

NDA & NA EXAM (I), 2019

जब तक आपको यह परीक्षण पुस्तिका खोलने को न कहा जाए तब तक न खोलें

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परीक्षण पुस्तिका अनुक्रम

Serial No.

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परीक्षण पुस्तिका
सामान्य योग्यता परीक्षण

A

समय : दो घण्टे और तीस मिनट

पूर्णांक : 600

अनुदेश

1. परीक्षा प्रारम्भ होने के तुरन्त बाद, आप इस परीक्षण पुस्तिका की पड़ताल अवश्य कर लें कि इसमें कोई बिना छपा, फटा या छूटा हुआ पृष्ठ अथवा प्रश्नांश आदि न हों। यदि ऐसा है, तो इसे सही परीक्षण पुस्तिका से बदल लें।
2. कृपया ध्यान रखें कि OMR उत्तर-पत्रक में, उचित स्थान पर, रोल नम्बर और परीक्षण पुस्तिका अनुक्रम A, B, C या D को, ध्यान से एवं बिना किसी चूक या विसंगति के भरने और कूटबद्ध करने की जिम्मेदारी उम्मीदवार की है। किसी भी प्रकार की चूक/विसंगति की स्थिति में उत्तर-पत्रक निरस्त कर दिया जाएगा।
3. इस परीक्षण पुस्तिका पर साथ में दिए गए कोष्ठक में आपको अपना अनुक्रमांक लिखना है। परीक्षण पुस्तिका पर और कुछ न लिखें।
4. इस परीक्षण पुस्तिका में 150 प्रश्नांश (प्रश्न) दो भागों में दिए गए हैं : भाग - A और भाग - B। भाग - B में प्रत्येक प्रश्नांश हिन्दी और अंग्रेजी दोनों में छपा है। प्रत्येक प्रश्नांश में चार प्रत्युत्तर (उत्तर) दिए गए हैं। इनमें से एक प्रत्युत्तर को चुन लें, जिसे आप उत्तर-पत्रक पर अंकित करना चाहते हैं। यदि आपको ऐसा लगे कि एक से अधिक प्रत्युत्तर सही हैं, तो उस प्रत्युत्तर को अंकित करें जो आपको सर्वोत्तम लगे। प्रत्येक प्रश्नांश के लिए केवल एक ही प्रत्युत्तर चुनना है।
5. आपको अपने सभी प्रत्युत्तर अलग से दिए गए उत्तर-पत्रक पर ही अंकित करने हैं। उत्तर-पत्रक में दिए गए निर्देश देखें।
6. सभी प्रश्नांशों के अंक समान हैं।
7. इससे पहले कि आप परीक्षण पुस्तिका के विभिन्न प्रश्नांशों के प्रत्युत्तर उत्तर-पत्रक पर अंकित करना शुरू करें, आपको प्रवेश प्रमाण-पत्र के साथ प्रेषित अनुदेशों के अनुसार कुछ विवरण उत्तर-पत्रक में देने हैं।
8. आप अपने सभी प्रत्युत्तरों को उत्तर-पत्रक में भरने के बाद तथा परीक्षा के समापन पर केवल उत्तर-पत्रक अधीक्षक को सौंप दें। आपको अपने साथ परीक्षण पुस्तिका ले जाने की अनुमति है।
9. कच्चे काम के लिए पत्रक परीक्षण पुस्तिका के अन्त में संलग्न हैं।
10. गलत उत्तरों के लिए दण्ड :
वस्तुनिष्ठ प्रश्न-पत्रों में उम्मीदवार द्वारा दिए गए गलत उत्तरों के लिए दण्ड दिया जाएगा।
 - (i) प्रत्येक प्रश्न के लिए चार वैकल्पिक उत्तर हैं। उम्मीदवार द्वारा प्रत्येक प्रश्न के लिए दिए गए एक गलत उत्तर के लिए प्रश्न हेतु नियत किए गए अंकों का एक-तिहाई दण्ड के रूप में काटा जाएगा।
 - (ii) यदि कोई उम्मीदवार एक से अधिक उत्तर देता है, तो इसे गलत उत्तर माना जाएगा, यद्यपि दिए गए उत्तरों में से एक उत्तर सही होता है, फिर भी उस प्रश्न के लिए उपर्युक्तानुसार ही उसी तरह का दण्ड दिया जाएगा।
 - (iii) यदि उम्मीदवार द्वारा कोई प्रश्न हल नहीं किया जाता है अर्थात् उम्मीदवार द्वारा उत्तर नहीं दिया जाता है, तो उस प्रश्न के लिए कोई दण्ड नहीं दिया जाएगा।

जब तक आपको यह परीक्षण पुस्तिका खोलने को न कहा जाए तब तक न खोलें

Note : English version of the instructions is printed on the back cover of this Booklet.

PART – A

SPOTTING ERRORS

Directions : Each item in this section has a sentence with three underlined parts labelled (a), (b) and (c). Read each sentence to find out whether there is any error in any underlined part and indicate your response in the Answer Sheet against the corresponding letter i.e., (a) or (b) or (c). If you find no error, your response should be indicated as (d).

1. Opening his letters, reading them carefully and sending for his clerk,
(a) (b)
he dictated answers with them. No error.
(c) (d)
2. He was my school-friend, but becoming a great man,
(a) (b)
he has grown proud enough to forget his old friends. No error.
(c) (d)
3. Rabindranath Tagore, a Nobel laureate and the author of the national anthem,
(a) (b)
found Shantiniketan. No error.
(c) (d)
4. The art of printing was introduced into England during the reign of Edward IV
(a) (b)
by William Caxton, a native of Kent. No error.
(c) (d)
5. From thirty years he devoted himself to public affairs without taking a holiday.
(a) (b) (c)
No error.
(d)
6. If Ramesh will be promoted he will get a higher salary. No error.
(a) (b) (c) (d)
7. My brother goes to the office five day week. No error.
(a) (b) (c) (d)

8. If you lend Mohan a pen he will lend it to someone else
 (a) (b)
and never you will get it back. No error.
 (c) (d)
9. One of most widely spread bad habits is the use of tobacco. No error.
 (a) (b) (c) (d)
10. A great part of Arabia is desert. No error.
 (a) (b) (c) (d)

SYNONYMS

Directions : Each item in this section consists of a sentence with an underlined word followed by four words or group of words. Select the option that is **nearest in meaning** to the underlined word/words and mark your response in your Answer Sheet accordingly.

11. Some people complain when they encounter a small misfortune in the course of their thoroughly happy life.
 (a) run into
 (b) run away
 (c) run down
 (d) run with
12. This world is full of miseries.
 (a) indifferent love
 (b) perfect happiness
 (c) great suffering
 (d) moderate sympathies
13. A glance at a beautiful object gives us delight.
 (a) wisdom
 (b) happiness
 (c) purity
 (d) peace
14. It is terrible for people to die of starvation.
 (a) starch
 (b) staple
 (c) plenty
 (d) hunger
15. The university has constituted a grievance redressal committee to look into the matter.
 (a) depression
 (b) complaint
 (c) abrasion
 (d) gratefulness
16. Rakesh delivered a slandorous speech.
 (a) abusive
 (b) praiseworthy
 (c) moderate
 (d) inspiring

17. Suddenly, the sky was darkened by a gigantic bird.

- (a) winged
- (b) small
- (c) tiny
- (d) enormous

18. To abolish poverty would be to destroy the soil upon which mankind produces the virtues conducive to higher civilization

- (a) detest
- (b) eradicate
- (c) nurture
- (d) assimilate

19. The Arabs who are not in the cities live in the desert throughout the year, shifting from one oasis to another.

- (a) sandbank
- (b) mound
- (c) dune
- (d) spring

20. The various facets of life can be found reflected in a large city.

- (a) several
- (b) similar
- (c) valuable
- (d) singular

ANTONYMS

Directions : Each item in this section consists of a sentence with an underlined word followed by four words. Select the option that is **opposite in meaning** to the underlined word/words and mark your response in your Answer Sheet accordingly.

21. Ramesh is a very dubious character.

- (a) shady
- (b) suspicious
- (c) trustworthy
- (d) doubtful

24. He was born on a very auspicious day.

- (a) propitious
- (b) fortunate
- (c) ominous
- (d) opportune

22. Do not indulge in unmindful activities, please.

- (a) vigilant
- (b) careless
- (c) stupid
- (d) fatuous

25. He has deeper hostility towards Mohan.

- (a) animosity
- (b) belligerence
- (c) malice
- (d) friendship

23. He is suffering from a curable disease.

- (a) remediable
- (b) treatable
- (c) terminal
- (d) operable

26. His life is rather monotonous.

- (a) exciting
- (b) dreary
- (c) tedious
- (d) uneventful

27. Macbeth is a morally repulsive character.

- (a) abominable
- (b) attractive
- (c) obnoxious
- (d) ugly

28. The serene beauty of Kashmir had a soothing effect on his mind.

- (a) placid
- (b) pleasing
- (c) tranquil
- (d) turbulent

29. Life is transient in nature.

- (a) brief
- (b) momentary
- (c) eternal
- (d) short-lived

30. Sohan is a vain person.

- (a) modest
- (b) arrogant
- (c) conceited
- (d) proud

IDIOMS AND PHRASES

Directions : Given below are some idioms/phrases followed by four alternative meanings to each. Choose the response (a), (b), (c) or (d) which is the most appropriate expression.

31. A dark horse

- (a) a black coloured horse
- (b) a person who wins a race or competition although no one expected him to
- (c) a person who keeps secrets
- (d) an ignorant person

32. A show-stopper

- (a) someone who stops the show
- (b) someone who organizes the show
- (c) a performance that is extremely good
- (d) a fashionable person

33. A jack of all trades

- (a) someone who has many skills
- (b) a confident and not very serious young man

(c) someone who has hit the jackpot

(d) a great businessman

34. Fight tooth and nail

- (a) to quarrel with someone
- (b) to attack someone with a lot of force
- (c) to try hard to prevent something from happening
- (d) to try very hard to achieve something

35. Fair and square

- (a) in an honest way
- (b) in a critical way
- (c) neither very good nor very bad
- (d) in a foolish way

ORDERING OF SENTENCES

Directions : In this section each item consists of six sentences of a passage. The first and sixth sentences are given in the beginning as S1 and S6. The middle four sentences in each have been jumbled up and labelled P, Q, R and S. You are required to find the proper sequence of the four sentences and mark your response accordingly on the Answer Sheet.

36. S1: We do not know what to do with our knowledge.

S6: In the course of time they may rule over us altogether.

P : For example, we are unable to manage our machines.

Q : We already find it difficult to do without machines.

R : Machines should be fed properly and waited upon attentively; otherwise they refuse to work or cause destruction.

S : Science has given us superhuman powers, which we do not use properly.

The proper sequence should be

(a) S P R Q

(b) P S Q R

(c) Q R P S

(d) S R P Q

37. S1: The British rule in India has brought about moral, material, cultural and spiritual ruination of this great country.

S6: We are not to kill anybody but it is our *dharma* to see that the curse of this Government is blotted out.

P : I regard this rule as a curse.

Q : Sedition has become my religion.

R : Ours is a non-violent battle.

S : I am out to destroy this system of Government.

The proper sequence should be

(a) S P R Q

(b) P S Q R

(c) Q R P S

(d) S R P Q

ORDERING OF WORDS IN A SENTENCE

Directions : Each of the following items in this section consists of a sentence, the parts of which have been jumbled. These parts have been labelled P, Q, R and S. Given below each sentence are four sequences namely (a), (b), (c) and (d). You are required to rearrange the jumbled parts of the sentence and mark your response accordingly.

38. the urban local body elections unidentified gunmen and injured another during
 P Q R

 shot dead two workers
 S

- (a) Q S R P
(b) P Q S R
(c) S P R Q
(d) R P S Q

39. both intense political and this state has a history of
P Q
of syncretic accomplishments religious contestation and
R S

- (a) S Q P R
(b) P Q S R
(c) S Q R P
(d) Q P S R

40. the father also in his quest for justice by the system feels let down
P Q R S

- (a) S Q P R
(b) P S R Q
(c) S Q R P
(d) P Q R S

COMPREHENSION

Directions : In this section you have a passage. After the passage, you will find some items based on the passage. First, read the passage and answer the items based on it. You are required to select your answers based on the contents of the passage and opinion of the author only.

Passage

I do not wish to suggest that because we were one nation we had no differences, but it is submitted that our leading men travelled throughout India either on foot or in bullock-carts. They learned one another's languages and there was no aloofness amongst them. What do you think could have been the intention of those farseeing ancestors of ours who established Setubandha (Rameshwar) in the South, Jagannath in the East and Hardwar in the North as places of pilgrimage? You will admit they were no fools. They knew that worship of God could have been performed just as well at home. They taught us that those whose hearts were aglow with righteousness had the Ganges in their own homes. But they saw that India was one undivided land so made by nature. They, therefore, argued that it must be one nation. Arguing thus, they established holy places in various parts of India, and fired the people with an idea of nationality in a manner unknown in other parts of the world. And we Indians are one as no two Englishmen are. Only you and I and others who consider ourselves civilized and superior persons imagine that we are many nations. It was after the advent of railways that we began to believe in distinctions, and you are at liberty now to say that it is through the railways that we are beginning to abolish those distinctions. An opium-eater may argue the advantage of opium-eating from the fact that he began to understand the evil of the opium habit after having eaten it. I would ask you to consider well what I had said on the railways.

41. According to the author, India
- (a) has never been one nation
 - (b) has been an aggregate of several nations
 - (c) has always been one nation along with differences
 - (d) became a nation after the British came
42. Why did the great sages of India establish pilgrimages in the different corners of the country?
- (a) Because they wanted to push people to travel to different places
 - (b) Because they could observe the underlying unity of the country as made by nature
 - (c) Because they themselves had travelled to these places
 - (d) Because they wanted people to be religious everywhere

43. In the passage, the author's attitude towards the railways is
- (a) critical
 - (b) sympathetic
 - (c) indifferent
 - (d) apathetic
44. What does the author mean when he says that "whose hearts were aglow with righteousness had the Ganges in their own homes" ?
- (a) One need not visit the Ganges to take holy bath
 - (b) The Ganges has been polluted, so one should bath at home
 - (c) One should take a holy dip in the Ganges to purify one's heart
 - (d) The purity of heart is superior to observance of any ritual
45. The paragraph is written in a
- (a) dialogic style
 - (b) prescriptive style
 - (c) descriptive style
 - (d) analytical style

FILL IN THE BLANK

Directions : Each of the following sentences in this section has a blank space and four words or group of words given after the sentence. Select the word or group of words you consider most appropriate for the blank space and indicate your response on the Answer Sheet accordingly.

46. _____ forests prevent erosion.
- (a) Lean
 - (b) Dense
 - (c) Sparse
 - (d) Tidy
47. Three people were arrested and an illegal arms unit was _____ by the police in a raid.
- (a) revealed
 - (b) searched
 - (c) discovered
 - (d) busted
48. A woman got into the car and _____.
- (a) drove off
 - (b) broke down
 - (c) rode in
 - (d) drove in
49. The lecture was not very interesting. In fact I _____ in the middle of it.
- (a) showed off
 - (b) put off
 - (c) dozed off
 - (d) plugged off
50. The cops _____ murder by kin.
- (a) suspect
 - (b) afford
 - (c) manage
 - (d) administer

PART – B

51. Which one of the following cell organelles does NOT possess nucleic acid ?
- (a) Nucleolus
 - (b) Chloroplast
 - (c) Ribosome
 - (d) Plasma Membrane
52. Which one of the following cell organelles does NOT possess its own genetic material encoding proteins ?
- (a) Ribosome
 - (b) Nucleus
 - (c) Mitochondria
 - (d) Chloroplast
53. Which one of the following is NOT a component of conducting tissue in plants ?
- (a) Fibres
 - (b) Tracheids
 - (c) Pericycle
 - (d) Sieve tubes
54. Which one of the following organisms has vascular tissues ?
- (a) *Cladophora*
 - (b) *Penicillium*
 - (c) *Marsilea*
 - (d) *Anabaena*
55. Which one of the following organisms represents the primary consumer category in an ecosystem ?
- (a) Caterpillar
 - (b) Crabapple tree
 - (c) Frog
 - (d) Sparrowhawk
56. Spring tides refer to
- (a) greatest difference in the sea level at high and low tides
 - (b) lowest difference in the sea level at high and low tides
 - (c) no difference in the sea level at high and low tides
 - (d) counteraction of gravitational pull of the Sun to that of Moon
57. Which one of the following energy is stored in the links between the atoms ?
- (a) Nuclear energy
 - (b) Chemical energy
 - (c) Potential energy
 - (d) Thermal energy
58. The light energy escaping from the Sun can be spread by
- (a) a shower of rain drops
 - (b) a plane mirror
 - (c) a convex lens
 - (d) a combination of a convex lens and a concave lens

59. The correct sequence of energy transfer that occurs when an apple falls to the ground is

- (a) Gravitational potential energy → heat energy to air → kinetic energy → heat energy to ground and apple → sound energy
- (b) Gravitational potential energy → sound energy → kinetic energy → heat energy to air → heat energy to ground and apple
- (c) Gravitational potential energy → kinetic energy → heat energy to air → heat energy to ground and apple → sound energy
- (d) Gravitational potential energy → kinetic energy → sound energy → heat energy to air → heat energy to ground and apple

60. Which one of the following minerals is used as a fuel in nuclear power stations?

- (a) Bauxite
- (b) Quartz
- (c) Feldspar
- (d) Pitchblende

61. Which one of the following is NOT a synthetic detergent?

- (a) $\text{CH}_3(\text{CH}_2)_{10}\text{CH}_2\text{O SO}_3^- \text{Na}^+$
- (b) $[\text{CH}_3(\text{CH}_2)_{15}-\text{N}-(\text{CH}_3)_3]^+ \text{Br}^-$
- (c) $\text{CH}_3(\text{CH}_2)_{16}\text{COO}^- \text{Na}^+$
- (d) $\text{CH}_3(\text{CH}_2)_{16}\text{COO}(\text{CH}_2\text{CH}_2\text{O})_n \text{CH}_2\text{CH}_2\text{OH}$

62. Which one of the following is an example of a clean fuel?

- (a) Coke
- (b) Propane
- (c) Petrol
- (d) Wax

63. Which one of the following metals does NOT react with cold water?

- (a) Calcium (Ca)
- (b) Potassium (K)
- (c) Magnesium (Mg)
- (d) Sodium (Na)

64. In which of the following pairs are the ions isoelectronic?

- (a) Mg^{2+} , Ar
- (b) Na^+ , O^{2-}
- (c) Al^{3+} , Cl^-
- (d) K^+ , Ne

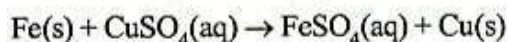
65. Which one of the following is used as a binder in paints?

- (a) Titanium dioxide
- (b) Novolac
- (c) Phthalocyanine
- (d) Silicones

66. Which one of the following is NOT true in reference to Air mass ?
- (a) Air mass forms either in tropical or in polar region
 - (b) Air mass develops on continents as well as over ocean
 - (c) Air mass develops in a cyclonic condition
 - (d) Air mass changes the weather conditions
67. National Water Academy, a centre of excellence in training and capacity building in water resource, is located at
- (a) New Delhi
 - (b) Kolkata
 - (c) Pune
 - (d) Chennai
68. "Campos" and "Llanos", Tropical Savanna grasslands are generally found in
- (a) Australia
 - (b) Central Africa
 - (c) South America
 - (d) East Asia
69. "Viticulture" is a common feature of which one of the following Australian cities ?
- (a) Adelaide
 - (b) Darwin
 - (c) Hobart
 - (d) Brisbane
70. "Shamal" warm and dry wind is a "Local" wind found in
- (a) East Asia
 - (b) West Coast of Africa
 - (c) Sahara of Africa
 - (d) Mesopotamia
71. "Inversion of Rainfall" is associated with
- (a) Orographic rainfall
 - (b) Convectional rainfall
 - (c) Cyclonic rainfall (Tropical)
 - (d) Cyclonic rainfall (Temperate)
72. Who was the author of the book 'History of British India' ?
- (a) Charles Grant
 - (b) John Stuart Mill
 - (c) James Mill
 - (d) William Jones
73. The Azamgarh Proclamation of August 25, 1857 stressed on which one of the following issues ?
- (a) Hindu-Muslim divide
 - (b) Support to the English Government
 - (c) The return of the Badshahi
 - (d) The imposition of heavy Jumas (revenue demand)

74. Which Viceroy had made the observation, "It's a beautiful world if it wasn't for Gandhi" ?
- Lord Irwin
 - Lord Wavell
 - Lord Mountbatten
 - Lord Willingdon
75. Which Indian businessman favoured 'healthy capitalism' in helping Gandhiji to work towards a 'common object' ?
- Ghanshyam Das Birla
 - Ambalal Sarabhai
 - Sir Biren Mookerjee
 - T. T. K. Krishnamachari
76. The art piece "In Memoriam" was a creation of which one of the following European painters ?
- Thomas Jones Barker
 - Joseph Noel Paton
 - Thomas Daniell
 - Charles D'Oyly
77. Which one of the following can charge an insulator ?
- Current electricity
 - Static electricity
 - Magnetic field
 - Gravitational field
78. At 20°C, the speed of sound in water is approximately
- 330 m/s
 - 800 m/s
 - 1500 m/s
 - 5000 m/s
79. Which one of the following could be the melting point of iron ?
- 25°C
 - 37°C
 - 500°C
 - 1500°C
80. Let us consider a copper wire having radius r and length l . Let its resistance be R . If the radius of another copper wire is $2r$ and the length is $l/2$ then the resistance of this wire will be
- R
 - $2R$
 - $R/4$
 - $R/8$
81. Basic scientific principle behind a nuclear reactor is
- Nuclear fusion
 - Controlled nuclear fusion
 - Uncontrolled nuclear fission
 - Controlled nuclear fission

82. Which one of the following statements is NOT correct for the given reaction ?



- (a) Iron is the reducing agent
- (b) The solution turns green in colour after the reaction
- (c) Copper is a more reactive metal than iron
- (d) The reaction is an example of a redox reaction

83. Which one of the following is an organic acid ?

- (a) Hydrochloric acid
- (b) Nitric acid
- (c) Acetic acid
- (d) Sulphuric acid

84. Dinitrogen (N_2) and dioxygen (O_2) are the main constituents of air but they do not react with each other to form oxides of nitrogen because

- (a) the reaction requires initiation by a catalyst
- (b) oxides of nitrogen are unstable
- (c) the reaction is endothermic and requires very high temperature
- (d) the stoichiometry of N_2 and O_2 in air is not ideal for the reaction to take place

85. Who among the following has explained the phenomenon of photo-electric effect ?

- (a) Max Planck
- (b) Albert Einstein
- (c) Neils Bohr
- (d) Ernest Rutherford

86. The equivalent weight of oxalic acid in $\text{C}_2\text{H}_2\text{O}_4 \cdot 2\text{H}_2\text{O}$ is

- (a) 45
- (b) 63
- (c) 90
- (d) 126

87. Which one of the following is NOT a west flowing river ?

- (a) Periyar
- (b) Bharatpuzha
- (c) Pamba
- (d) Tamraparni

88. Which one of the following rivers was earlier known as "Vitasta" ?

- (a) Tista
- (b) Jhelum
- (c) Tungabhadra
- (d) Bharatpuzha

89. River Sarda drains in the Northern Plains of Uttar Pradesh. Before entering in the Plains, Sarda is known as

- (a) Saraswati
- (b) Bhagirathi
- (c) Kali
- (d) Pindar

90. "Mission Indradhanush" is related to

- (a) Bullet train project
- (b) Agriculture development
- (c) Women empowerment
- (d) Full immunization

91. Which of the following is/are environmental effects of Rotation of the Earth ?

1. Daily or diurnal rhythm in daylight and air temperature
2. Flow path of both air and water are turned consistently in a side-ward direction
3. The movement of the tides

Select the correct answer using the code given below :

- (a) 1 and 2 only
- (b) 1 and 3 only
- (c) 1, 2 and 3
- (d) 3 only

92. Who among the following historians have described the Quit India movement as a 'spontaneous revolution' ?

- (a) Gordon Johnson
- (b) David Arnold
- (c) F G Hutchins
- (d) Peter Robb

The following 3 (three) items consist of two statements, Statement I and Statement II. Examine these two statements carefully and select the correct answer using the code given below :

Code :

- (a) Both the statements are individually true and Statement II is the correct explanation of Statement I
- (b) Both the statements are individually true and Statement II is NOT the correct explanation of Statement I
- (c) Statement I is true but Statement II is false
- (d) Statement I is false but Statement II is true

93. Statement I : Abul Fazl shaped, represented and articulated the ideas associated with the reign of Akbar

Statement II : The qualities of Abul Fazl impressed Akbar who found the former suitable as an adviser and spokesperson for his policies

94. Statement I : The Kisan manifesto adopted by the All India Kisan Sabha in August 1936 contained radical demands

Statement II : The All India Kisan Sabha was a part of the Congress and maintained close relationship with the Provincial Congress Committees

95. Statement I : The British ruled India through a modern bureaucracy headed by the Indian Civil Service, whose members were recruited through merit based on open competition

Statement II : The Indian Civil Service was based on the whole hearted participation of Indians

96. Two metallic wires A and B are made using copper. The radius of wire A is r while its length is l . A dc voltage V is applied across the wire A , causing power dissipation, P . The radius of wire B is $2r$ and its length is $2l$ and the same dc voltage V is applied across it causing power dissipation P_1 . Which one of the following is the correct relationship between P and P_1 ?

- (a) $P = 2P_1$
- (b) $P = P_1/2$
- (c) $P = 4P_1$
- (d) $P = P_1$

97. Consider the following statements about a solenoid :

- 1. The magnetic field strength in a solenoid depends upon the number of turns per unit length in the solenoid
- 2. The magnetic field strength in a solenoid depends upon the current flowing in the wire of the solenoid
- 3. The magnetic field strength in a solenoid depends upon the diameter of the solenoid

Which of the statements given above are correct ?

- (a) 1, 2 and 3
- (b) 1 and 3 only
- (c) 2 and 3 only
- (d) 1 and 2 only

98. Light year is a unit of measurement of

- (a) very large distances
- (b) time interval in years
- (c) amount of light received on earth in a year
- (d) mass of atoms

99. The focal length of the objective lens of a telescope is 50 cm. If the magnification of the telescope is 25, then the focal length of the eye-piece is

- (a) 12.5 cm
- (b) 5 cm
- (c) 2 cm
- (d) 10 cm

100. Which one of the following forces is non-central and non-conservative ?

- (a) Frictional force
- (b) Electric force
- (c) Gravitational force
- (d) Mechanical force

101. On exposure to moist air, copper gains a green coat on its surface due to formation of which one of the following compounds ?

- (a) Copper carbonate
- (b) Copper oxide
- (c) Copper sulphate
- (d) Copper nitrate

102. Which one of the following will NOT produce carbon dioxide on reacting with an aqueous solution of hydrochloric acid ?

- (a) Limestone
- (b) Quick Lime
- (c) Chalk
- (d) Marble

103. Which one of the following substances is NOT a mixture ?

- (a) Ice
- (b) Ice-cream
- (c) Air
- (d) Honey

104. Which one of the following is an example of Salt-Crystal growth ?

- (a) Chemical weathering
- (b) Physical weathering
- (c) Biological weathering
- (d) Bio-chemical weathering

105. Which one of the following is the correct sequence of proved coal reserves in the Indian States in decreasing order ?

- (a) Jharkhand, Chhattisgarh, Odisha, West Bengal
- (b) Jharkhand, Odisha, Chhattisgarh, West Bengal
- (c) Odisha, West Bengal, Jharkhand, Chhattisgarh
- (d) Odisha, Chhattisgarh, West Bengal, Jharkhand

106. Consider the following statements relating to Richter scale :

1. It was devised in 1935 by Charles F. Richter
2. It describes the quantity of energy released by a single earthquake
3. Richter Scale has no upper limit

Which of the statements given above is/are correct ?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

107. Which one of the following ocean currents is NOT a cold ocean current ?

- (a) Canary current
- (b) California current
- (c) Kuroshio current
- (d) Oyashio current

108. What is the time gap in occurrence of two successive tides at a given place on the ocean surface ?

- (a) 12 hours
- (b) 12 hours 26 minutes
- (c) 24 hours
- (d) 24 hours 52 minutes

109. Tooth enamel is made up of which one of the following calcium compounds ?

- (a) Calcium carbonate
- (b) Calcium sulphate
- (c) Calcium hydroxide
- (d) Calcium phosphate

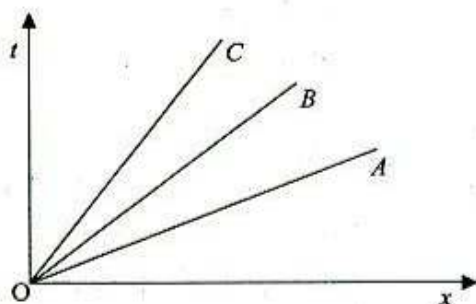
110. Suppose there are two planets, 1 and 2, having the same density but their radii are R_1 and R_2 respectively, where $R_1 > R_2$. The accelerations due to gravity on the surface of these planets are related as

- (a) $g_1 > g_2$
- (b) $g_1 < g_2$
- (c) $g_1 = g_2$
- (d) Can't say anything

111. The Sun is seen little before it rises and for a short while after it sets. This is because of

- (a) total internal reflection
- (b) atmospheric refraction
- (c) apparent shift in the direction of Sun
- (d) dispersion

112.



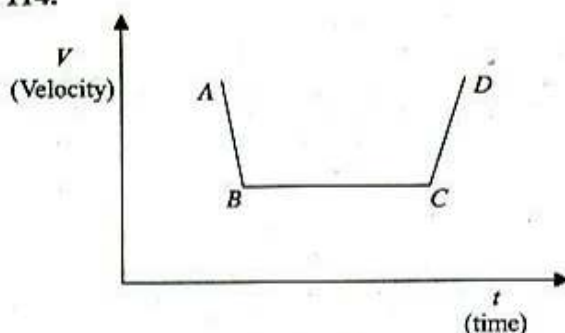
The figure shown above gives the time (t) versus position (x) graphs of three objects A , B and C . Which one of the following is the correct relation between their speeds V_A , V_B and V_C , respectively at any instant ($t > 0$) ?

- (a) $V_A < V_B < V_C$
- (b) $V_A > V_B > V_C$
- (c) $V_A = V_B = V_C \neq 0$
- (d) $V_A = V_B = V_C = 0$

113. 1 dyne (a unit of force in CGS system) equals to

- (a) 10^3 g cm/s^2
- (b) 10^{-3} g cm/s^2
- (c) 10^5 kg m/s^2
- (d) 10^{-5} kg m/s^2

114.



In the given velocity (V) versus time (t) graph, accelerated and decelerated motions are respectively represented by line segments

- (a) CD and BC
- (b) BC and AB
- (c) CD and AB
- (d) AB and CD

115. Which one of the following statements regarding a thermos flask is NOT correct ?

- (a) The walls of flask are separated by vacuum and made of glass which is a poor conductor of heat
- (b) The glass walls themselves have shiny surfaces
- (c) The surface of inner wall radiates good amount of heat and the surface of outer wall absorbs some of the heat that is radiated from the inner wall
- (d) The cork supports are poor conductors of heat

116. 'Black hole' is a

- (a) huge black star which has zero acceleration due to gravity on its surface
- (b) star which has moderate acceleration due to gravity on its surface
- (c) star which has collapsed into itself and has large acceleration due to gravity on its surface
- (d) star which has collapsed into itself and has zero acceleration due to gravity on its surface

117. The formula for conversion between Fahrenheit and Celsius is

$$^{\circ}\text{F} = \text{X} + (1.8 \times ^{\circ}\text{C})$$

What is factor X ?

- (a) 32
- (b) 22
- (c) 98
- (d) 42

118. When a beam of white light passes through a glass prism, the colour of light beam that deviates the least is

- (a) Blue
- (b) Red
- (c) Green
- (d) Violet

119. LIGO stands for

- (a) Laser Interferometer Gravitational wave Observatory
- (b) Light Interferometer Gravitational wave Observatory
- (c) Light Induced Gravity Observatory
- (d) Laser Induced Gaseous Optics

120. A fuse wire must be

- (a) conducting and of low melting point
- (b) conducting and of high melting point
- (c) insulator and of high melting point
- (d) insulator and of low melting point

121. Kamarajar Port was commissioned in 2001 to handle thermal coal requirements. It is situated along the coast of which Indian State ?

- (a) Andhra Pradesh
- (b) Odisha
- (c) Tamil Nadu
- (d) Karnataka

122. Which one of the following Union Territories of India is the smallest in terms of geographical area ?

- (a) Daman and Diu
- (b) Chandigarh
- (c) Dadra and Nagar Haveli
- (d) Lakshadweep

123. Which one of the following can be said to be essentially related to 'Polar Front Theory' ?

- (a) Anticyclone
- (b) Tropical Cyclone
- (c) Temperate Cyclone
- (d) Inter Tropical Convergence

124. Brahmaputra and Indus rivers are antecedent rivers. Which one of the following may be the true definition of an antecedent drainage ?

- (a) Which follows the initial slope of the Himalaya
- (b) Which existed before the Himalayan range came into existence
- (c) Which followed the dip or rock beds of the Himalaya
- (d) Which followed the strikes of rock beds of the Himalaya

125. The Karachi resolution of Congress in 1931 advocated which one of the following issues ?

- (a) State shall not own or control key industries and services
- (b) State shall handover the key industries and services to the Indian business groups
- (c) State should allow the Indian business group to invest fifty per cent of the capital
- (d) State shall own or control key industries and services

126. The treaty of Schonbrunn (1809) was signed after which one of the following battles ?

- (a) Battle of Austerlitz
- (b) Battle of Tilsit
- (c) Battle of Wagram
- (d) Battle of Lisbon

127. Which of the following statements about The New Model Unions is/are correct ?

- 1. The New Model Unions were formed in the 1850s
- 2. The New Model Unions were formed in the 1880s
- 3. The New Model Unions comprised a Labour Party idea
- 4. The New Model Unions excluded women in the 1920s

Select the correct answer using the code given below :

- (a) 1
- (b) 2
- (c) 3 and 4
- (d) 3 only

128. The Truman Doctrine of 1947 was announced to achieve which one of the following ?

- (a) Containment of the USSR
- (b) Increasing agricultural production in the USA
- (c) Offering friendship to Europe
- (d) Strengthening the UNO

129. Which of the following statements is/are correct ?

1. In 1948, Burma was admitted to the United Nations and immediately supported the USA in the Cold War
2. In 1948, Burma joined the United Nations but refused to denounce China as the aggressor in the Korean War

Select the correct answer using the code given below :

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

130. Who among the following presented 'The April Theses' to the Russian people in 1917 ?

- (a) Stalin
- (b) Trotsky
- (c) Bukharin
- (d) Lenin

131. An Election Commissioner can be removed from office on the recommendation of

- (a) The Chief Justice of India
- (b) The Chief Election Commissioner
- (c) The President of India
- (d) The Parliament

132. Which one of the following statements regarding the Rajya Sabha is NOT correct ?

- (a) Its members are elected by the elected members of the Legislative Assembly of a State
- (b) The election follows the system of proportional representation by means of a single transferable vote
- (c) 1/3rd of its members retire after every two years
- (d) It is a permanent body, but can be dissolved earlier by the President

133. Fundamental right guaranteed under which one of the following Articles of the Constitution of India is available only to the citizens of India ?

- (a) Article 19
- (b) Article 20
- (c) Article 21
- (d) Article 22

134. The treaty of Yandabo was signed in

- (a) 1826
- (b) 1825
- (c) 1824
- (d) 1823

135. In the Manusmriti which form of marriage results from the "Voluntary union of a maiden and her lover" ?

- (a) Eighth form
- (b) Fifth form
- (c) Seventh form
- (d) Sixth form

136. Consider the following description of the Samadhi of a former Prime Minister of India :

Central Samadhi platform comprises nine square black polished granite solid stone blocks, capped with a 'Diya' in the centre. The number nine holds significance and represents the navarasas, navaratras and navagrahas. Then placement of the nine-square Samadhi is in a circular lotus shaped pattern. The nine-square platform is accessed in four cardinal directions by pathways made in white composite tiles so that the floor does not get heated.

Identify the Samadhi :

- (a) Shakti Sthal
- (b) Shantivan
- (c) Sadaiv Atal
- (d) Veer Bhumi

137. IMBEX is a joint exercise conducted regularly between Armies of India and

- (a) Malaysia
- (b) Maldives
- (c) Mauritius
- (d) Myanmar

138. Who among the following was awarded The Hindu Prize in Fiction category for the year 2018 ?

- (a) Neelum Saran Gour
- (b) N Kalyan Raman
- (c) Manoranjan Byapari
- (d) Arunav Sinha

139. Who among the following was appointed as head of the seven member committee to look into revenue shortfall being faced by the states after the GST roll-out in India and suggest steps for augmenting collections ?

- (a) Himanta Biswa Sharma
- (b) Thomas Isaac
- (c) Sushil Modi
- (d) Capt Abhimanyu

140. The 15th Pravasi Bharatiya Divas, 2019 was held in

- (a) New Delhi
- (b) Gandhi Nagar
- (c) Prayagraj
- (d) Varanasi

141. Which one of the following cities was named by UNESCO as World Capital of Architecture for 2020 ?

- (a) Tokyo
- (b) Johannesburg
- (c) Rio de Janeiro
- (d) New Delhi

142. Who among the following was named ICC's emerging player of the year 2018 ?

- (a) Rishabh Pant
- (b) Josh Hazlewood
- (c) Hasan Ali
- (d) Mustafizur Rahman

143. India's first private sector Howitzer gun-making unit is located at

- (a) Jamshedpur
- (b) Kolkata
- (c) Hazira
- (d) Gwalior

144. Which of the following pairs of old names and new names of islands in India is/are correctly matched ?

- 1. Ross Island : Shaheed Dweep
- 2. Neil Island : Netaji Subhas Chandra Bose Dweep
- 3. Havelock Island : Swaraj Dweep

Select the correct answer using the code given below :

- (a) 1, 2 and 3
- (b) 2 and 3 only
- (c) 1 and 2 only
- (d) 3 only

145. Who among the following was posthumously conferred with the Ashoka Chakra, India's highest peacetime gallantry award, in 2019 ?

- (a) Jyoti Prakash Nirala
- (b) Nazir Ahmad Wani
- (c) Hangpan Dada
- (d) Mohan Nath Goswami

146. As per the code of the nomenclature, which one of the following is the correct way of writing a biological name ?

- (a) *Amoeba Proteus*
- (b) *Amoeba proteus*
- (c) *amoeba proteus*
- (d) *Amoeba Proteus*

147. Which one of the following statements regarding Electrocardiogram is correct ?

- (a) Electrocardiogram is graphical representation of electrical activity of cornea
- (b) Electrocardiogram is graphical representation of activity of kidney
- (c) Electrocardiogram is graphical representation of activity of brain
- (d) Electrocardiogram is graphical representation of electrical activity of heart

148. Which one of the following statements regarding Penicillin is correct ?

- (a) Penicillin resistant bacteria can store this antibiotic in vacuole
- (b) Penicillin resistant bacteria can degrade this antibiotic by an enzyme called β -lactamase

(c) Penicillin resistant bacteria can degrade this antibiotic by an enzyme called lactic acid dehydrogenase

(d) Penicillin is not absorbed by bacteria; so most bacteria are resistant

149. Which one of the following organelles of mammalian cell is rich in hydrolytic enzymes ?

- (a) Mitochondria
- (b) Ribosomes
- (c) Lysosome
- (d) Nucleus

150. Which one of the following statements regarding Cholera is correct ?

- (a) Cholera is a disease that causes loss of memory
- (b) Cholera is a disease of muscles due to consumption of alcohol
- (c) Cholera is a disease due to consumption of contaminated food or water
- (d) Cholera is a genetic disease