

**SRI GURU GOBIND SINGH SR. SEC. SCHOOL**  
**POST: TGT ( Science Medical)**  
**Question Booklet & Answer Key**  
**19.08.2023 (MORNING)**

1. 'ज्येष्ठ' का विलोम क्या है?  
A) कनिष्ठ                      B) अवर                      C) अग्रज                      D) प्रवर
2. 'जंगल में लगने वाली आग' वाक्यांश का एक शब्द बताएँ:  
A) जठरानल                      B) बड़वानल                      C) कामानल                      D) दावानल
3. 'दिक् + गज' की संधि है:  
A) दिकगज                      B) दिग्गज                      C) दिगज                      D) इनमें से कोई नहीं
4. निम्न में से संयुक्त वाक्य का चयन कीजिए:  
A) जो परिश्रम करता है, वही आगे बढ़ता है                      B) मैं पढ़ता हूँ और वह गाता है  
C) क्या मेरे बिना वह पढ़ नहीं सकता है                      D) परिश्रमी व्यक्ति ही सफलता प्राप्त करता है
5. जिन शब्दों की उत्पत्ति का पता नहीं चलता, उन्हें कहा जाता है:  
A) तत्सम                      B) तद्भव                      C) देशज                      D) संकर
6. 'सुन्दर' की भाववाचक संज्ञा है:  
A) सुन्दरता                      B) सौन्दर्य                      C) केवल 'A'                      D) 'A' व 'B' दोनों
7. 'सभा' शब्द का प्रयोग किस संज्ञा के अन्तर्गत आता है?  
A) व्यक्तिवाचक                      B) जातिवाचक                      C) भाववाचक                      D) द्रव्यवाचक
8. पुल्लिंग-स्त्रीलिंग के युग्म में से कौन सा युग्म सही नहीं है:  
A) बालक - बालिका                      B) मिहतर - मिहतरी                      C) गूँगा - गूँगी                      D) नर - नारी
9. सही सन्धि - विच्छेद का चयन कीजिए:  
A) महा + ऊदय                      B) महा + उदय                      C) महो+ दय                      D) महा+ ओदय
10. 'कलम तोड़ देना' मुहावरे का सही अर्थ है:  
A) लिखना - पढ़ना त्याग देना                      B) अत्यन्त क्रोधित होना  
C) अत्यन्त मार्मिक व प्रभावशाली रचना करना                      D) लिखने से घृणा करना

**Directions (Q. 11-12) : Choose the correct opposite word out of the four options:**

11. Jejune  
A) Sophisticated                      B) Arrogant                      C) Delightful                      D) Indifferent
12. Jeopardy  
A) Validity                      B) Piety                      C) Safety                      D) Tactfulness

**Directions (Q. 13-14): Choose the correct synonyms of the following words out of the four given options:**

13. Improvised  
A) Imprudent                      B) Unstudied                      C) Incautious                      D) Oblivious
14. Maverick  
A) Materialist                      B) Spiritualist                      C) Selfish                      D) Nonconformist

**Directions (Q. 15 -16): Mark out of the four given choices, the correct meaning of the italicized idioms/ phrases:**

15. *A fly on the wheel*  
A) a person who overestimates her/his importance                      B) a person who cautions the people  
C) a person who is hostile to all                      D) a person who entertains others
16. *To be under the harrow*  
A) to work hard                      B) to be awarded for honesty  
C) to be in distress                      D) to be in good health

**Directions (Q. 17 - 18): Choose the correct preposition, out of four options, to be filled in the blanks of the following sentences:**

17. His speech was appropriate \_\_\_\_\_ the occasion.  
A) upon                      B) to                      C) about                      D) for
18. Radhika's aptitude \_\_\_\_\_ business cannot be doubted.  
A) to                      B) about                      C) at                      D) for

**Directions (Q. 19 - 20) : Choose the correct form of the following words as the given part of the speech out of given options:**

19. Down as noun:  
 A) Down went the "Titanic".  
 C) The porter was killed by the down train.
- B) Shyam has seen the ups and downs of life.  
 D) The engine came rushing down the hill.
20. But as adverb:  
 A) It is but right to admit our faults.  
 C) None but the brave deserve the honour.
- B) We tried hard but did not succeed.  
 D) There is no one but likes him.
21. Who was the first women Governer of India?  
 A) Sarojini Naidu  
 C) Suchitra Kriplani
- B) Annie Besant  
 D) Vijay Laxmi Pandit
22. India's rank in World Competitiveness Index 2022 is:-  
 A) 59<sup>th</sup>  
 B) 47<sup>th</sup>  
 C) 43<sup>rd</sup>  
 D) 37<sup>th</sup>
23. Which one of the following clouds is a rain-bearing cloud?  
 A) Cumulus Cloud  
 B) Stratus Cloud  
 C) Cirrus Cloud  
 D) Nimbus Cloud
24. Section 498 A of Indian Penal Code deals with  
 A) Harassment for dowry  
 C) Kidnap & Rape
- B) Property rights to women  
 D) Reservation for women
25. Which of the following is the First Indian Women to win Olympic medal  
 A) P.T. Usha  
 B) P. V. Sindhu  
 C) Karnam Malleswari  
 D) Mary Kom
26. Identify the correct sequence of priority in the system of education?  
 i) Student  
 ii) Teaching method  
 iii) Aims of Education  
 iv) Teacher  
 v) Teaching learning material
- A) i, ii, iii, iv, v  
 B) iv, i, ii, iii, v  
 C) iii, i, iv, v, ii  
 D) v, iv, iii, ii, i
27. Match the following methods of teaching with their meaning.

List I	List II
1. Oral presentation of information, principles, concepts, ideas about a topic	a) Brainstorming
2. Sharing experiences, ideas and attitudes	b) Project
3. Generating as many ideas without judging them	c) Lecture
4. A whole-hearted purposeful activity proceeding in a social environment	d) Collaboration
	e) Discussion

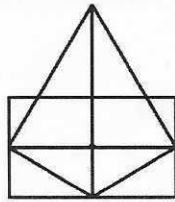
- A) 1a, 2b, 3c, 4d  
 B) 3a, 5b, 1c, 2d  
 C) 5a, 4b, 3c, 2d  
 D) 3a, 4b, 1c, 2d
28. Good teaching is best reflected by:  
 A) Attendance of students  
 C) Meaningful question asked by students
- B) Number of distinctions  
 D) Pin- drop silence in the class
29. The most important indicator of quality of education in an educational institute is:-  
 A) Infrastructural facilities of a school  
 C) Textbook and teaching- learning material
- B) Student achievement level  
 D) Classroom system
30. 'Spare the rod and spoil the child'- this assumption is related to the type of discipline which has been advocated:-  
 A) By naturalist philosophy  
 C) By pragmatist philosophy
- B) In Victorian Era  
 D) In Democratic Era



43. Eleven students A, B, C, D, E, F, G, H, I, J and K are sitting in row of the class facing the teacher. D who is to the immediate left of F, is second to the right of C. A, is second to the right of E, who is at one of the ends. J is the immediate neighbour of A and B and third to the left of G. H is to the immediate left of D and third to the right of I. Which of the following statements is true in the above sitting arrangement?
- A) There are three students sitting between D and G.  
 B) K is sitting between A and J.  
 C) B is sitting between J and I.  
 D) G and C are neighbours sitting to the immediate right of H.

44. Rajat is fifteenth from the front in a column of boys. There were thrice as many behind him as there were in front. How many boys are there between Rajat and the seventh boy from the end of the column
- A) 33                                      B) 34                                      C) 35                                      D) Data inadequate

45. Find the number of triangles in the given figure:



- A) 11                                      B) 13                                      C) 15                                      D) 17

46. Which of the following statement(s) is/are true with regard to word processing software?  
 P: Word Art is set of images provided by Microsoft office, which can be used in the document.  
 Q: Clip Art is stylish text styles provided by Microsoft office.
- A) P only                                      B) Q only                                      C) Both P and Q                                      D) Neither P nor Q

47. The value of the cell containing the formula =SUMIF(A1:A6, ">50", B1:B6) in the following Excel worksheet is:

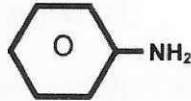
	A	B	C
1	45	35	
2	30	85	
3	75	10	
4	15	55	
5	25	20	
6	65	15	
7			

- A) 45                                      B) 195                                      C) 25                                      D) 210

48. Microsoft Office PowerPoint comes with several categories of built-in transition effects. Which of the following is not a type of transition effect supported by Microsoft PowerPoint?
- A) Subtle                                      B) Speed                                      C) Exciting                                      D) Dynamic content

49. In Windows Operating System, Disk Defragmenter utility:
- A) Regroups fragmented sectors on a hard drive.  
 B) Regroups pieces of files together on a hard drive.  
 C) Compresses fragmented files.  
 D) Both A) and C)

50. Which of the following lists memory types from highest to lowest speed?
- A) secondary storage, main memory, L2 cache, registers  
 B) registers, L1 cache, secondary storage, main memory  
 C) registers, L2 cache, main memory, secondary storage  
 D) L1 cache, registers, main memory, secondary storage

51. Which of the following Compounds exhibit geometrical isomerism?  
 A) 1-Pentene    B) 2- Methyl -2- pentene    C) 2-Pentene    D) 2- Methyl -2- butene
52. Propene reacts with HBr in the presence of peroxide to give:  
 A) n-Propyl bromide    B) Allyl bromide    C) Isopropyl bromide    D) Vinyl bromide
53. Which of the following compounds on treatment with  $\text{NaHCO}_3$  will liberate  $\text{CO}_2$ ?  
 A) Acetic acid    B) Ethylamine    C) Acetone    D) Ethyl alcohol
54. Which of the following is most basic?  
 A)  $\text{CH}_3\text{NH}_2$     B)  $(\text{CH}_3)_3\text{N}$     C)  $(\text{CH}_3)_2\text{NH}$     D) 
55. Natural rubber is a polymer of:  
 A) Propene    B) Isoprene    C) Formaldehyde    D) Phenol
56. LPG (Household cooking gas) is mainly a mixture of:  
 A) Methane + Ethane    B) Acetylene +  $\text{O}_2$     C) Butane + Isobutene    D) Acetylene +  $\text{H}_2$
57. The bond order of  $\text{O}_2$  is:  
 A) Zero    B) 2    C) 1    D) 3
58. The structure of  $\text{XeF}_4$  is:  
 A) Square planar    B) Tetrahedral    C) Square pyramidal    D) Octahedral
59. For corrosion of iron to take place:  
 A) Presence of moisture is sufficient    B) Presence of moisture and oxygen is essential  
 C) Hydrogen is required    D) A strong acid is necessary
60. In which of the following compounds, the oxidation state of Xenon is **not** six?  
 A)  $\text{XeOF}_2$  and  $\text{XeO}_4$     B)  $\text{XeF}_6$  and  $\text{XeO}_3$   
 C)  $\text{XeOF}_4$  and  $\text{XeO}_2\text{F}_2$     D)  $\text{XeO}_3$  and  $\text{XeOF}_4$
61. Increasing concentration of  $\text{CO}_2$  in atmosphere is responsible for:  
 A) Acid rain    B) Green house effect  
 C) Lack of Photosynthesis    D) Death of aquatic plants
62. The number of atoms per unit cell of a simple Cubic cell is:  
 A) 1    B) 2    C) 4    D) none
63. The colloidal solution of a solid as the dispersed phase and a gas as the dispersion medium is called:  
 A) Sol    B) Aerosol    C) Solid foam    D) Gel
64. If water kept in an insulated vessel at  $-10^\circ\text{C}$  suddenly freezes, the entropy change of the system \_\_\_\_\_.  
 A) Increases    B) Is equal to the surroundings    C) Decreases    D) Is zero
65. Among the following pHs which solution contains a weak acid :  
 A) 1.72    B) 2.0    C) 3.7    D) 6.27
66. The lowest boiling point of helium among all known elements is due to:  
 A) Inertness    B) Gaseous state  
 C) High polarizability    D) Weak Van der Waals forces between atoms

67. Specific conductance is the conductance of a solution of volume :  
 A)  $1 \text{ cm}^3$                       B)  $10 \text{ cm}^3$                       C)  $100 \text{ cm}^3$                       D)  $1000 \text{ cm}^3$
68. During the process of gene amplification using PCR, if a very high temperature is not maintained in the beginning, then which of the following steps of PCR is affected?  
 A) Denaturation                      B) Ligation                      C) Annealing                      D) Extension
69. Which of the following organisms bears hollow and pneumatic long bones?  
 A) Macropus                      B) Ornithorhynchus                      C) Neophron                      D) Hemidactylus
70. Which of the following is not required for the synthesis of protein?  
 A) rRNA                      B) siRNA                      C) mRNA                      D) tRNA
71. Which meiotic prophase stage shows chiasmata terminalisation as its distinctive feature?  
 A) Diakinesis                      B) Pachytene                      C) Leptotene                      D) Zygotene

72. Match list I with list II with respect to the human eye

List I	List II
a) Fovea	I. Visible coloured portion of the eye that regulates the diameter of the pupil
b) Iris	II. An external layer of the eye formed of dense connective tissue
c) Blind spot	III. Point of greatest visual acuity or resolution
d) Sclera	IV. Point where optic nerve leaves the eyeball and photoreceptor cells are absent

Choose the correct answer from the options given below:

- A) a)-IV, b)-III, c)-II, d)-I                      B) a)-I, b)-IV, c)-III, d)-II  
 C) a)-II, b)-I, c)-III, d)-IV                      D) a)-III, b)-I, c)-IV, d)-II
73. Which one of the following common sexually transmitted diseases is completely curable when detected early and treated properly?  
 A) Gonorrhoea                      B) Hepatitis-B                      C) HIV infection                      D) Genital herpes
74. Which of the following statements is correct?  
 A) Biomagnification refers to an increase in the concentration of toxicants like mercury at successive trophic levels  
 B) Presence of a large number of nutrients in water restricts Algal bloom  
 C) Algal bloom decreases fish mortality  
 D) Eutrophication decreases with the entry of domestic sewage in lakes
75. Evolution by \_\_\_\_\_ in a true sense would have started when cellular forms of life with differences in metabolic capability originated on earth  
 A) Mutation                      B) Genetic drift                      C) Natural selection                      D) Species creation
76. Expressed Sequence Tags (EST) refer to  
 A) Genes expressed as RNA                      B) Polypeptide expression  
 C) DNA polymorphism                      D) Novel DNA sequence
77. Respiratory quotient (RQ) value of tripalmitin is  
 A) 0.9                      B) 0.7                      C) 0.007                      D) 0.009
78. In a species, the weight of newborn ranges from 2 to 5 kg. 97% of the newborn with an average weight between 3 to 3.3 kg survive whereas 99% of the infants born with weight from 2 to 2.5 or 4.5 to 5 kg die. Which type of selection process is taking place?  
 A) directional selection                      B) stabilizing selection  
 C) disruptive selection                      D) cyclical selection

79. Identify the correct pair representing the causative agent of typhoid fever and the confirmatory test for typhoid:
- A) Plasmodium vivax / UTI test  
 B) Steptococcus pneumonia / Widal test  
 C) Salmonella typhi / Widal test  
 D) Salmonella typhi / Anthrone test
80. A dehydration reaction links two glucose molecules to produce maltose. If the formula of glucose is  $C_6H_{12}O_6$ , then what is the formula of maltose?
- A)  $C_{12}H_{20}O_{10}$   
 B)  $C_{12}H_{24}O_{12}$   
 C)  $C_{12}H_{22}O_{11}$   
 D)  $C_{12}H_{24}O_{11}$
81. FSH
- A) Acts on Sertoli cells and inhibits the secretion of some factors that help in spermiogenesis  
 B) Acts on Sertoli cells and stimulates the secretion of some factors that help in spermiogenesis  
 C) Acts on Leydig cells and stimulates the secretion of some factors that help in spermiogenesis  
 D) Acts on Leydig cells and inhibits the secretion of some factors that help in spermiogenesis
82. Lippie's loop is a type of contraceptive used as
- A) Cervical barrier  
 B) Vault barrier  
 C) Non-medicated IUD  
 D) Copper releasing IUD
83. Hormones secreted by the placenta to maintain pregnancy are
- A) hCG, hPL, progesterone, estrogen  
 B) hCG, hPL, estrogens, relaxin, oxytocin  
 C) hCG, hPL, progesterone, prolactin  
 D) hCG, progesterone, estrogen, glucocorticoids
84. All of the following are included in 'ex-situ conservation' except
- A) Botanical Gardens  
 B) Sacred Groves  
 C) Wildlife Safari Parks  
 D) Seed Banks
85. The X-shaped structures called chiasmata are visible during
- A) Diplotene  
 B) Leptotene  
 C) Pachytene  
 D) Zygotene
86. Association of fungi with the roots of higher plants is known as
- A) Corallorhiza  
 B) Lichen  
 C) Mycoplasma  
 D) Mycorrhiza
87. Permanent tissues having many different types of cells are
- A) Collenchyma  
 B) Complex tissues  
 C) Sclerenchyma  
 D) Simple tissues
88. Presence of vessels is a characteristic feature of
- A) Angiosperms  
 B) Bryophytes  
 C) Gymnosperms  
 D) Pteridophytes
89. A typical angiosperm embryo sac at maturity is \_\_\_\_\_
- A) 6-celled  
 B) 7-celled  
 C) 8-celled  
 D) 9-celled
90. In which of the following plants, dioecy occurs?
- A) Banana  
 B) Maize  
 C) Mango  
 D) Papaya
91. Loss of water from the leaves of plants in liquid phase is
- A) Diffusion  
 B) Evaporation  
 C) Guttation  
 D) Transpiration
92. The inheritance of flower color in dog flower (*Antirrhinum majus*) is an example of \_\_\_\_\_.
- A) Co-dominance  
 B) Incomplete dominance  
 C) Maternal inheritance  
 D) True dominance



93. DNA replication in the cell cycle occurs in  
A) G<sub>1</sub> Phase                      B) G<sub>2</sub> Phase                      C) Metaphase                      D) S Phase
94. Epidermal hairs on the plant stem are known as  
A) Prickles                      B) Spines                      C) Thorns                      D) Trichomes
95. Which of the following exhibits whorled phyllotaxy?  
A) Alstonia                      B) Australian acacia                      C) Calotropis                      D) Guava
96. Chemical substances like nicotine, caffeine, quinine, strychnine and opium are produced by plants as \_\_\_\_\_  
A) Commercial item                      B) Defence                      C) Food item                      D) Medicine
97. Which of the following is an example of drupe type of fruit?  
A) Apple                      B) Banana                      C) Coconut                      D) Guava
98. Tapetum is the \_\_\_\_\_ layer of the microsporangium.  
A) Innermost                      B) Outermost                      C) Second                      D) Third
99. There is a net gain of \_\_\_\_\_ ATP during fermentation of one molecule of glucose.  
A) One                      B) Two                      C) Three                      D) Four
100. \_\_\_\_\_ promote bolting in beet, cabbages and many plants with rosette habit.  
A) Abscisic acid                      B) Auxins                      C) Cytokinins                      D) Gibberellins

\*\*\*

**SRI GURU GOBIND SINGH SR. SEC. SCHOOL**  
**19-08-2023 Answer key- Science Medical**

Q.No.	Ans	Q.No.	Ans	Q.No.	Ans	Q.No.	Ans
1	A	26	C	51	C	76	A
2	D	27	B	52	A	77	B
3	B	28	C	53	A	78	B
4	B	29	B	54	C	79	C
5	C	30	B	55	B	80	C
6	D	31	D	56	C	81	B
7	B	32	C	57	B	82	C
8	B	33	C	58	A	83	A
9	B	34	B	59	B	84	B
10	C	35	C	60	A	85	A
11	A	36	C	61	B	86	D
12	C	37	B	62	A	87	B
13	B	38	C	63	B	88	A
14	D	39	D	64	C	89	B
15	A	40	B	65	D	90	D
16	C	41	D	66	D	91	C
17	B	42	C	67	A	92	B
18	D	43	C	68	A	93	D
19	B	44	C	69	C	94	D
20	A	45	C	70	B	95	A
21	A	46	D	71	A	96	B
22	D	47	C	72	D	97	C
23	D	48	B	73	A	98	A
24	A	49	B	74	A	99	B
25	C	50	C	75	C	100	D