B.ED ARTS 2023

- ● E-BOOK- PDF
- ● 6,000 MCQ
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- ● EXPLANATION
- 2,250 ଟି ପୂର୍ବ ବର୍ଷର ପ୍ରଶ୍ନ

B.ED SCI. 2023

- ● E-BOOK- PDF
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- EXPLANATION
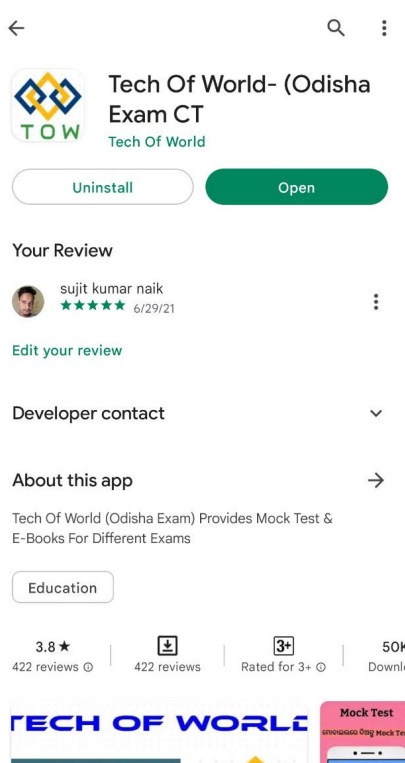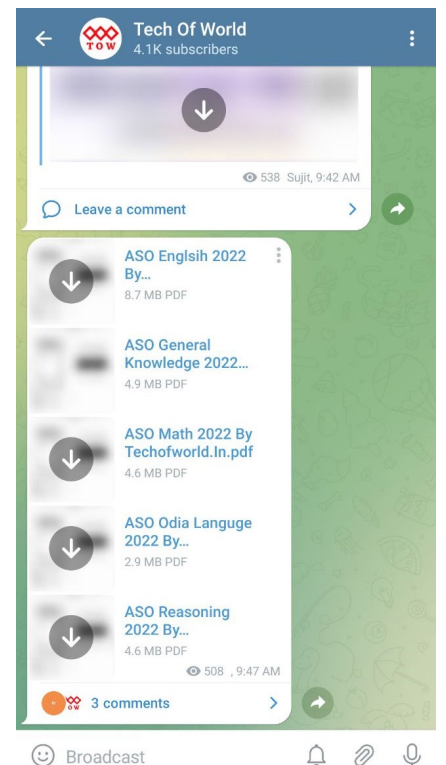- 2,300 ଟି ପୂର୍ବ ବର୍ଷର ପ୍ରଶ୍ନ
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Set Id : 46993_56   09Aug18_Batch3_B Ed Science

Section 1 - PaperI-General English

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1) Fill in the blank with an appropriate option.
Water is always ……..in deserts.

A) scarce
B) plenty
C) available
D) enough

Read the below passage and answer the questions that follow:

A recent report shows that about 70% of the water in the country is contaminated. This is a matter of grave concern. Inadequate access to potable water leads to the loss of thousands of lives each year. Access to water that is free of pathogens and other contaminants is of paramount importance to the health of people of the country. In this respect, the Government must take up harvesting rain water on a serious scale.

Rainwater is allowed to run free, inundating various places across the country annually, whereas people suffer for the want of water each summer. It is thus important to divert water during the monsoons to tank bunds. Once adequate facilities are created for storing water, necessary steps should also be taken to purify and distribute it among people.

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2) What reason has been given for the loss of thousands of lives each year?

A) Infant mortality rate is high
B) Inadequate access to potable water
C) Rations are pilfered by middlemen
D) Severe drought during summer

3) Why is 70% of water in the country unsafe to drink?

A) It is free of pathogens
B) The rainwater is not purified
C) The water is contaminated
D) The water tanks are not cleaned

4) Which of these words in the passage means 'drinkable'?

A) Pathogens
B) Harvesting
C) Contaminated
D) Potable

5) What remedy has been suggested that, the government must take up?

A) Improving the water supply system
B) Harvesting rain water
C) Building dams
D) Setting up water purification plants

6) Where should water be diverted to during monsoons?

A) Tank bunds
B) Rivers and lakes
C) Underground drains
D) Irrigation canals

7) Choose the correct given sentence.

A) He hangs out with his friends every weekend.
B) He hanged out the clothes.
C) He hanged in the kitchen towel.
D) He hangs out the phone on him.

8) Fill in the blank with an appropriate option.
To plead in favour of something is to ………….

A) advocate
B) involve
C) diverse
D) salvage

9) Choose the antonym of the underlined word in the given sentence.

During the session, the speaker was very <u>shy</u>.

A) Strange
B) Abrupt
C) Slow
D) Confident

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10) Fill in the blank with an appropriate option.
A sole ruler of a nation is called a/an ……………

A) Worker
B) Anarchy
C) Apprentice
D) Monarch

Section 2 - PaperI-Education and General Awareness

11) Which of the following schools were primarily established for the wards of the Central Government employees who are periodically transferred?

A) Kendriya Vidyalayas
B) Kasturba Gandhi Vidyalayas
C) Cambridge Schools
D) Central Tibetan Schools

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12) What does the programme 'SWAYAM' a programme for online education stand for?

A) Study Webinars of Active –Learning for Young Active Minds
B) Study Webs of Active –Learning for Young Aspiring Minds
C) Sessions on Web for Active –Learning for Young Aspiring Minds
D) Sessions on Web of Active –Learning for Youth and Active Minds

13) What is the other name for the Calcutta University Commission appointed in the year 1917?

A) Montague Commission
B) Mudaliar Commission
C) Chelmsford Commission
D) Sadler Commission

14) According to the official website of Elections, the state assembly elections is to be tentatively held in Dec 2018 for which of the following states of India?

A) Bihar
B) Andhra Pradesh
C) Madhya Pradesh
D) Gujarat

15) Which of the following is the process of heating organic material at high temperatures in the absence of oxygen?

A) Distillation
B) Haemolysis
C) Pyrolysis
D) Oxidation

Section 3 - PaperI-Reasoning

16) If HEN is coded as 52, then PAN will be coded as

A) 52
B) 72
C) 42
D) 62

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17) In the following question, 4th word is related to the 3rd word in a similar way the 2nd word related to the 1st word. Which is the 3rd word among the four options?

Reptile : Lizard :: ? : Giraffe

A) Mammal
B) Bird
C) Amphibian
D) Aquatic animal

18) If JUNGLE is coded as 36, then QUEUE will be coded as

A) 21
B) 15
C) 25
D) 10

19) If the average of three numbers is 40 and that of the first two numbers is 30, then the last number is

A) 65
B) 82
C) 86
D) 60

20) If the speed of the boat is 8 kmph and that of the stream is 6 kmph, then the downstream speed in kmph is

A) 31
B) 38
C) 41
D) 14

Section 4 - PaperI-Teaching Aptitude

21) Which agency takes care of writing text books for school students?

A) UGC
B) NCERT
C) CBSE
D) NCTE

22) Young children generally learn in the presence of a more knowledgeable other. This theory was given by

A) Skinner
B) Vygotsky
C) Thorndike
D) Freud

23) Ankur had been watching very aggressive games and therefore was becoming very aggressive in his general behaviour. This is similar to the famous experiment conducted on social learning by

A) Carl Rogers
B) Bandura
C) Vygotsky
D) Freud

24) Right to Education came into effect on

A) May 1, 2001
B) April 1, 2001
C) April 1, 2010
D) April 10, 2010

25) Which of the following is a source of physical discomfort which acts as a major deterrent in the secondary education, especially for girls?

A) Poor communication skills
B) Corporal Punishment
C) Long school hours
D) Absence of toilets and sanitary requirements

26) When education is acquired without any specific purpose, fixed period and place, it is known as

A) Direct education
B) Informal education
C) Independent Education
D) Formal education

27) Improvement in vocational efficiency was one of the major goals of education according to the following commission

A) Kothari Commission
B) University Education Commission
C) Knowledge Commission
D) Secondary Education Commission

28) When teaching English as a foreign language, which is possibly the most common problem?

A) Constant use of first-language
B) Independent thinking
C) Heavy homework
D) Inefficient teachers

29) Personality is derived from which word and what does it mean?

A) personification means a new person
B) person meaning human being
C) 'Persona' meaning mask
D) 'perso' means single

30) Radha stopped doing her work in Maths as she was scared of it. What kind of defence mechanism is this?

A) simple denial
B) Reaction formation
C) Compartmentalization
D) Dissociation

Section 5 - PaperII-Physical Science

31) Arrange the following metal in the decreasing order of their reactivity:

Mg, K, Pb, Cu, Au

A) Au, Cu, K, Mg, Pb
B) Au, K, Cu, Mg, Pb
C) K, Mg, Pb, Cu, Au
D) Mg, K, Cu, Pb, Au

32) If in a voltmeter there are 20 divisions between 0 to 0.5, what is the least count of voltmeter?

A) 0.25
B) 0.025
C) 0.05
D) 0.002

33) What are super heavy elements? (Z is the atomic number)

A) Elements with Z greater than 100 which have high densities
B) Elements which have Z = 100 and have less densities
C) Super elements have nothing to do with Z
D) Elements which have Z greater than 50 but less than 100 and high densities

34) Find the ratio of the masses, if a light string passing over a smooth light pulley connects two blocks of masses m_1 and m_2, vertically. Given that acceleration of the system is g/8.

A) 3:5
B) 9:7
C) 1:8
D) 7:4

35) In which region of the electromagnetic spectrum does the Balmer series of hydrogen atom lie?

A) Visible
B) Microwave
C) Ultraviolet
D) Infrared

36) If the elements with principal quantum number, n > 4 were not allowed in nature, the maximum number of possible elements would be

A) 18
B) 60
C) 28
D) 8

37) The "plum pudding" model of an atom is proposed by

A) Niel Bohr
B) J. J. Thomson
C) A. J. W. Sommerfeld
D) E. Rutherford

38) Disinfectants like chlorine are strong

A) oxidizing agents
B) acids
C) reducing agents
D) salts

39) Find the amount of copper obtained from100 g of copper sulphate. Atomic mass of Cu=63.5 amu

A) 53.5 amu
B) 39.81 amu
C) 63.5 amu
D) 69.81 amu

40) If a_o is the Bohr radius of the hydrogen atom, then the radius of the Bohr's first orbit of Li^{2+} is

A) $\dfrac{a_o}{9}$

B) a_o

C) $\dfrac{a_o}{3}$

D) $3a_o$

41) Find the no. of moles of NO_2 that produces 7.33 mol of HNO_3 in the commercial manufacture of nitric acid.

A) ~10.995 moles
B) ~2.995 moles
C) ~5.995 moles
D) ~8.995 moles

42) When a steady current flow in a metallic conductor of non-uniform cross section, then which of these quantities is constant along the conductor?

A) Current density
B) Current
C) Drift speed
D) Electric potential

43) A compound contains A, B and C atoms. Their oxidation numbers are +2, +5 and -2, respectively. Find the possible molecular formula of the compound.

A) $A_2(BC)_2$
B) ABC_2
C) $A_3(BC_4)_2$
D) $A_3(BC)_2$

44) If a body is falling freely under the action gravity alone in vacuum, then which of the following quantities remain constant during the fall, if air friction is neglected?

A) Potential energy
B) Kinetic Energy
C) Total linear momentum
D) Total mechanical energy

45) Hydrogen peroxide acts as

A) an oxidizing agent as well as a reducing agent
B) a reducing agent only
C) an oxidizing agent only
D) neither an oxidizing agent nor a reducing agent

46) Find the position of image formed if the candle is held 3 cm away from a concave mirror of radius of curvature 24 cm.

A) +8 cm
B) -8 cm
C) -4 cm
D) +4 cm

47) What are the values of the quantum numbers n and l for the electron with highest energy in Na atom?

A) $n = 3$; $l = 0$
B) $n = 3$; $l = 1$
C) $n = 2$; $l = 1$
D) $n = 2$; $l = 2$

48) How many moles of methane are required to produce 22 g of CO_2 after combustion?

A) 1.5
B) 0.5
C) 1
D) 2

49) Which force will act on the player, when a football player who is moving northward suddenly turns westward with the same speed to avoid an opponent?

A) Frictional force along south west
B) Frictional force along westward
C) Muscle force along southward
D) Muscle force along southwest

50) Two liquids of equal masses one at 20^0 C and the other at 40^0 C are mixed together. The temperature of the mixture is 32^0C. The ratio of their specific heats is

A) 1:1
B) 3:2
C) 1:3
D) 2:3

Section 6 - PaperII-Biological Science

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51) A type of respiration that takes place through skin is known as

A) cutaneous respiration
B) pulmonary respiration
C) bronchial respiration
D) buccopharyngeal respiration

52) Eukaryotes contain 80S ribosomes which is made up of

A) 60S and 20S subunits
B) 50S and 30S subunits
C) 60S and 40S subunits
D) 60S and 30S subunits

53) In nitrogen cycle which of the following is a denitrifying bacteria?

A) Nitrobacter
B) Pseudomonas
C) Rhizobium
D) Nitrosomonas

54) Which of the following statements is FALSE regarding Angiosperms?

A) Seed is produced by flowering plants and is enclosed within ovary
B) Reproductive system present in flowers
C) Lifecycle of these plants are seasonal
D) Seed is produced by non-flowering plants and are unenclosed or naked

55) DDT is a synthetic insecticide belonging to the family of organic halogen compounds, what does DDT stands for?

A) Dichloro diphenyl tetrachloroethyl
B) Dichloro diphenyl tetrachloroethane
C) Dichloro diphenyl trichloroethane
D) Dichloro diphenyl trichloroethanol

56) UNEP is an agency that coordinates its activities, assisting developing countries in implementing environmentally sound policies and practices. UNEP stands for,

A) United Nations Environment Programme
B) United Nations Environment Practice
C) United Network Environment Programme
D) United Nations Environment Policy

57) The process where ice and snow changes into water vapour without moving through the liquid phase is known as

A) condensation
B) evaporation
C) transpiration
D) sublimation

58) The atmospheric layer above the troposphere is

A) mesosphere
B) exosphere
C) stratosphere
D) thermosphere

59) Which of the following is NOT a natural resource?

A) Water
B) Plastic
C) Wood
D) Air

60) In which form does Therophytes survive during adverse conditions?

A) Spore
B) Rhizome
C) Bulb
D) Seed

61) Chipko movement was launched for the protection of

A) animals
B) forest
C) soil
D) water

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62) The rough endoplasmic reticulum is so named due to presence of which of the following on it?

A) Liposomes
B) Lysosomes
C) Ribosomes
D) Peroxisome

63) How many subunits make a ribosome in Prokaryotes?

A) 2
B) 4
C) 6
D) 1

64) Which of the following invertebrates belongs to the phylum Annelida?

A) Cnidarians
B) Earthworm
C) Flatworm
D) Sponges

65) Which of the following gas protects life on Earth from Sun's ultraviolet radiation?

A) Ozone
B) Nitrogen
C) Carbon dioxide
D) Hydrogen

66) The ATP synthesis in Eukaryotes take place in the inner membrane of the

A) chloroplast
B) nucleus
C) mitochondria
D) vacuole

67) Anthoceros is a bryophyte harbouring which of the following nitrogen fixing blue-green algae in its thallus?

A) Oscillatoria
B) Nostoc
C) Microcystis
D) Spirulina

68) Which of the following igneous rocks contains very low silica content?

A) Granite
B) Rhyolite
C) Silicic
D) Ultramafic

69) Which of the following Fungi are classified as symbiotic depending on their mode of nutrition?

A) Penicillium
B) Lichen
C) Puccinia
D) Taphrina

70) Which of the following statements is FALSE regarding photosynthesis?

A) It is an anabolic process
B) It occurs in the chloroplasts
C) It uses carbon dioxide and water
D) It is a catabolic process

Section 7 - PaperII-Mathematics

71) The number of proper subsets of a set of order three is

A) 8
B) 6
C) 7
D) 4

72) The value of $(1 + \sin2\Theta - \cos2\Theta)/(1 + \sin2\Theta + \cos2\Theta)$ is equal to

A) $\cos\Theta$
B) $\sin\Theta$
C) $\mathrm{cosec}\Theta$
D) $\tan\Theta$

73) If α and β are the roots of $x^2 -2x + 3 = 0$, then the equation with roots $\alpha+2$, $\beta+2$ is

A) $x^2 + 6x - 11 = 0$
B) $x^2 -11x + 6 = 0$
C) $x^2 - 6x + 11 = 0$
D) $x^2 +11x - 6 = 0$

74) If in a triangle ABC, $\angle B$ is 90°, then

A) $\angle A+\angle C < 45°$
B) $\angle A+\angle C = 90°$
C) $\angle A+\angle C > 90°$
D) $\angle A+\angle C = 45°$

75) If the roots of the quadratic equation $x^2 - 5x + 6 = 0$ are 2 and 3, then the equation whose roots are ½ and 1/3 is

A) $6x^2 - 5x + 6 = 0$
B) $6x^2 - 5x + 1 = 0$
C) $x^2 - 5x + 6 = 0$
D) $x^2 + 5x + 1/6 = 0$

76) Three numbers are in the ratio 1:2:3. If their HCF is 13, then the LCM of the three numbers is

A) 91
B) 78
C) 13
D) 39

77) Five years ago, Amrit was thrice as old as Barkha and ten years later, Amrit will be twice as old as Barkha. What is the present age (in years) of Amrit?

A) 50
B) 60
C) 40
D) 20

78) If log 2 = 0.30103, the number of digits in 2^{64} is

A) 21
B) 19
C) 20
D) 18

79) The salaries of A, B and C are in the ratio 2:3:5. If A's salary is increased by 15%, B's salary is decreased by 10% and C's salary is increased by 20%, then the new ratio of their salaries is

A) 22 : 33 : 60
B) 21 : 33 : 60
C) 23 : 27 : 60
D) 23 : 33 : 60

80) The number system which contains only 8 different digits 0, 1, 2, 3, 4, 5, 6 and 7 is called

A) binary system
B) octal system
C) hexadecimal system
D) quinary system

81) If $a^x = b$, $b^y = c$ and $c^z = a$, then the value of xyz is

A) 2
B) 0
C) 1
D) 3

82) The value of 4sin105° is

A) $(\sqrt{3}+1)/(2\sqrt{2})$
B) $\sqrt{2}(\sqrt{3} + 1)$
C) $2\sqrt{6}$
D) $2\sqrt{3}$

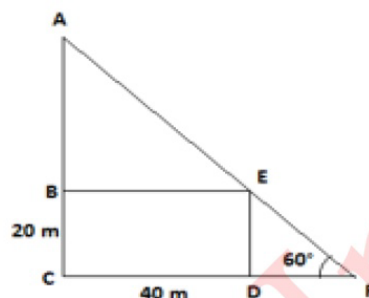83) The least value of $2\sin^2\Theta + 3\cos^2\Theta$ is

A) 2
B) 3
C) 1
D) 0

84) ΔABC and ΔPQR are similar triangles. Area (ΔABC) = 47.6 cm². The base of triangle ΔPQR is 6.72 cm. Each dimension of ΔPQR is 6/5 times the corresponding dimension of ΔABC. What is the height of ΔPQR?

A) 57.12 cm
B) 5.6 cm
C) 20.4 cm
D) 17 cm

85) Logarithm of 'yz' to the base 'x' is equal to

A) (logarithm to the base 'y' of 'x') - (logarithm to the base 'z' of 'x')
B) (logarithm to the base 'x' of 'y') + (logarithm to the base 'x' of 'z')
C) (logarithm to the base 'x' of 'y') - (logarithm to the base 'x' of 'z')
D) (logarithm to the base 'x' of 'y') × (logarithm to the base 'x' of 'z')

86) A cell-phone tower AB is located at the end of the roof of a building (BCDE) of height 20 m and base-width 40 m as given in the diagram. What is the height of the tower?

A) 20(√3 + 1) m
B) 40√3 m
C) 40 m
D) 20(√3 – 1) m

87) The lengths of the three sides in a triangle are 4 cm, 9 cm and 11 cm. The area of the triangle is

A) 12√2 sq. cm
B) 60√26 sq. cm
C) 120√13 sq. cm
D) 60√13 sq. cm

88) What is the number of digits in 4^{5^2} ? [Given that log 2 = 0.3010]

A) 14
B) 15
C) 16
D) 12

89) A relation R on the set of real numbers is defined as xRy ⇔ xy ≥ 0. Then R is

A) reflexive but NOT symmetric.
B) transitive but NOT reflexive.
C) reflexive and symmetric but NOT transitive.
D) symmetric but NOT reflexive.

90) Let N be the set of natural numbers, a relation R defined by aRb if a+b=7 then the relation R on the set N is

A) Reflexive only

B) Symmetric only

C) Equivalence relation

D) Reflexive and symmetric

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Question Paper No:	46993_56

Answer Key

1.	A	31.	C	61.	B
2.	B	32.	B	62.	C
3.	C	33.	A	63.	A
4.	D	34.	B	64.	B
5.	B	35.	A	65.	A
6.	A	36.	B	66.	C
7.	A	37.	B	67.	B
8.	A	38.	A	68.	D
9.	D	39.	B	69.	B
10.	D	40.	C	70.	D
11.	A	41.	A	71.	C
12.	B	42.	B	72.	D
13.	D	43.	C	73.	C
14.	C	44.	D	74.	B
15.	C	45.	A	75.	B
16.	D	46.	D	76.	B
17.	A	47.	C	77.	A
18.	C	48.	B	78.	C
19.	D	49.	A	79.	C
20.	D	50.	D	80.	B
21.	B	51.	A	81.	C
22.	B	52.	C	82.	B
23.	B	53.	B	83.	A
24.	C	54.	D	84.	C
25.	D	55.	C	85.	B
26.	B	56.	A	86.	B
27.	D	57.	D	87.	A
28.	A	58.	C	88.	C
29.	C	59.	B	89.	C
30.	A	60.	D	90.	B