



SATISH SCIENCE ACADEMY
DHANORI PUNE - 411015

General Ability
COMPETITIVE EXAMS - NDA

Time Allowed: 2 hours and 30 minutes

Maximum Marks : 600

General Instructions:

- All questions are compulsory and carry equal marks.
- This test has 150 questions. If you find more than one correct answer choose the best one. You can choose ONLY ONE response for each question.
- For every wrong attempt, 1/3 marks will be deducted.

PART-A

- 1) Out of the four alternatives, choose the one which best expresses the OPPOSITE meaning of the word **AGONY** [4]

a) Conflict	b) Misery
c) Sorrow	d) Ecstasy
- 2) Out of the four alternatives, choose the one which best expresses the OPPOSITE meaning of the word **ENDURING** [4]

a) Abiding	b) Unwavering
c) Transitory	d) Transient
- 3) Out of the four alternatives suggested, choose the one which best expresses the OPPOSITE meaning of the word **UNRULY** [4]

a) Orderly	b) Uneven
c) Undue	d) Dirty
- 4) Find suitable OPPOSITE meaning of the word **DENSE** [4]

a) Lean	b) Sparse
c) Slim	d) Scarce
- 5) Write the opposite of **BLITHE** [4]

a) Happy	b) Desperate
c) Joyous	d) Depressed

Question No. 6 to 15 are based on the given text. Read the text carefully and answer the questions:

In the following passage, some of the words have been left out, First, read the passage over and try to understand what it is about. Then fill in the blanks with the help of the alternatives given.

In most enterprises around the world, it is the information technology infrastructure that is undergoing the most rapid upgradation. Perhaps this is a direct result of the rate of (1) in the information technology industry, (2), with new (3) and business (4) invading our consciousness everyday. In this context, it is the (5) of this new technology that looms (6) as an issue (7) the chief information officers of end - user organisations. Given the (8) of magnitude (9) the investments required and associated (10) in human terms in order to effect change of this magnitude, this concern is hardly surprising.

- 6) Find the best suitable option out of rejection, growth, obsolescence, magnificence to fill (1) in the above passage. [4]

a) Magnificence	b) Rejection
c) Obsolescence	d) Growth
- 7) Find the best suitable option out of Where, Hence, What, Since to fill (2) in the above passage. [4]

- | | |
|----------|----------|
| a) What | b) Since |
| c) Where | d) Hence |
- 8) Find the best suitable option out of armies, agencies, enemies, technologies to fill (3) in the above passage. [4]

a) Agencies	b) Armies
c) Technologies	d) Enemies
 - 9) Find the best suitable option out of relations, prospects, applications, agreements to fill (4) in the above passage. [4]

a) Agreements	b) Relations
c) Prospects	d) Applications
 - 10) Find the best suitable option out of absorption, development, delineation, filtration to fill (5) in the above passage. [4]

a) Absorption	b) Delineation
c) Development	d) Filtration
 - 11) Find the best suitable option out of large, wide, across, close to fill (6) in the above passage. [4]

a) Across	b) Wide
c) Large	d) Close
 - 12) Find the best suitable option out of eluding, facing, confounding, comprising to fill (7) in the above passage. [4]

a) Confounding	b) Comprising
c) Eluding	d) Facing
 - 13) Find the best suitable option out of order, priority, quality, gravity to fill (8) in the above passage. [4]

a) Quality	b) Order
c) Gravity	d) Priority
 - 14) Find the best suitable option out of in, on, for, of to fill (9) in the above passage. [4]

a) In	b) For
c) Of	d) On
 - 15) Find the best suitable option out of choices, costs, feelings, possibilities to fill (10) in the above passage. [4]

a) Feelings	b) Choices
c) Costs	d) Possibilities
 - 16) Choose the correct alternative out of the four. They abandoned their comrades _____ the wolves. [4]

a) Between	b) Among
c) On	d) By
 - 17) A person who ___ on his own effort has the best chance to win. [4]

- i. Never
- ii. I have
- iii. Seen such a town.
- iv. No error

[4]

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

37) Which part of the given sentence is erroneous? In case, there is no error, choose option (d).

- i. Most of us who are older competitive runners
- ii. Are not able to race anywhere at the same speed
- iii. As we do when we were 30.
- iv. No error

[4]

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

38) Which part of the given sentence is erroneous? In case, there is no error, choose option (d).

- i. Even though she lost the beauty contest,
- ii. She was still more prettier
- iii. Than the other girls.
- iv. No error

[4]

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

39) Which part of the given sentence is erroneous? In case, there is no error, choose option (d).

- i. The differential attractions of the sun and the moon have a direct effect
- ii. In the rising and failing
- iii. Of the tides.
- iv. No error

[4]

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

40) Which part of the given sentence is erroneous? In case, there is no error, choose option (d).

- i. Either he
- ii. Or I
- iii. Are wrong.
- iv. No error

[4]

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

Question No. 41 to 45 are based on the given text. Read the text carefully and answer the questions:

My most interesting visitor comes at night, when the lights are still burning - a tiny bat who prefers to fly in through the open door and will use the window only if there is no alternative. His objective of entering the house is to snap up the moths that cluster around the lamps. All the bats I have seen fly fairly high, keeping near the ceiling; but this particular bat flies in low, like a dive - bomber, zooming in and out of chair legs and under table. Once, he passed straight between my legs. Has his radar gone wrong, I wondered, or is he just plain crazy?

41) Consider the following statements.

- i. The tiny bat flew in low like a dive bomber.
- ii. The tiny bat like all bats keeps near the ceiling.
- iii. It has lost direction because its radar has gone wrong.
- iv. It wants to entertain the author with its skill in flying.

Which of the above statements may be assumed to be true from the information given in the passage? [4]

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

42) The bat entered the room [4]

- a) Because there was no alternative
- b) As it preferred to fly in through the open door
- c) To eat the moths round the lamps
- d) As it had gone mad

43) After comparing the habits of the tiny bat with those of other bats, the author was [4]

- a) Not sure of its preferences
- b) Surprised to find that it was an expert flier
- c) Unable to give the correct explanation for its behaviour
- d) Sure that this bat had lost its direction

44) The author calls the tiny bat an **interesting visitor**. This means [4]

- a) The bat is interested in the moths.
- b) This bat surprises him by zooming in and out like a dive - bomber.
- c) This bat has peculiar qualities.
- d) The bat visits him at night.

45) What, according to you, would be the most suitable title for the passage? [4]

- a) A Funny Visitor b) Someone Visits Me
- c) My Nocturnal Visitor d) Night of Mysteries

46) Write the synonyms of EVADE [4]

- a) Avoid b) Delude
- c) Allude d) Circulate

47) Choose suitable alternative which best expresses the meaning of the word. **DECAY** [4]

- a) Decline b) Dispose
- c) Disturb d) Decompose

48) Write the synonyms of CONTRIVE [4]

- a) Break b) Contradict
- c) Devise d) Construe

49) Out of the four alternatives suggested, choose the one which best expresses the meaning of the word **EXECRATE** [4]

- a) Deplore b) Denounce
- c) Desecrate d) Curse

50) Write the synonyms of INCESSANT [4]

- a) Without break b) Increased
- c) Essential d) Stopped

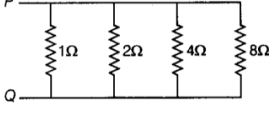
PART-B

51) If d denotes the distance covered by a car in time t and s denotes the displacement by the car during the same time, then [4]

- a) $d \leq |s|$ b) $d |s|$
- c) $d = |s|$ d) $d \geq |s|$

52) A ball is thrown vertically upward from the ground with a speed of 25.5 m/s. The ball will reach the highest point of its journey in [4]

- a) 3.57 s b) 1.29 s
- c) 2.57 s d) 5.14 s

- 53) A unloaded car moving with velocity u on a frictionless road can be stopped in a distance s . If the passengers add 40% to its weight and breaking force remains the same, then the stopping distance at velocity u is now [4]
- $(1.4)^2 s$
 - $(1.4)^3 s$
 - $1.4 s$
 - $\frac{1}{(1.4)^2} s$
- 54) Which one of the following is an example of second class lever? [4]
- A pair of scissors
 - A bottle opener
 - A bow and arrow
 - A cricket bat
- 55) The ratio of the radius of the earth to that of the moon is 10. The ratio of acceleration due to gravity on the earth and on the moon is 6. The ratio of the escape velocity from the earth's surface to that from the moon is [4]
- 8
 - 1.66
 - 7
 - 10
- 56) Which one of the following statements is true? [4]
- The force of gravity of the Earth on the Moon is greater than the force of gravity of the Moon on the Earth.
 - The force of gravity of the Earth on the Moon and of the Moon on the Earth are equal in magnitude and are in the same direction.
 - The force of gravity of the Moon on the Earth is greater than the force of gravity of the Earth on the Moon.
 - The force of gravity of the Earth on the Moon and of the Moon on the Earth are equal in magnitude but are in opposite directions.
- 57) Buoyance is a/an [4]
- Upward force
 - Downward force
 - Downward pressure
 - Upward pressure
- 58) When a solid object is immersed in water, then there is a loss in its weight. This loss is [4]
- Equal to the weight of the water displaced
 - Less than the weight of the water displaced
 - Not related to the weight of the water displaced
 - Greater than the weight of the water displaced
- 59) A bullet of mass 10 g moving with speed of 210 m/s is stopped suddenly. If all its kinetic energy is converted into heat, then what is the amount of heat produced in calories? [4]
- 52.5×10^4
 - 525
 - 52.5
 - 52.5×10^2
- 60) Water boils at a lower temperature at high altitudes, because [4]
- The boiling point changes with altitude
 - Outside temperature is less
 - Latent heat is less
 - The air pressure is less
- 61) The source and sink temperatures of a Carnot engine are 400 K and 300 K, its efficiency is [4]
- 50%
 - 30%
 - 25%
 - 100%
- 62) Which one among the following statements about thermal conductivity is correct? [4]
- Water > steel > wood
 - Steel > wood > water
 - Water > wood > steel
 - Steel > water > wood
- 63) Rays of light get refracted while passing from air to glass because [4]
- They cannot be reflected from a glass surface
 - Speed of light in glass is less than the speed of light in air
 - Density of glass is lower than that of air
 - Glass absorbs energy from the light rays
- 64) The mirror used for the head light of a car is [4]
- Cylindrical
 - Spherical concave
 - Parabolic concave
 - Plane
- 65) A glass prism splits white light into different colours. This phenomenon is called dispersion of light by prism. Which one of the following statements is correct? [4]
- Red light will deviate the most and it is because of the refraction of light.
 - Red light will deviate the most and it is because of the reflection of light.
 - Violet light will deviate the most and it is because of the reflection of light.
 - Violet light will deviate the most and it is because of the refraction of light.
- 66) An elastic spring has a force constant k . It is cut into three equal parts. The force constant of each part is [4]
- $3k$
 - $\frac{k}{3}$
 - k^3
 - K
- 67) Which one of the following statements is not true for a flute, a musical instrument? [4]
- Sound comes from a vibrating column of air inside the flute.
 - Sound comes from a vibrating column of air inside as well as outside the flute.
 - Arrival time of the waves on the blowing jet determines the pitch of the produced note.
 - Momentum of waves on the blowing jet determines the loudness of the produced note.
- 68) The radius of earth is 6400 km, the capacitance of earth is [4]
- $511 \mu F$
 - $711 \mu F$
 - $611 \mu F$
 - $811 \mu F$
- 69) The sum of emf 's and potential differences around a closed loop equals zero is a consequence of [4]
- Conservation of charge
 - Ohm's law
 - Conservation of momentum
 - Conservation of energy
- 70) In the electrical circuit shown below, what is the effective resistance between points P and Q?
- 
- [4]
- 15Ω
 - $\frac{8}{15} \Omega$
 - $\frac{15}{8} \Omega$
 - $\frac{3}{2} \Omega$
- 71) A jet aircraft is flying due to South at 300 m/s at a place, where the vertical component of the earth's magnetic field is $80 \mu T$. The potential difference between wing tips, if they are 25 m apart is [4]

- a) 0.3 V b) 0.2 V
c) 0.6 V d) 0.5 V
- 72) In combined field of a magnet and earth two null points are located on its axis. The magnet is placed with its axis [4]
a) Perpendicular to meridian, N - pole facing North
b) In the magnetic meridian, S - pole facing North
c) In the magnetic meridian, N - pole facing North
d) Perpendicular to meridian, S - pole facing North
- 73) Thermal neutrons have energy equal to [4]
a) 2.5 eV b) 0.025 eV
c) 0.0025 eV d) 0.25 eV
- 74) Which one of the following wavelengths correspond to the wavelength of X - rays? [4]
a) 100 nm b) 5000 nm
c) 500 nm d) 1 nm
- 75) For light of wavelength 5000\AA , the photon energy is nearly 2.5 eV. For X - ray of wavelength 1\AA , the photon energy will be close to [4]
a) $\left(\frac{2.5}{5000}\right)\text{eV}$
b) $[2.5 \times 5000]\text{eV}$
c) $2.5 \times (5000)^2\text{eV}$
d) $\left[\frac{2.5}{(5000)^2}\right]\text{eV}$
- 76) Which of the following is an example of chemical change? [4]
a) Breaking a glass
b) Souring of milk
c) Melting of ice
d) Crystallisation of sodium chloride
- 77) The boiling points of two miscible liquids X and Y are close to each other. Their separation is best carried out by [4]
a) Fractional distillation
b) Simple distillation
c) Steam distillation
d) Vacuum distillation
- 78) A student by chance mixed acetone with alcohol. This mixture of acetone and alcohol can be separated by [4]
a) Separating funnel
b) Filtration
c) Fractional crystallisation
d) Fractional distillation
- 79) Law of conservation of mass is not correct for [4]
a) Hydrolysis b) Oxidation
c) Radioactive change d) Combustion
- 80) What is the number of mole(s) of $\text{H}_2(g)$ required to saturate one mole of benzene? [4]
a) 4 b) 1
c) 3 d) 2
- 81) Neutrons are present in all atoms except [4]
a) N b) H
c) C d) He
- 82) The number of protons in a negatively charged atom (anion) is [4]
a) More than the number of electrons in the atom
b) Less than the atomic number of an element
c) More than the atomic number of an element
d) Less than the number of electrons in the atom
- 83) Which among the following is the correct arrangement of halogens in the increasing order of their oxidising nature? [4]
a) Br, I, Cl, F b) I, Br, Cl, F
c) F, Cl, Br, I d) Cl, Br, F, I
- 84) The formula of a metallic chloride is MCl_2 , the formula of its bicarbonate is [4]
a) $\text{M}(\text{CO}_3)_2$ b) $\text{M}(\text{HCO}_3)_2$
c) MCO_3 d) MHCO_3
- 85) Which one of the following is the correct sequence of change in colours when a turmeric stain on white clothes is scrubbed by soap and then washed with water? [4]
a) Yellow - reddish brown - blue
b) Yellow - pink - blue
c) Yellow - reddish brown - yellow
d) Yellow - blue - pink
- 86) **Statement I:** Zinc is used for galvanisation to protect iron from rusting.
Statement II: Zinc is more reactive towards oxygen than Iron. [4]
a) Statement I is false, but Statement II is true.
b) Statement I is true, but Statement II is false.
c) Both the Statement are true and Statement II is the correct explanation of Statement I.
d) Both the Statement are true, but Statement II is not the correct explanation of Statement I.
- 87) Hydrogen is collected [4]
a) Over alcohol b) Over water
c) Over acid d) Over platinum
- 88) Oxidation of NO in air produces [4]
a) N_2O_5 b) N_2O
c) NO_2 d) N_2O_3
- 89) Solder is an alloy of [4]
a) Ag and Zn b) Pb and Sn
c) Cu and Sn d) Fe and Zn
- 90) Choose the correct match. [4]
a) Thenard - Blue - $\text{CaO} \cdot \text{Al}_2\text{O}_3$
b) Azurite - Blue - Pb_2O_4
c) Lithopone - Black - $\text{CaO} \cdot \text{Al}_2\text{O}_3$
d) Lithopone - White - $\text{BaSO}_4 + \text{ZnS}$
- 91) Which of the following does not possess a specialised conducting tissue for transport of water and other substances in plants? [4]
a) Cycas b) Angiosperms
c) Fern d) Marchantia
- 92) Which one of the following differentiates plant cells from animal cells? [4]
a) Large vacuole, plastid and cell wall
b) Cell wall, plastid and centriole
c) Cell wall, plastid and mitochondria
d) Cell membrane, plastid and cell wall
- 93) Which one of the following diseases may be caused by the deficiency of vitamin - C? [4]
a) Scurvy b) Rickets
c) Hepatitis d) Rabies
- 94) Study the following statements.
i. Tap root commonly occurs in dicotyledons.

- ii. Onion is a modified form of stem.
- iii. Ginger is a modified leaf
- iv. Eyes of potato are axillary buds.

Which of the statements given above are correct? [4]

- a) I, ii, iii and iv
- b) I, ii and iv
- c) I and ii
- d) I, ii and iii

95) Consider the following statements.

- i. Annual rings are distinct in plants, which are grown in temperate region.
- ii. One growing ring of plant consists of spring wood and autumn wood.

Which of the statements given above is/are correct about annual ring? [4]

- a) Only ii
- b) Only i
- c) Both i and ii
- d) None of these

96) Auxins were first isolated from [4]

- a) Urine
- b) Avena tip
- c) Corn germ oil
- d) Rhizopus

97) The process of excretion involves [4]

- a) Removal of byproducts formed during useful activities in the body.
- b) Removal of substances which have never been used by the body.
- c) Removal of metabolic wastes from the body.
- d) Removal of useful substances from the body.

98) The male sex hormone is called [4]

- a) Vasopressin
- b) Testosterone
- c) FSH
- d) Gonadotropic hormone

99) Which one of the following is a genetic disorder? [4]

- a) Osteoporosis
- b) Sickle - cell anaemia
- c) Night blindness
- d) Bronchitis

100) Which of the following disease is not found in cattle? [4]

- a) Ranikhet
- b) Both Athlete's foot and Ranikhet
- c) Ascariasis
- d) Athlete's foot

101) The administrative consequence of the Revolt of 1857 was transfer of power from [4]

- a) East India Company to the Governor General
- b) British Crown to the Board of Directors
- c) British Crown to the East India Company
- d) East India Company to the British Crown

102) Where is Gol Gumbaz, the largest dome in the world, situated? [4]

- a) Cairo
- b) Damascus
- c) Bijapur
- d) Istanbul

103) Tripitakas' are sacred books of [4]

- a) Parsis
- b) Hindus
- c) Buddhists
- d) Jains

104) Who was the first and the last woman ruler of Delhi? [4]

- a) Noor Jahan
- b) Mumtaz Mahal
- c) Razia Sultan
- d) Chand Bibi

105) Who was the last Viceroy of India? [4]

- a) Clement Attlee
- b) Lord Mountbatten
- c) Lord Wavell
- d) Lord Linlithgow

106) Name the oldest Indian civilization. [4]

- a) Egyptian civilization
- b) Indus Valley civilization
- c) Mesopotamian civilization
- d) Greek civilization

107) The founders of the Paramhansa Mandali founded in Maharashtra believed in which one of the following? [4]

- a) Glorification of caste system.
- b) Social distancing along caste lines.
- c) One God and in breaking caste rules.
- d) Forbidding widow remarriage.

108) The capital of the Eastern Chalukyas was: [4]

- a) Vatapi
- b) Amaravati
- c) Vengi
- d) Nagarjunakonda

109) **Statement I:** In the 19th century, India was the largest British colony.

Statement II: India became a big market for British manufactured goods and a field of investment for foreign capital in the 19th century. [4]

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

110) The Lodi dynasty was founded by [4]

- a) Khizr Khan
- b) Sikandar Lodi
- c) Ibrahim Lodi
- d) Bahlol Lodi

111) 'Buddha' means [4]

- a) The Genius
- b) The Enlightened one
- c) The Powerful
- d) The Religious Preacher

112) The word 'Veda' means [4]

- a) Power
- b) Wisdom
- c) Knowledge
- d) Skill

113) Who founded the Indian National Party in Berlin during 1914? [4]

- a) Champakaraman Pillai
- b) W.C. Banerjee
- c) Subhash Chandra Bose
- d) Surendranath Banerjee

114) Prince Ellara conquered Sri Lanka in the second century BC. With which of the following dynasties of Dravida ruler was he associated? [4]

- a) Pandya
- b) Chola
- c) Pallava
- d) Chera

115) Harshvardhana was defeated by [4]

- a) Sasanka
- b) Pulakesin II
- c) Prabhakaravardhana
- d) Narasimhasvarma

116) On which of the following date insurgents of France attacked on Bastille Jail? [4]

- a) 14th July, 1789
- b) 2nd October, 1891
- c) 1st May, 1800
- d) 15th December, 1791

117) Herodotus is considered as the father of [4]

- a) History
- b) Political Science
- c) Philosophy
- d) Geography

118) Who were the Axis powers in World War - II? [4]

