

**AJMAL NATIONAL TALENT SEARCH (ANTS) EXAMINATION - 2011**

**Class : IX**

**Time/സമയം : 2 hours/ 120**

**Full Marks/ പൂർണ്ണ മാർക്ക് (25+25+25+25)=100**

**General Knowledge / ആമിസ പൂജ / ആമിസ പൂജ**

- If American Film Industry is Hollywood, Bombay Film Industry is Bollywood, then Tollywood is the Film industry of -  
 അമേരിക്കൻ സിനിമ വ്യവസായം ഹോളിവുഡ്, ബോംബേ സിനിമ വ്യവസായം ബോളിവുഡ്, അതേപോലെ തോളിവുഡ് ഫിലിം വ്യവസായം ഏത് സംസ്ഥാനത്തിന്റേതാണ്?

a) Tripura                      b) West Bengal                      c) Tamilnadu                      d) New Delhi  
 ത്രിപുര                      പശ്ചിമ ബംഗാൾ                      തമിഴ്നാട്                      ന്യൂ ഡൽഹി
- Which of the following age group is known as adolescent ?  
 താഴെ പറയുന്നവയിൽ ഏതെങ്കിലും ഏതൊരു പ്രായക്കൂട്ടമാണ് അനുജനപ്രായം എന്ന് അറിയപ്പെടുന്നത്?

a) 12 years to 18 years      b) 12 years to 19 years      c) 13 years to 18 years      d) 13 years to 19 years  
 12 വയസ്സിൽ നിന്ന് 18 വയസ്സുവരെ      12 വയസ്സിൽ നിന്ന് 19 വയസ്സുവരെ      13 വയസ്സിൽ നിന്ന് 18 വയസ്സുവരെ      13 വയസ്സിൽ നിന്ന് 19 വയസ്സുവരെ  
 12 [വയസ്സിൽ നിന്ന് 18 വയസ്സുവരെ]      12 [വയസ്സിൽ നിന്ന് 19 വയസ്സുവരെ]      13 [വയസ്സിൽ നിന്ന് 18 വയസ്സുവരെ]      13 [വയസ്സിൽ നിന്ന് 19 വയസ്സുവരെ]
- 'Glaucoma' is a disease of :-  
 ഗ്ലൗകോമ എന്നത് ഏതൊരു രോഗമാണ്?

a) Ear                      b) Eye                      c) Nose                      d) Pancreas  
 കേൾവിക്കുറിവ്                      കണ്ണി                      നീക്കം                      പാൻക്രീസ്
- What is the age bar for IAS entrance ?  
 IAS പ്രവേശനത്തിനുള്ള പ്രായപരിധി എത്രയാണ്?  
 IAS പ്രവേശനത്തിനുള്ള പ്രായപരിധി എത്രയാണ്?

a) 18 yrs                      b) 21 yrs                      c) No age bar                      d) None of these  
 18 വയസ്സ്                      21 വയസ്സ്                      പ്രായപരിധിയില്ല                      മുകളിൽ പറഞ്ഞവയിൽ ഏതെങ്കിലും ഒന്നും
- Who among the following was the first to serve as Vice President as well as President of India ?  
 താഴെ പറയുന്നവരിൽ ആരാണ് ഇന്ത്യയിൽ വൈസ് പ്രസിഡന്റ് ആയി സേവനമനുഷ്ഠിച്ചിട്ടുള്ളതും പ്രസിഡന്റ് ആയി സേവനമനുഷ്ഠിച്ചിട്ടുള്ളതുമായ ആദ്യത്തെ വ്യക്തി?

a) Dr. Zakir Hussain      b) V.V. Giri      c) Neelam Sanjiva Reddy      d) Dr. S. Radhakrishnan  
 ഡോ. ടാക്വർ ഹുസൈൻ      വി.വി. ഗിരി      നീലം സഞ്ജീവ റെഡ്ഡി      ഡോ. എസ്. രാധാകൃഷ്ണൻ

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6. Hiralal Kania was :-

»c c EoXcEoX %oK\_ ?  
»c c EoXcEoKa X ?

- a) The first Chief Election Commissioner of India  
»To YU] ]Ei XjX %d Qp  
»jATyYU] ]Ei XjX Eo` Xdy
- b) The first chief Justice of India  
»To YU] ]Ei Xi d dY  
»jATyYU] ]Ei Xi d dY
- c) The first Speaker of Lok Sabha  
a\_cEo» YU] %Wl u  
a\_cEo» jYU] %Wl u
- d) None of these  
AOc XcF  
AEoC Xl

7. April 22 is observed as :-

22 A»O Eo» Eo» V/a »caY Yc X Eo»cF ?  
22 A»O Eo» Eo» V/a »caY Yc X Eo»cF ?

- a) National Civil Services Day  
»q d` a»c V/a  
]y d` %a] »Eo» [c» V/ ]a
- b) Press Freedom Day  
aeY/ OjKc V/a  
aeY/ OjKc V/a
- c) Earth Day  
W»y V/a  
YBj V/a
- d) World Health Day  
»y W»o V/a  
»y W»o V/a

8. Who among the following Noble Laurate was not present in the Nobel Prize Award Ceremony in 2010 ?

To » EoX LX acaY ]y »LlY 2010 »X » acaY ]y »Y oSYa »To = Y»oXoK\_ ?  
2010 a»lY acaY YD dY »T oS a » X»Y acaY YD dY »LlY %X »oXoK\_ X ?

- a) Robert Edwards (Br) »]y OAOc Oo  
]y OAOc Oo
- b) Marion Vargas Elosa ]c»lX »o»K\_ + a\_cE  
]cYlX »o»K\_ + a\_cE
- c) Liu Xiaobo \_E »Ll dYc  
\_E »Ll dYc
- d) Prof. Peter Diamond %WcY Eo» V/O» O d` ] %o  
%WcY Eo» V/O» jY O d` ] %o

9. The song 'Dil To Baccha Hai Ji' from the film 'Ishqiya' is sung by -

+ »d c» z o ½ "W\_ a c ]y K c i d` LY G d a c E o a K G c »K\_ ?  
+ a E o` c k » j y "W\_ a c ]y K c i d` LY G d » j y G d` E o a K\_ ?

- a) Sankar Mahadevan `eEo» ]c d` V/a  
`e dY] c d` ]s
- b) Rahat Fateh Ali Khan »c»T oZ oT e» %c\_ F d  
]y c»T oZ oT e» %c\_ F d
- c) Shaan `W  
`d
- d) Mohit Chauhan a] c e»T o a b c e  
a] c e»T o a b c e

10. 'Shylock' - a character in a play of Shakespeare is from :-

" E\_ Ed Xc] » »y a c a j Y l a » » E o X F X X d E d o a Y c` ^ d` ?  
a j Y l a » j y a f o b j y " E\_ Ed X l a Y a o X X d E o Y c l` c` ^ d` ?

- a) Hamlet a»] a\_o  
c i c] a\_o
- b) The Merchant of Venice ]c d` o %» a\_o X o  
]c d` o %] y a\_e k a
- c) Romeo Juliet a»c] C L e a\_o  
a] c] C L e a\_o
- d) Twelfth Night O» ¼ Z l X c» O  
O d` \_ Z l X c» O

(3)

11. The maximum number of Scheduled Tribe people, according to 2010 status, is in 2010

- a) Orissa
- b) Madhya Pradesh
- c) Rajasthan
- d) Jharkhand

12. The only person to win both the Nobel Award and The Oscar Award is -

- a) George Bernard Shaw
- b) Rudyard Kipling
- c) Rabindranath Tagore
- d) Satyajit Roy

13. In which of the following denomination of Indian Paper currency the picture of 'Dandi March' is depicted ?

- a) 50 rupees
- b) 100 rupees
- c) 500 rupees
- d) 1000 rupees

14. An object weighs maximum in :

- a) Air
- b) Water
- c) Hydrogen
- d) Vacuum

15. In India the Income Tax is a form of -

- a) Indirect and progressive in nature
- b) Direct and Progressive in nature
- c) Direct but static in nature
- d) Indirect but static in nature











(8)

49. Look at this series: 36, 34, 30, 28, 24, . . . What number should come next?

- a) 20                                      b) 22                                      c) 23                                      d) 26

50. Which word does NOT belong with the others?

- a) excite                                      b) flourish                                      c) prosper                                      d) thrive

General Mathematics / ~~adipS G>STö/ adMlyS G>STö~~

51. Set of natural numbers is a subset of .....

~~Qp>EöaeFiç» aec>Tö..... » =Yaec>Tö~~  
~~Qp>EöaeFiçydyaec>Tö..... [y]=Yaec>Tö~~

- a) Set of even numbers    b) Set of odd numbers    c) Set of composite numbers    d) Set of real numbers  
~~^Ç/aeFiç» aec>Tö~~                                      ~~%^Ç/aeFiç» aec>Tö~~                                      ~~\$i>GEöaeFiç» aec>Tö~~                                      ~~[y]B/aeFiç» aec>Tö~~  
~~^Ç/aeFiçydyaec>Tö~~                                      ~~%^Ç/aeFiçydyaec>Tö~~                                      ~~\$i>GEöaeFiçydyaec>Tö~~                                      ~~[y]B/aeFiçydyaec>Tö~~

52. The Value of  $\frac{a + \sqrt{a^2 - b^2}}{\sqrt{a^2 + b^2} + b} + \frac{\sqrt{a^2 + b^2} - b}{a - \sqrt{a^2 - b^2}}$  » ]ç / A[y]ç

- a)  $\frac{a^2}{b^2}$                                       b)  $\frac{b^2}{a^2}$                                       c)  $\frac{a}{b}$                                       d) None of these  
~~AQç Xç / AEöç Xç~~

53. The sum of additive inverse and multiplicative inverse of 2 is .....

~~2 » ^Ç/aeFiç» aec>Tö.....~~  
~~2 A[y]» aec>Tö.....~~

- a)  $\frac{3}{2}$                                       b)  $-\frac{3}{2}$                                       c)  $\frac{1}{2}$                                       d)  $-\frac{1}{2}$

54. If the factors of  $a^2 + b^2 + 2(ab + bc + ca)$  are  $(a + b + m)$  and  $(a + b + nc)$ , then the value of  $m + n$  is .....

~~^Ç/aeFiç» aec>Tö.....~~  
~~^Ç/aeFiçydyaec>Tö.....~~

- a) 0                                      b) 2                                      c) 4                                      d) 6

55. If  $a + b + c = 0$ , then  $\frac{a^2}{bc} + \frac{b^2}{ca} + \frac{c^2}{ab} = \dots\dots\dots$

~~^Ç/aeFiç» aec>Tö.....~~

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



56. If  $11^7 + 4^7$  is divided by 15 then the remainder is .....

$11^7 + 4^7 \div 15 \Rightarrow \dots$   
 $11^7 + 4^7 \div 15 \Rightarrow \dots$

- a) 0                                      b) 1                                      c) 2                                      d) -2

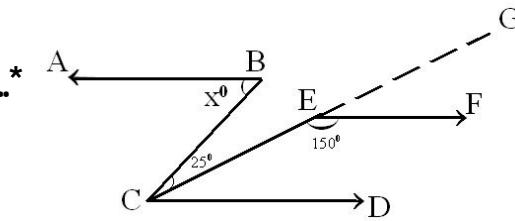
57. An equation of the form  $ax+by+c = 0$ , where a,b are non-zero numbers represents .....

$ax+by+c = 0$  a)  $\dots$   
 $ax+by+c = 0$  a)  $\dots$

- a) a straight line                      b) a circle                              c) a triangle                              d) a quadrilateral

58. In the figure find x if AB || CD

AB || CD  $\Rightarrow x = \dots$   
 AB || CD  $\Rightarrow x = \dots$



- a)  $45^\circ$                                       b)  $55^\circ$   
 c)  $60^\circ$                                       d)  $70^\circ$

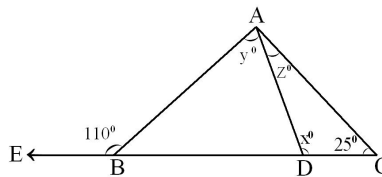
59. Number of angles formed by transversal with a pair of lines .....

$\dots$   
 $\dots$

- a) 6    b) 4    c) 8    d) 3

60. In the figure given below, find  $\angle z$

$\dots$   
 $\dots$



- a)  $40^\circ$                                       b)  $110^\circ$   
 c)  $45^\circ$                                       d) None of these

61. In which of the following quadrilaterals the adjacent sides are not necessarily be equal ?

$\dots$   
 $\dots$

- a) Square                                      b) Parallelogram                              c) Rectangle                                      d) Both 'b' & 'c'



68. When Simple interest is charged, a certain principle amounts to Rs. 7400 in 4 years and Rs. 9200 in 7 years. Then the rate of interest is .....

68. a) 6% b) 8% c) 10% d) 12%

69. The distance of the point (2,0) from the origin is .....

69. a) 1 unit b) 2 units c) 4 units d) None of these

70. Instruments used to draw a pair of parallel lines are .....

70. a) Protractor and scale b) Compass and scale c) Set square and scale d) None of these

71. If  $a^2+b^2+c^2 - ab - bc - ca = 0$  then

71. a)  $a = b = c$  b)  $a \neq b \neq c$  c)  $a = b \neq c$  d) None of these

72.  $(0.04)^{-1.5} =$  .....

72. a) 25 b) 125 c) 250 d) 625

73. Factors form of  $(p^2+q^2-r^2) - 4 p^2q^2$  is .....

73. a)  $(p+q+r) (p+q-r) (p-q+r) (p-q-r)$  b)  $(p-q-r) (p^2-q^2-r^2)$  c)  $(p-q-r) (2p+2q+2r)$  d) None of these

74. What is the single discount equivalent to a series discount of 20%, 10% and 5% ?

74. a) 81% b) 31.4% c) 31.6% d) None of these



80. Which of the following is not matched correctly ?

Tö » ÆÖÅÖÇ » ÆÖÅÖÇ » ÆÖÅÖÇ ?  
XÖÅÖÇ » ÆÖÅÖÇ » ÆÖÅÖÇ » T X ?

- a) Force - Kg m/s  
[y - ÆÖ ÇÖ] / ÅÖ
- b) Pressure - N/m<sup>2</sup>  
[y - X=ÖX/]<sup>2</sup>
- c) Buoyancy - N  
YÅYÇ - X=ÖX
- d) Density - kg/m<sup>3</sup>  
HXÅÖ ÆÖ ÇÖ / Å<sup>3</sup>

81. A person A does 500 J work in 10 minutes and another person B does 600 J of work in 15 minutes. If P<sub>1</sub> and P<sub>2</sub> are the power delivered by A and B respectively, then .....

A + 10 XÖÅÖÇ 500 LÇ EÇ i aYÖX EÖ [yYÇ] %Ö B Å 15 XÖÅÖÇ 600 LÇ EÇ i aYÖX EÖ [yYÇ] ^V A %Ö B » IÜTÇYÖ  
P<sub>1</sub> %Ö P<sub>2</sub> Ç ÆÖÅÖÇ .....  
'A' 10 XÖÅÖÇ 500 LÇ EÇ i aYÖX EÖ [yYÇ] 'B' 15 XÖÅÖÇ 600 LÇ EÇ i aYÖX EÖ [yYÇ] ^V A A [yYÇ] B A [yYÇ] P<sub>1</sub> A [yYÇ] P<sub>2</sub> Ç, TÇY .....\*

- a) P<sub>1</sub> = P<sub>2</sub>
- b) P<sub>1</sub> > P<sub>2</sub>
- c) P<sub>1</sub> < P<sub>2</sub>
- d) None of these  
AÖÇ XÇ / ÅEÖÖÇ X

82. Which of the following are elastic waves ?

Tö » ÆÖÅÖÇ » ÆÖÅÖÇ » ÆÖÅÖÇ ?  
XÖÅÖÇ » ÆÖÅÖÇ » ÆÖÅÖÇ » ÆÖÅÖÇ ?

- a) Light waves  
ÅYÇ » TöÇ  
%Ö ÆÖTÇY
- b) Sound waves  
Ç TöÇ  
Ç TÇY
- c) X - rays  
» tX » ½  
[tX [y ½
- d) Radio waves  
ÅÖÖ% TöÇ  
ÅYÖÇ TÇY

83. Heat needed to melt 1 kg of ice is .....

1 ÆÖ ÇÖ [yZÖÇ\_ ÇY ..... TÇY » YÖ ÇLX\*  
1 ÆÖ ÇÖ [yZÖÇ\_ ÇY ÇLX ..... TÇY [yYÖ ÇLX\*

- a) 40 J
- b) 3.35X10<sup>5</sup> J
- c) 80 J
- d) None of these / AÖÇ XÇ / ÅEÖÖÇ X

84. Select the odd one.

%]\_ ÅÖ [yX:=x C³Ç-  
%]\_ ÅÖ [yÇY EÇY-

- a) Hydrogen  
ÇÖ ÅÖLX
- b) Oxygen  
%j ÅLX
- c) Steam  
[yY
- d) Chlorine  
ZÖÖS / ZÖY\$

85. Calculate the weight of 0.1 mole of sodium carbonate.

0.1 ]'\_ K=ÖÖ Ç EÇ [yXÖ ÇLX XST EÖ Ç\*  
0.1 ]'\_ ÅÖÖÖ Ç EÇ [yXÖY ÇLX XST EÇY\*

- a) 1.06 g (ÇY)
- b) 11.06 g (ÇY)
- c) 10.6 g (ÇY)
- d) 1.106 g (ÇY)



92. Osmosis is a process where ..... crosses the membrane.

.....  
.....

- a) Fats
- b) Proteins
- c) Water
- d) None of these

93. Besides nucleus DNA is also present in .....

DNA .....  
DNA .....

- a) Ribosomes
- b) Mitochondrion
- c) lysosomes
- d) Golgi complex

94. Excretory materials are not found in .....

.....  
.....

- a) Nuclear sap
- b) Cytoplasm
- c) Vacuole
- d) Hyaloplasm

95. Which of the following is a living mechanical tissue ?

.....  
.....

- a) Parenchyma
- b) Collenchyma
- c) Sclerenchyma
- d) All of the above

96. Blood is .....

.....  
.....

- a) Acidic
- b) Alkaline
- c) Neutral
- d) Watery

97. The plant cell without nucleus is .....

.....  
.....

- a) Tracheid
- b) Trachea
- c) Sclereid
- d) Sieve tube



98. Which of the following is a micro nutrient ?

টো » ৳ঐঐঐ%ঐঐঐঐঐঐ ?  
ঐঐঐঐঐঐ%ঐঐঐঐঐঐ ?

- a) Potassium                      b) Zinc                                      c) Calcium                              d) Magnesium

99. The largest store of carbon molecules on earth is in .....

ঐঐঐঐ ..... ঐঐঐ %ঐঐ [ঐঐঐ \ঐঐ\*  
ঐঐ[ঐঐ ..... ঐঐঐ %ঐঐ[ঐঐ] \ঐঐ\*

- a) The atmosphere                      b) Fossil fuels                              c) Marine Sediments                      d) Living Organisms.

100. Water harvesting is .....

ঐঐঐঐঐঐ .....  
L\_ ঐঐঐঐ ঐঐ .....  
a) Collection of river water

ঐঐঐ ঐঐঐঐঐঐঐঐ  
ঐঐ[ঐ\_ ঐঐঐঐঐঐ

b) Collection of rain water in storage tanks as in the soil to recharge ground water

[ঐঐঐ» ঐঐঐঐঐঐঐ] ঐঐঐঐঐ ঐঐঐ ঐঐঐ \ঐঐ ব পানীৰ স্তম্ভ নি. ঐঐঐঐ  
[ঐঐ[ঐ\_ ঐঐঐঐঐ] ঐঐঐঐঐ[ঐ ঐঐ[ঐঐঐঐঐ] ঐঐঐঐঐ

c) Harvesting of water from tube wells.

X\_ ঐঐ» ঐঐঐঐঐঐ ঐঐঐ  
ঐঐ-[ঐ\_ [ঐ\_ ঐঐঐঐ ঐঐঐ

d) All the above.

CY»» %ঐঐ ঐঐঐঐ  
a[ঐঐঐ