ಉಪನಿರ್ದೇಶಕರ ಕಾರ್ಯಾಲಯ, ಸಾರ್ವಜನಿಕ ಶಿಕ್ಷಣ ಇಲಾಖೆ, ಧಾರವಾಡ. <u>OFFICE OF THE DEPUTY DIRECTOR OF PUBLIC INSTRUCTION, DHARWAD</u> ಬಹು ಆಯ್ಕೆ ಪ್ರಶ್ನೆ ಆಧಾರಿತ ಎಸ್.ಎಸ್.ಎಲ್.ಸಿ. ಪೂರ್ವಸಿದ್ಧತಾ ಪರೀಕ್ಷೆ ಪತ್ರಿಕೆ – 01 Multiple Choice Questions Based Preparatory Examination Paper-1 ಕಲಿಕಾ ಸೇತು/Kalika Setu-3 ವಿಷಯ: ಗಣಿತ + ವಿಜ್ಞಾನ + ಸಮಾಜ ವಿಜ್ಞಾನ

> Subject: Mathematics + Science + Social Science ಮಾಧ್ಯಮ/Medium: English

ಸಮಯ: 3 ಗಂಟೆ.

Time: 3 Hours Total No. of Questions: 40+40+40=120 Max.Marks:40+40+40=120

ಒಟ್ಟು ಪ್ರಶ್ನೆಗಳ ಸಂಖ್ಯೆ: 40+40+40=120 ಗರಿಷ್ಠ ಅಂಕಗಳು: 40+40+40=120

<u> ಗಣಿತ / Mathematics</u>

ಈ ಕೆಳಗಿನ ಪ್ರತಿಯೊಂದು ಪ್ರಶ್ನೆಗಳಿಗೆ/ ಅಪೂರ್ಣ ಹೇಳಿಕೆಗಳಿಗೆ ನಾಲ್ಕು ಆಯ್ಕೆಗಳನ್ನು ನೀಡಲಾಗಿದೆ. ಅವುಗಳಲ್ಲಿ ಸರಿಯಾದ ಉತ್ತರವನ್ನು ಆರಿಸಿ ನಿಮಗೆ ನೀಡಿರುವ ಉತ್ತರ ಪತ್ರಿಕೆ ಓ.ಎಂ.ಆರ್. (O.M.R.) ನಲ್ಲಿ ಸರಿಯಾದ ಆಯ್ಕೆಯನ್ನು ಕಪ್ಪು/ನೀಲಿ ಬಾಲ್ ಪಾಯಿಂಟ್ ಪೆನ್ನುಂದ ಶೇಡ್ ಮಾಡಿರಿ. / Four choices are given for each of the questions/incomplete statements. Choose the correct answer and shade the correct choice in the OMR given to you with blue/black ball point pen. $40 \times 1 = 40$

- 1. The lines joining the equations 2x + 3y 9 = 0 & 4x + 6y 18 = 0 are
 - A. Intersecting lines

- **B.** Perpendicular to each other
- C. Parallel lines 20 D. Coincident lines
- 2. Condition for lines representing the equations $a_1x + b_1y + c_1 = 0$ & $a_2x + b_2y + c_2 = 0$ to be parallel is
 - A. $\frac{a1}{a2} \neq \frac{b1}{b2}$ B. $\frac{a1}{a2} = \frac{b1}{b2}$ C. $\frac{a1}{a2} = \frac{b1}{b2} \neq \frac{c1}{c2}$ D. $\frac{a1}{a2} \neq \frac{b1}{b2} \neq \frac{c1}{c2}$

The pair of equation x = -4 and y = -5 graphically represents lines which are

- **A.** intersecting at (- 5, 4) **B.** intersecting at (- 4, 5)
- **C.** intersecting at (5, 4) **D.** intersecting at (4, 5)

4. To divide a line segment AB in the ratio 3:4, first, a ray AX is drawn so that ∠BAX is an acute angle and then at equal distances points are marked on the ray AX such that the minimum number of these points is:
A. 5
B. 7
C. 9
D. 11

- 5. 25th term of an arithmetic progression is 51 . & first term a=3 common difference
 A. 2
 B. 3
 C. 4
 D. 5
- 6. In an arithmetic progression if $a_n = 4n 5$, then find the second term a_2 of the progression.---

A . 1	В.	2	G .
r 3	П	4	3 D •

- 7. Sum Of First ' n 'Terms Of An AP are-----
 - A. $\frac{n}{2} [a + (n-1)d]$ B. $\frac{n}{2} [2a + (n-1)d]$ C. $\frac{n}{2} [a + (n-1)d]$ D. $\frac{n}{2} [2a + (n+1)d]$

B.

D.

11,13

13,15

- 8 Next two terms if an AP 5,7.9----
 - **A**. 10,11
 - **C**. 13,11
- 9 The value of $\sum 18 + \sum 19$ is
 - A. 351
 B. 361

 C. 531
 D. 631

10. The nature of the roots of the equation $ax^2+bx+c=0$ is decided by

A. b^2 -4ac **B.** b^2 +4ac **C.** $\frac{b^2}{2a}$ **D.** b-4ac

11. The standard form of the equation 2x=5-x² is

 A. 2x-5+x²=0
 B. x²+2x-5=0
 C. x²-2x+5=0
 D. 2x-5-x²=0

12. The roots of the quadratic equation $x^2-x-6=0$ are

13. Formula to find the roots of the quadratic equation $ax^2+bx+c=0$

$A. x = \frac{-b \pm \sqrt{b^2 + 4ac}}{2a}$	В.	$X = \frac{b \pm \sqrt{b^2 + 4ac}}{2a}$
C. $\mathbf{x} = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$	D.	$\mathbf{x} = \frac{-b \pm \sqrt{b^2 - 4ac}}{a}$
14. In given figure, the value of $\angle C$ is		A
A . 90°	В.	60° ^{Men}
C. 30°	D.	45°
15. In figure given ABCD is a rectangle,	the val	ue of CE is
	25	
A . 16	В.	2
C. 3	D.	4 🖏 😵
16 Find the value of A in Sin 2A=Cos(A	-30 ⁰)	12 cm
A. 30 ⁰	В.	45 [°]
C. 60°	D.	40 ⁰
17. The Value Of Cos(90-A) is		
A. sin A	В.	cos A
C. tan A	D.	sec A
18. When the length of shadow of a verti	cal pol	e is equal to $\sqrt{3}$ times of its height,
the angle of elevation of the Sun's alt	itude is	
A. 15 ⁰	В.	30 ⁰

C. 45^o **D**. 60^o

19. The distance between the point P(1, 4) and Q(4, 0) is

A .	3]	B.	4
С.	5	J	D.	$3\sqrt{3}$

20.	The area of the triangle ABC with the	e verti	ces A(-5, 7), B(-4	4, -5) and	l C(4, 5) is
A	. 35	В.	53		
C	. 63	D.	36		
21.	The distance of the point P(2, 3) from	the x	-axis is		
A	. 1	B.	2		5
C	. 3	D.	5		C
22.	The distance of a point P (x,y) from	n the o	rigin	7	6
A	$\sqrt{\chi^2+y^2}$	В.	$\sqrt{X^2-Y^2}$		$\mathcal{D}_{\mathcal{A}}$
C	$\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$	D.	none of these	Ç.	
23	Releation between mean, median & mo	ode	30.		
A	. 3 median=Mode+2mean	В.	median=3Mod	le+2mea	n
C	. 3 median=Mode- 2mean	D.	mean= mode -	+ median	l
24.	10,13,5,15,5,20,5 mode of these	30	2		
A 5	a c	В	10		
C 1	3	D	15	CI	Frequency
25.	Median class of the given table is			0-10	5
A	0-10	В	10-20	20-30	18
C	20-30	D	30-40	30-40	9
	200				
26.	Following which types of triangles ar	e alwa	ays similar		
A	Right angled triangles	В	Equiangular t	riangles	
C	Scalene triangles	D	Isosceles trian	gles	
S					
27.	In the fig DE BC, AD= 2.4cm, BD =	= 7 . 2 c	m , AE = 1.8cm	then leng	gth of AC is
Δ	5.4 cm	В	9.6 cm	/	

 C
 7.2cm
 D
 8cm





C Diameter D Tangent

34. To divide a line segment AB in the ratio 4:7, a ray AX is drawn first such that ∠BAX is an acute angle and then points A₁, A₂, A₃,are located at equal distances on the ray AX and the point B is joined to B $\mathbf{A} \mathbf{A}_{12}$ **A**₁₁ **C** A₁₀ D A۵ A vertical stick of length 6 m casts a shadow 400 cm long on 35. the ground and at the same time a tower casts a shadow 28 m long. The height of the tower is. $\frac{56}{3}m$ A $\frac{6}{\pi}m$ B 6m **C** 42 m 28 mD The shape of an ice-cream cone is a combination of: 36. **A** Sphere+cylinder Sphere+cone B **C** Hemisphere+cylinder D Hemisphere+cone If we cut a cone in two parts by a plane parallel to the base, then the bottom 37. part left over is the Cube **A** Cone B **C** a cylinder D **Frustum of cone** If we change the shape of solid object from a sphere to a cylinder, then the 38. volume of cylinder will be, **A** Increase B Decrease **C** Remains unchanged **Doubles** D **39.** If we join two hemispheres of same radius along their bases, then we get a; **A** A cone frustum of a cone B **C** a cylinder D Sphere -, The shape of a glass (tumbler) (see Fig.) is usually in the form of **40** frustum of a cone A cone A B a cylinder D a sphere

SCIENCE

Four choices are given for each of the questions/incomplete statements. Choose the correct answer and shade the correct choice in the OMR given to you with blue/black ball point pen.

 $40 \times 1 = 40$

- 41. The product formed after the reaction of acid with base is
 - A. Metal Oxide B. Non metal oxide
 - C. Salt **D. Hydrogen ion**
- 42. pH value of a solution is 12. It means that solution contains
 - A. More H^+ ions than OH^- ions
- **B.** Less H^{+} ions than OH^{-} ions
- C. Number of H⁺ & OH⁻ions is equal D. Less Basisity
- 43. Metal oxides are also called as Basic oxides. Because they
 - A. Reacts with water to form salt
 - C. Reacts with both acid and base
- B. Reacts with base to form salt
- D. Reacts with water
- 44. This electronic dot structure represents the following ionic compound



- A. Magnesium chloride **B.** Magnesium bromide C. Magnesium carbonate D. Sodium chloride
- 45. The reducing agent used to extract metal from metal oxide is
 - **B.** Nitrogen A. Oxygen C. Silicon
 - D. Carbon
- 46. The process of applying a protective zinc coating to iron or steel, to prevent rusting is
 - A. Anodization **B.** Galvanization
 - **C.** Ionization **D.** Naturalization
- 47. The organ in this diagram related to the organ system



C. Heat

A. Digestive System

- C. Excretory System
- **B.** Nervous System
- **D.** Reproductive System
- 48. The physical quantity to translocate the substances in phloem tissue
 - A. Velocity
- **B. Speed**
- **D.** Energy

- 49. Reflex action controlling part of the nervous system
 - A. Spinal cordB. BrainC. NeuronD. Nerve
- 50. Movement of plant root towards the Earth
 - A. Thigmotropism B. Geotropism
 - C. Phototropism D. Chemotropism
- 51. lodine required hormone A. Insulin B. Adrenalin
 - C. Testosterone D. Thyroxin
- 52. Conductor without voltage difference A. Allows electric current
 - C. Allows more electric current
- B. Couldn't allow electric current
- D. Allows less amount of electric current
- 53. The unit to measure electric currentA. VoltB. Watt
 - C. Ampere D. Ohm
- 54. What is the amount of electric current that can flow through a conductor with 10Ω resistivity and 110V voltage?
 - A. 110AB. 0.9AC. 1110AD. 11A
- 55. The depending factors of resistance of a conductor are
 A. Area of the conductor
 C. Both A & B
 D. None of the above
- 56. The resultant resistance of a circuit where 10 Ω , 20 Ω , 30 Ω & 40 Ω resistors are connected in series and parallel respectively

Α. 100 Ω & 4.8 Ω	Β. 100 Ω & 4 Ω
C. 100 Ω & 5.8 Ω	D. 5 Ω & 100 Ω

57. The law used to indicate the presence of magnetic lines of force around a current flowing conductor

A. Fleming's right hand rule	B. Fleming's left hand rule		
C. Right hand thumb rule	D. Faraday's law		

- 58. The direction of magnetic lines of force within a bar magnet
 - A. South to North B. North to South
 - C. West to East D. East to West
- 59. The work principle of a device used in electro motive toy car
 - A. Fleming's right hand rule B. Fleming's left hand rule
 - C. Right hand thumb rule D. Faraday's law

- 60. Molecular formula of Ozone A. [O] B. O₂ C. O₃ D. CFC
- 61. The difference between CH₄ & C₃H₈ A. CH₂ B. CH₄
 - C. C₂H₄ D. C₂H₂
- 62. This part of soap molecule reacts with oil/dirt
 - A. Ionic end B. Whole molecule
 - C. Hydrocarbon end D. Ionic & Hydrocarbon end
- 63. The process of combination of chlorine molecule with hydrocarbon in presence of sun light
 - A. Addition Reaction
 - C. Esterification

B. Substitution Reaction D. Emulsification

64. The functional group in this molecular formula



A. Aldehyde B. Alcohol C. Ketone D. Carboxylic group

65. The position of Aluminium in Modern periodic table

	Series	Group	Block	
Α	3	13	р	2
В	2	2	S	\mathbb{D}
С	2	13	p	
D	3	3	S	

- 66. K, Na, H, Mg, Ca when these are written in increasing order of their atomic size/atomic radius
 - A. Ca>K>Mg>Na>H
 - C. H> Na> Mg> K> Ca

B. Ca> Mg> Na> K> H
D. H> Ca> Mg> Na> K

67. Generally male gamete is

A. Small in sizeB. MotileC. Big in sizeD. Both A & B

68. The following statement that is not related to female reproductive system

- A. Initiation of Menstrual cycle B. Development of uterus
- C. Placenta formation D. Sperm Production
- 69. The disc like structure embedded in the uterine wall
 - A. Placenta B. Embryo
 - C. Ovum D. Fallopian tube

70. The ratio of pure tall, impure tall and pure dwarf plants after self pollination of F_1 tall [Tt] plants respectively

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

71. The example of an organism for non genetic sex determination

- A. Snail B. Human
- C. Elephant D. Horse
- 72. Analogous organs
 - A. Similar in structure and function
 - C. Similar in function and differ in structure
- B. Similar in structure and differ in function

D. Similar in appearance

- 73. The speed of light is more in vacuum than air. Because
 - A. The refractive index of vacuum is too less
 - C. The refractive index of vacuum is more
- B. Vacuum has only air particles D. Vacuum has more density
- 201
- 74. The depending factors of Snell's law
 - A. Angle of refraction B. Angle of reflection
 - C. Angle of incidence D. Both A & C
- 75. The nature of an image formed by an Object kept 6 cm behind the convex lens having the focal length 12 cm
 - A. Erect & Real B. Erect & Virtual
 - C. Inverted & Real D. Inverted & Virtual
- 76. The Magnification ratio of a convex lens where image is formed due to an object placed on 2F1

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

- 77. The thing that is not used in Bio Gas plant
 - A. Useless vegetable
- **B.** Residue after harvesting the crops

C. Cow dung

- D. Useless cement remained after building construction
- 78. The element used in Solar cell
 - A. Silicon B. Carbon
 - C. Sodium D. Iron
- 79. A good habit among the following
 - A. Using Fan unnecessarily

D. Useless cement remained after bu

- B. Putting street lights on at day time D. keeping mobile charge over night
- C. Igniting gas stove on after placing the utensil
- 80. Traditional water harvesting structures of Karnataka
 - A. Bandara B. Bundhis
 - C. Katta D. Nadis

Social Science

Four alternatives are given for each of the questions/incomplete statements. Choose the correct answer and shade the correct choice in the OMR provided to you with blue/black ball point pen. $40 \times 1 = 40$

81. The year which Vasco da Gama reached Kappadu of India is

- A) 1497 B) 1498
- C) 1947 D) 1489

82. The First Anglo Sikh war was ended with the treaty of

- A) Multan treaty B) Salbai treaty
- C) Lahore treaty D) Bassein treaty
- 83. Kolkata, Bombay and Madras universities were started through recommendations of
- A) Charles wood Commission B) Mecale Commission
- C) Hunter's Commission D) Jonathan Duncan Commission
- 84. The war started because of Mahe captured by British was
- A) The First Anglo Mysore war B) The Second Anglo Mysore war
- C) The Third Anglo Mysore war D) The Forth Anglo Mysore war
- 85. A great work composed by Dayanand Saraswati is
- A) Satyarth Prakash B) Gulamgiri
- C) Samvad Kaumudi D) Mukanayak
- 86. The immediate cause for 'First War Of Indian Independence' was
- A) soldiers were forced to overseas service B) discrimination in the payment of soldiers
- C) ordered to use the Royal Enfield guns D) insulted the Indian soldiers
- 87. The moderate leader who tabled the 'Drain Theory' was
- A) Gopal Krishna Gokhale B) Surendranath Banerjee
- C) M G Ranade D) Dadabhai Naoroji
- 88. The incident caused for Gandhiji call back the Non Cooperation Movement was
- A) Jallianwala Bagh Massacre B) Chauri Chaura Incident
- C) Khilafat Movement D) Round Table Conference
- 89.Vallabh Bhai Patel was identified as
- A) The first Education Minister of India B) The First Law Minister Of India
- C) The First Prime Minister Of India D) The First Home Minister Of India
- 90. Segregation of the society based on religion is
- A) regionalism B) gender discrimination
- C) communalism D) Linguistics

91.	Not	related	to	panchasheela	princip	les	is
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A) Non Invasion Of Each Other. B) Mutual Cooperation And Respect.

C) Anti Apartheid policy D) Peaceful Coexistence

92. The country that cooperated in the Tashkent Treaty between India and Pakistan in 1966

- A) Russia B) Bangladesh
- C) America D) China

93. The most influential affiliate body called as United Nations Cabinet is

A) General AssemblyB. B) Secretariat

C) Security Council D) International Court Of Justice

94. The fundamental rights are included in the part of constitution is

- A) third B) fourth
- C) fifth D) sixth
- 95. "Education Is Public Property" propagated by
- A) Mahatma Gandhiji B) Jyotiba Phule
- C) Jawaharlal Nehru D) Dr B.R.Ambedkar
- 96. An unorganised sector labour group
- A) agricultural labourers B) doctors
- C) teachers D) soldiers
- 97. The first Railway line was laid between
- A) Madras Arkonam B) Kolkata Raniganj
- C) Mumbai Thane D) Bengaluru Mysuru
- 98. The prominent movement led by Medha Patkar was
- A) Alcohol Prohibition Movement B) Chipko Movement
- C) Narmada Bachao Movement D) Untouchability Prevention Movement

99. 'The child labour is offence' according to the article of the constitution

A) Article 21	B) Article 24
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C) Article 32	D) Article 17
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100. The West Coast is (more) _____ than East Coast.

A) wider B) narrower

C) taller D) noncontinuous

101. The heaviest rainfall area of India is

- A) Ganganagar B) Mawsynram
- C) Dras D) Royli

- **102.** The suitable soil for growing the cotton is
- A) Red soil B) Laterite soil
- C) Black soil D) Mountain soil

103. The forests found in wet marshy arias, in rever deltas are

- A) Shrub Vegetation B) Mountain Forests
- C) Mangrove Forests D) Ever Green Forests

104. The river flows westward and joins the Arabian sea is

- A) the Cauvery B) the Krishna
- C) the Godavari D) the Narmada

105. The agriculture, growing crops and animal husbandry is known as

- A) Compact farming B) Subsistence farming
- C) Mixed farming D) Dry farming

106. The port found in East coast is

- A) Kandla port B) Paradip port
- C) Mormugoa port D) Kochi port

107. The city which is called as 'Silicon valley' of India

- A) Bengaluru B) Mumbai
- C) Kolkata D) Chennai
- 108. The Himalayan earthquake zone is compelled with
- A) maximum intensity zone B) moderate intensity zone
- C) minimum intensity zone D) low intensity zone

109. The total value of all goods and services produced in a country during one year

- A) per capita income **B**) revenue income
- C) national income 💪 💛 D) real national income
- 110. The policy differ from government housing programs is

A) Prime Minister's Aawas Yojana B) Ambedkar Valmiki Aawas Yojana

C) Mahatma Gandhi National Rural

- Employment Guarantee Scheme" D) Ashraya Yojana
- 111. The bank account opened by the businessmen is
- A) savings bank account. B) current account
- C) recurring deposit account D) fixed deposit account

112. Word 'Bank' is derived from the Italian word

- A) Banco B) Banquet
- C) Bank D) Banking

113. Consumer protection act came into force in	
A) 1986	B)1976
C) 1996	D) 1966
114. Originally Amar Sulya rebellion was	
A) labour rebellion	B) farmers rebellion
C) tribal rebellion	D) arms rebellion
115. The leader not belonged to the Radicals group	
A) Lala Lajpat Rai	B) Bal Gangadhar Tilak
C) Bipin Chandra pal	D) Gopal Krishna Gokhale
116. The occasion when Gandhiji gave the ultimatum 'Do or Die'	
A) Quite India Movement B) Non Cooperation Movement	
C) Civil Disobedience Movement D) Opposition To The Simon Commission	
117. The year when the Vishal Mysore state came into being	
A) 1st November 1971	B) 1st November 1956
C) 1st November 1973	D) 1st November 1953
118. The city called as 'Manchester of India' is	
A) Chennai	B) Bengaluru
C) Mumbai	D) Davanagere
119. The person who provides goods and services based on money	
A) supplier	B) user
C) producer	D) consumer

120. Constitutional amendment introduced the uniformed Panchayat Raj institutions all over the country

A) 72nd amendment in 1993 B) 73rd amendment in 1993

C) 72nd amendment in 1992 D) 73rd amendment in 1992