For Rough Work

88. Complete the pattern in fig. (X) by selecting one of the figures from the four alternatives.



(X)



89. What number is opposite 3, if four different positions of a dice are as shown below?



(i)



(ii)



(iii)



(iv)

(a) 6

(b) 4

(c) 3

(d) 2

90. What was the day on 15 Aug. 1947?

(a) Friday

(b) Saturday

(c) Thursday

(d) None of these



Space For Rough Work