DEECET – 2018

PHYSICAL SCIENCE (EM)

Teaching Aptitude

1. The academic authority to develop textbooks for school education in our State is

    1. SCERT, Andhra Pradesh
    2. SSA, Andhra Pradesh
    3. SIET, Andhra Pradesh
    4. RMSA, Andhra Pradesh

2. The schools established by Central Government for the merit rural students as per 1986 National Policy on Education

    1. Kendriya Vidyalaya
    2. Novadaya Vidyalaya
    3. Kasturba School
    4. Social Welfare Schools

3. Members of School Management Committee (SMC) are

    1. Students of the school
    2. Revenue officer of the Village
    3. Parents of the students
    4. President - Mandal Praja Parishad

4. There are two mentally retarded children in your class. While teaching

    1. Teach them along with other children
    2. Let them to sit in a separate room
    3. Allow them to go to home after taking attendance
    4. Allow them to participate only in games

5. Primary schools working hours in our State

    1. 9.00 A.M. to 3.45 P.M.
    2. 8.45 A.M. to 3.45 P.M.
    3. 9.30 A.M. to 4.30 P.M.
    4. 9.00 A.M. to 4.15 P.M.

G. K.

6. Kia Motors – the international organization started its activities in this district

    1. Chittoor
    2. Ananthapuram
    3. Kadapa
    4. Nellore

7. The number ‘1100’ belongs to this programme started by our State Government

    1. Pelli Kanuka
    2. Real time Governance
    3. People first
    4. e - Pragathi

8. Ude Desh Ka Aam Naagrik (UDAN) the regional connectivity scheme is related to

    1. air travel
    2. bus roots
    3. railways
    4. water transport

9. Aghakhan Cup is associated with this game

    1. Badminton
    2. Hockey
    3. Football
    4. Cricket

10. The full from of ‘http’ in web address is

    1. hyper text transfer protocol
    2. hyper transmission treatment programme
    3. hyper text travelling pin
    4. high time text process

English – SET - 3

11. Read the following passage and choose the correct answer to the questions (11-12)

We need a balanced diet to be healthy. Balanced diet provides us major nutrients such as carbohydrates, fats, vitamins, minerals, and proteins. There are two different types of source of proteins – animal sources and plant sources. Animal sources include fish, eggs, meat etc. Peas and beans are important sources of protein. Protein is a good companion for our health.

This passage says that:

1. Proteins are not a part of balanced diet.
2. Eggs are not the source of protein.
3. Balanced diet does not contain proteins.
4. We should take not only carbohydrates but also fats, vitamins, minerals and proteins.

12. Choose the correct synonym and the antonym of the word, 'companion' respectively.

1. friend (synonym); buddy (antonym)
2. antagonist (synonym); opponent (antonym)
3. buddy (synonym); opponent (antonym)
4. partner (synonym); associate (antonym)

13. Choose the adjective that cannot be used before the word, 'light'.

1. proud
2. bright
3. intense
4. harsh

14. The following is to be said in the opening part of a letter to your friend:

    1. Inform the recipient why you are writing the letter
    2. Ask the recipient if he is good at English
    3. Talk about the crops in your village
    4. Ask the person about his welfare.

15. May his soul rest in peace!

    This sentence expresses:

    1. a certainty
    2. a wish
    3. an obligation
    4. a permission

Telugu

16. తల్లి దాస్య విముక్తికోసం అమృతాన్ని తెచ్చినది.

    1. ఇంద్రుడు
    2. తక్షకుడు
    3. ఆదిశేషుడు
    4. గరుత్మంతుడు

17. సముద్రం విశాలమైనది. ఈ వాక్యంలో "సముద్రం" పదానికి వికృతి

    1. సముద్రము
    2. అర్ణవము
    3. సంద్రం
    4. సన్నద్ధం

18. శ్రీలు పొంగిన జీవగడ్డ భరతభూమి. ఈ వాక్యంలో "శ్రీలు" అనగా అర్థం

    1. కష్టాలు
    2. సంపదలు
    3. వనాలు
    4. నష్టాలు

19. "నందగోపుడు ఆరాటపడ్డాడు". ఈ వాక్యానికి సరైన వ్యతిరేకార్థక వాక్యం

    1. నందగోపుడు ఆరాటపడలేదు
    2. నందగోపుడు ఆరాటపడతాడు
    3. నందగోపుడు ఆరాటపడుతున్నాడు
    4. నందగోపునికి ఆరాటం ఎక్కువ

20. ‘అసాధారణం’ ఈ పదానికి సరైన విగ్రహవాక్యం గుర్తించండి.

1. సాధారణం
2. సాధారణమైనది
3. సాధారణం కానిది
4. రణమైనది.

1st Language English – SET - 3

ENGLISH (OPTED LANGUAGE)

21. Read the following passage and choose correct answer.

Every year a tree grows a little bigger. As it grows, the trunk gets another layer of wood; it gets another ring. You cannot see the rings because they are inside the tree. But if you look at the trunk of a cut down tree carefully, you will find the rings. One ring indicates one year. Some trees can live only for five to ten years. But some can live for hundreds or even thousands of years, like General Sherman.

Choose the correct statement from the following with reference to the passage.

1. Every tree is General Sherman.
2. All trees get a ring every year.
3. Only General Sherman gets rings for five to ten years.
4. General Sherman lives only for five to ten years.

22. Read the following passage and choose correct answer.

Every year a tree grows a little bigger. As it grows, the trunk gets another layer of wood; it gets another ring. You cannot see the rings because they are inside the tree. But if you look at the trunk of a cut down tree carefully, you will find the rings. One ring indicates one year. Some trees can live only for five to ten years. But some can live for hundreds or even thousands of years, like General Sherman.

Choose the incorrect statement from the following with reference to the passage.

1. The trunk gets layers as it grows.
2. Some trees live up to hundred years.
3. People cut down trees to enjoy seeing the rings.
4. The rings can refer to the age of a tree.

23. He was gazing ……. the blackboard intently.

Choose the correct preposition that fits the blank.

1. on
2. from
3. with
4. at

24. Good management of natural resources is not possible if you do not have democratic space.

In the above sentence, 'if' is used :

1. to express a reason
2. to introduce a cause
3. to express a result
4. to mention a condition

25. The new teacher could not stomach a Hindu priest's son sitting with a Muslim boy.

In the above sentence, the word 'stomach' is:

1. a verb
2. an adverb
3. an adjective
4. a noun

26. Choose the word with wrong spelling.

1. moustache
2. equippment
3. kerosene
4. medicine

27. In times of natural calamity like floods, storms or fire, the usual mode of communication like phone, mobile etc might not work or might become inoperative.

Choose the word that does not mean 'inoperative'.

1. defective
2. faulty
3. adequate
4. inactive

28. Choose the past tense of the verb 'rise'.

1. rised
2. raised
3. rosed
4. rose

29. Choose the incorrect expression with respect to the use of quantifiers.

1. much change
2. much people
3. **much patience**
4. much wind

30. Choose the writing discourse that is not personal.

1. An autobiography
2. A diary entry
3. A news report
4. A letter to a friend

Mathematics – SET - 3

31. The ascending order of $\frac{5}{8}, \frac{5}{6}, \frac{1}{2}$ is

1. $\frac{1}{2}, \frac{5}{6}, \frac{5}{8}$
2. $\frac{5}{6}, \frac{5}{8}, \frac{1}{2}$
3. $\frac{1}{2}, \frac{5}{8}, \frac{5}{6}$
4. $\frac{5}{8}, \frac{5}{6}, \frac{1}{2}$

32. If $a+b+c = 7$ and $a^2 + b^2 + c^2 = 29$ then the value of $3ab + 3bc + 3ca$ is

1. 78
2. 36
3. 20
4. 30

33. The perimeters of two similar triangles are 30cm and 20cm respectively. If one side of the first triangle is 12cm then the corresponding side of the second triangle is (in cms.)

1. 6
2. 8
3. 12
4. 18

34. If α, β, γ are zeroes of the Polynomial $P(x) = ax^3 + bx^2 + cx + d$ then the value of $\frac{1}{\alpha} + \frac{1}{\beta} + \frac{1}{\gamma}$ is

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

35. The area of a rhombus whose side measures 13cm and one diagonal 24cm is (in sq. cms)

1. 60
2. 120
3. 130
4. 240

36. A shirt of marked price Rs. 800, was sold at Rs. 680. The percentage of discount allowed on the shirt is

1. 10%
2. 15%
3. 20%
4. 25%

37. The range of the data 30, 61, 55, 56, 60, 20, 26, 46, 28, 56 is

1. 26
2. 30
3. 41
4. 61

38. If two cones have their heights in the ratio 1 : 3 and radii in the ratio 3 : 1, then the ratio of their volumes is

1. 3 : 1
2. 1 : 3
3. 1 : 9
4. 9 : 1

39. If 'P^{th}' term of a series 21, 42, 63 …. is 420 then the value of 'P' is

1. 19
2. 20
3. 21
4. 22

40. If the supplement of an angle and the angle are in the ratio 1 : 3 then the least angle among them is

1. 135º
2. $67\frac{1}{2}^{\circ}$
3. 45º
4. $22\frac{1}{2}^{\circ}$

General Science – SET – 3

Biology

41. Reticulate venation is seen in

    1. Paddy
    2. Ficus
    3. Banana
    4. Maize

42. Example for incomplete flower

    1. Datura
    2. Hibiscus
    3. Papaya
    4. Ipomea

43. Secretions of endocrine glands are called

    1. Enzymes
    2. Hormones
    3. Juices
    4. Chemicals

44. Yellow spot of the eye is also called

1. Rod
2. Cone
3. Macula
4. Sclera

45. Number of chromosomes in a human cell

1. 23
2. 23 pairs
3. 44
4. 22 pairs

General Science – SET-3

Physical Science

46. Which of the following is not a permanent change

    1. Rusting of Iron
    2. Boiling an egg in water
    3. Change in seasons
    4. Change from milk to curd

47. When lemon juice is added to egg shells, the evolved gas is

    1. Hydrogen
    2. Oxygen
    3. Carbon monoxide
    4. Carbon dioxide

48. The reason for streamlined shape of aeroplane and submarines is

    1. Loosing the energy by increasing the fluid friction
    2. Saving energy by decreasing the fluid friction
    3. Saving fuel by increasing the fluid friction
    4. Reducing the speed by decreasing the fluid friction

49. The S.I. Unit of work is

    1. Newton
    2. Newton – $meter^2$
    3. Newton / meter
    4. Newton - meter

50. Which of the following eye defect is corrected by using bifocal lens

1. Myopia
2. Hypermetropia
3. Cataract
4. Presbyopia

Social Studies – SET - 3

51. The most densely populated state in India as per 2011 census is

    1. West Bengal
    2. Uttar Pradesh
    3. Arunachal Pradesh
    4. Bihar

52. The country that occupied Vietnam, as part of its imperial drive to control South East Asia in 1940 was

    1. Japan
    2. Germany
    3. China
    4. Italy

53. The industry that is providing employment opportunities to a large number of people in India.

    1. Auto mobile industry
    2. Iron and steel industry
    3. Textile industry
    4. Cement industry

54. In the opinion of Carl Marx and Frederic Engels, capitalism is

A) A progressive force in history

B) An exploitative system that alienates both capitalists and workers from their humanity

1. A only is correct
2. B only is correct
3. Both A and B are correct
4. A nor B both are not correct

55. The book ‘Satyartha Prakash” was written by

1. Raja Rammohan Roy
2. Rama Krishna Pramahamsa
3. Vivekananda
4. Dayananda Saraswati

56. The word of Indian constitution Preamble that denotes that no external power can make laws for India is

1. Republic
2. Sovereign
3. Socialist
4. Secular

57. The number of assembly constituencies in Andhra Pradesh at present is

1. 294
2. 175
3. 119
4. 58

58. The Kandariya Mahadeva temple of Lord Shiva was constructed by the King

1. Ganapati Deva
2. Krishnadevaraya
3. Rajendra - I
4. Dhangadeva

59. The Mahajanapada that was situated in South India was.

1. Avanti
2. Chedi
3. Magadha
4. Asmaka

60. Periyapuranam, a 12th century Tamil book describes the religious practices of hunter – gatherers lived near.

1. Sri Sailam
2. Sri Kalahasti
3. Chintakunta
4. Kamakur

DEECET – 2018

(Physical SCIENCE) (EM)

Inter Physics – SET - 1

61. "Among the following, which pair of physical quantities are not having same dimensional formulae

    1. Linear Momentum, Impulse
    2. Angular Momentum, Planck's Constant
    3. Surface Tension, Force Constant
    4. Work, Power

62. The maximum height reached by a projectile launched at an angle of 45º with the horizontal is

    1. Half of its range
    2. One third of its range
    3. One quarter of its range
    4. Equal to its range

63. If F_S, F_K, F_R are static, kinetic, rolling frictional forces then

    1. $F_S > F_K > F_R$
    2. $F_S < F_K < F_R$
    3. $F_S > F_K < F_R$
    4. $F_S < F_K > F_R$

64. A person holding 150 kg. mass steadily on his shoulders for 30 seconds, then the work done by him

1. 4500 J
2. 0 J
3. 180 J
4. 120 J

65. The angular velocity of a seconds hand in a wristwatch

1. $\frac{\pi}{60}$ rad/sec
2. $\frac{\pi}{90}$ rad/sec
3. $\frac{\pi}{30}$ rad/sec
4. $\frac{\pi}{45}$ rad/sec

66. If the amplitude of simple harmonic oscillator is slightly increases, then its time period

1. Decreases
2. Increases
3. Becomes zero
4. Remains constant

67. If escape velocity is V_e and orbital velocity is V_o, then the relation between escape and orbital velocity is

1. $V_e = \sqrt{2V_o}$
2. $V_e = \sqrt{2}\, V_o$
3. $V_e = 2V_o$
4. $V_e = \frac{V_o}{\sqrt{2}}$

68. The work done per unit volume in stretching a wire is given by

1. Stress × Strain
2. Strain / Stress
3. Stress / Strain
4. $\frac{1}{2}$ × Stress × Strain

69. The difference between upper and lower fixing points of Fahrenheit scale

1. 100
2. 180
3. 273
4. 0

70. The SI value of Joule's Constant

1. 4.186
2. 4.2
3. 1
4. 4200

71. The phase difference between the incident and reflected pulse at a rigid boundary is

1. π
2. 2π
3. $\frac{\pi}{4}$
4. $\frac{\pi}{3}$

72. The bottom of a water tank appears to be concave due to

1. Reflection
2. Refraction
3. Diffraction
4. Scattering

73. The Electric flux $\Delta\phi$ through an area element ΔS is defined by

1. $\Delta\phi = \vec{E}.\vec{\Delta S}$
2. $\vec{\Delta\phi} = \vec{E}\times\vec{\Delta S}$
3. $\vec{\Delta\phi} = \vec{E}+\vec{\Delta S}$
4. $\vec{\Delta\phi} = \vec{E}-\vec{\Delta S}$

74. Consider the following statements ‘A’ and ‘B’ and identify the correct answer

A) An ideal ammeter has zero resistance

B) An ideal voltmeter has zero resistance

1. ‘A’ is false ‘B’ is true
2. Both ‘A’ and ‘B’ are true
3. ‘A’ is true ‘B’ is false
4. Both ‘A’ and ‘B’ are false

75. A wire of resistance 4R is bent in the form of a circle. The effective resistance between the ends of the diameter

1. R
2. $\frac{R}{2}$
3. 2R
4. 4R

76. Lenz’s law is based on the law of conservation of

1. Charge
2. Energy
3. Mass
4. Momentum

77. Match the following

Column – I	Column – II
1) Step up transformer	A) $\frac{N_S}{N_P} > 1$
2) Step down transformer	B) $\frac{N_S}{N_P} < 1$
3) Ideal transformer	C) $\frac{N_S}{N_P} = 1$

1. 1 – C, 2 – B, 3 – A
2. 1 – B, 2 – A, 3 – C
3. 1 – A, 2 – B, 3 – C
4. 1 – B, 2 – C, 3 – A

78. Assertion : On increasing the frequency of incident light larger number of photo electrons are emitted

Reason: The number of electrons emitted depends on the intensity of incident light

A) Both Assertion and reason are true and reason is correct explanation of Assertion.
B) Both Assertion and reason are true but reason is not correct explanation of Assertion.
C) Assertion is true reason is false
D) Reason is true Assertion is false

1. A
2. B
3. C
4. D

79. The inert gas released in nuclear fission of U_{92}^{235}

1. Argon
2. Neon
3. Krypton
4. Helium

80. To form a P- type semiconductor germanium is doped with

1. Arsenic
2. Aluminium
3. Antimony
4. Phosphorous

Inter Chemistry– SET - 1

81. Specific charge of electron (e/m) value is

1. $1.758\times10^{11}\ C.kg^{-1}$
2. $1.602\times10^{-19}\ C.gm^{-1}$
3. $4.8\times10^{-10}\ C.gm^{-1}$
4. $9.1\times10^{-28}\ C.gm^{-1}$

82. Which of the following is Isoelectronic species?

1. N^{3-}, P^{3-}
2. O^{2-}, S^{-2}
3. N^{3-}, O^{-2}
4. O^{2-}, P^{-3}

83. The Molecule deviates octet rule is

1. CH_4
2. NH_3
3. H_2O
4. SF_6

84. Which of the following statements are true?

i) Curves plotted between volume and temperature at constant pressure are called Isobars.

ii) Curves plotted between volume and pressure at constant Temperature are called Isotherms

iii) Curves plotted between volume and temperature at constant pressure are called Isochores.

1. i, ii
2. ii, iii
3. i, iii
4. All are true

85. Equivalent weight of $KMnO_4$ in acid medium is (M = Molecular weight of $KMnO_4$)

1. M
2. $\frac{M}{5}$
3. $\frac{M}{3}$
4. $\frac{M}{6}$

86. Write the relationship between ΔH, ΔU

ΔH = Change of enthalpy ΔU = Change of Internal energy

1. $\Delta U = \Delta H$
2. $\Delta H = -\Delta U$
3. $\Delta H = \Delta U + \Delta nRT$
4. $\Delta H + \Delta U = P\Delta V$

87. K_p equation of $\underset{(S)}{CaCO_3} \rightleftharpoons \underset{(S)}{CaO} + \underset{(g)}{CO_2}$

1. $K_p = P_{CO_2}$
2. $K_p = \dfrac{1}{P_{CO_2}}$
3. $K_p = \dfrac{P_{CaO}.P_{CO_2}}{P_{CaCO_3}}$
4. $K_p = \dfrac{P_{CaCO_3}}{P_{CaO}.P_{CO_2}}$

88. Formula of Baking Soda is

1. $Na_2CO_3.10H_2O$
2. NaOH
3. $NaHCO_3$
4. $NaNO_3$

89. Crystalline allotrope of Carbon is

1. Coal
2. Coke
3. Silicon
4. Diamond

90. The gas causes acid rain is

1. CO
2. SO_2
3. CFC
4. O_3

91. The Covalent Crystalline Solid is

1. SiO_2
2. NaBr
3. KCl
4. NaCl

92. Molarity of 4g NaOH in 500 ml Solution is

1. 0.2 M
2. 4 M
3. 2 M
4. 3 M

93. Molten NaCl is electrolysed with platinum electrodes, the product at cathode is

1. H_2
2. Cl_2
3. Na
4. O_2

94. Freundlich adsorption equation is

1. $\frac{x}{m} = Kp^{1/n}$
2. $\frac{x}{m} = Kp$
3. $\frac{m}{x} = Kp^{1/n}$
4. $\frac{m}{x} = Kp^{n}$

95. Sulphide ore is concentrated by

1. Electromagnetic separation
2. Froth flotation
3. Levigation
4. Leaching

96. The Neutral oxide of Nitrogen is

1. NO_2
2. N_2O_3
3. N_2O_5
4. N_2O

97. Ion containing unpaired electron is

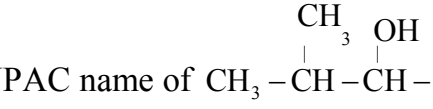
1. Cu^{+2}
2. Na^{+}
3. Mg^{+2}
4. K^{+}

98. The element which is used in Vulcanization of rubber

1. S
2. P
3. Na
4. C

99. Preparation process or Ether is

1. Wurtz reaction
2. Williamson Synthesis
3. Aldol Condensation
4. Riemer – Tiemann reaction

100. IUPAC name of  is

1. 2– Methyl - 2– Butanone
2. 3–Methyl - 2-Butanol
3. 2–Methyl Butanoic acid
4. 3–Methyl Butane