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**JKSSB**

**Previous Year Paper**

**Accounts Assistant**

**2014**

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800527

## ACCOUNTS ASSISTANT--2-0-14

TIME ALLOWED: 3 HOURS

..... Viuokfet contains 24 pages

Do not spell this booklet IIIif you are asked by the invigilator.

### Instructions to be followed:

1. Immediately after opening the test booklet, ensure that it contains the number of pages as depicted above and 180 questions. In case of any discrepancy, get the question booklet replaced.
2. Use only blue/black pen for writing your particulars like roll number and question booklet number, name, Date of test and post applied for on the OMR answer sheet at spaces provided.
3. Use only blue/black pen for writing your responses on the OMR answer sheet.
4. Do not write anything else on OMR answer sheet. For rough work use the spaces provided on question paper booklet.
5. Erasing, cutting or overwriting on OMR sheet will be deemed as incorrect answer and shall result in zero marking.
6. The test booklet number as written on question booklet should be written on OMR answer sheet. OMR answer sheets without booklet number will not be evaluated.
7. The candidates should on demand show their admit cards to invigilators or any other authorized representative of SKUAST-K.
8. No candidate will be allowed to leave the examination hall before half time except under special circumstances and permission by Center Superintendent.
9. The candidates shall hand over the OMR answer sheet to invigilator.
10. Use of electronic gadgets such as calculators, mobiles and pagers etc is not allowed in the Hon. hall.
11. The cases pertaining to the use of unfair means will be governed by the rules and regulations of SKUAST-K.
12. Any act of indiscipline/misconduct/ use of unfair means shall result in forfeiture of candidate's right to sit in the examination. The decision of Center Superintendent in this regard shall be final.

Name: \_\_\_\_\_

Roll No.: \_\_\_\_\_

OMR answer sheet No.: \_\_\_\_\_

Examination Center: \_\_\_\_\_

Candidates signature: \_\_\_\_\_

Invigilators signature: \_\_\_\_\_



1	Doctor : Patient is same as Politician : _____			
	(a) Masses	(b) Voter		
	(c) Power	(d) Chair		
2	Next Olympics will be held in 2016 in which of country:-			
	(a) USA	(b) Japan		
	(c) Brazil (Rio, De Janeiro)	(d) China		
3	The Reserve Bank of India (RBI) has recently decided to withdraw from circulation all currency notes issued prior to year:-			
	(a) 2003	(b) 2004		
	(c) 2005	(d) 2006		
4	AUC stands for:-			
	(a) Audited Utilization Certificate	(b) Amount Use Certificate		
	(c) Accounted Utilization Certificate	(d) None of the above		
5	Who among the following has recently won Australian open men's singles title 2014:-			
	(a) Rafael Nadal	(b) Roger Federer		
	(c) Stanislas Wawrinka	(d) Novak Djokovic		
6	In a certain code language 'INDIA' is written as 'KQFLC'. How will 'JAPAN' be written in that code:-			
	(a) LDRDP	(b) LDSDP		
	(c) LERDP	(d) LDREP		
7	Improve the Sentence "She asked him that <u>why</u> he was unwilling to go with her":-			
	(a) Why he was	(b) Why that he was		
	(c) Why was he	(d) That why he had been		
8	If SHARP is coded as 58034 and PUSH as 4658, how will RUSH be coded:-			
	(a) 3785	(b) 3568		
	(c) 3736	(d) 3658		
9	The new year festival Losar is celebrated in:-			
	(a) Jammu	(b) Poonch		
	(c) Ladakh (3 days)	(d) All of above		

~~100% correct~~  
P S 2 R A

10	Improve the sentence "The stolen box was found laying under the banyan tree":-			
	(a) Had found laying (c) Was found lying	(b) Had been finding lying (d) No correction required		
11	In row of boys, A is 15th from the left and B is 4th from the right. There are 3 boys between A and B. C is just left of A. What is C's position from the right:-			
	(a) 9th (c) 12th	(b) 10th (d) 13th		
12	A, P, R, X, S and Z are sitting in a row. S and Z are in the center. A and P are at the ends. R is sitting to the left of A. Who is to the right of P:-			
	(a) A (c) S	(b) X (d) Z		
13	On a certain sum of money, the SI for 2 years is ₹ 200 at the rate 7% Per Annum. Find the difference in Compound Interest and Simple Interest:-			
	(a) ₹ 7 (c) ₹ 11	(b) ₹ 9 (d) ₹ 15		
14	Improve the sentence: "The ladder will be collapse if you push the wall with both the hands":-			
	(a) will collapsed (c) should collapse	(b) will have collapsed (d) will collapse		
15	A cylindrical tank of diameter 35cm is full of water. If 11 liters of water is drawn off, find how much water level in the tank will drop:-			
	(a) $11\frac{3}{7}$ cm. (c) $13\frac{3}{7}$ cm.	(b) $12\frac{3}{7}$ cm. (d) $11\frac{3}{5}$ cm.		
16	Opposite of AUTONOMY:-			
	(a) Submissiveness (c) Subordination	(b) Dependence (d) Slavery		
17	Indus water treaty was signed on:-			
	(a) 19 <sup>th</sup> September, 1960 (c) 10 <sup>th</sup> November, 1962	(b) 25 <sup>th</sup> December, 1960 (d) 19 <sup>th</sup> September, 1965		

18	Opposite of KINDLE:- (a) Ignite (b) Encourage (c) Ignore (d) <u>Extinguish</u>			
19	The quantity of water that should be added to reduce 9ml lotion containing 40% alcohol to a lotion containing 30% alcohol, is:- (a) 3ml (b) 4ml (c) 5ml (d) 6ml			
20	Complete the sequence:- ABC, DGK, HMS, MTB, SBL, ____: (a) ZKU (b) ZKW (c) ZAB (d) XKW			
21	Complete the sequence:- 5, 2, 7, 9, 16, 25, ____: (a) 41 (b) 45 (c) 48 (d) 52			
22	Opposite of TRAGEDY is:- (a) Humorous (b) <u>Comedy</u> (c) Romance (d) Calamity			
23	A and B starts from a point in opposite directions. A travels 3km and B also travels 3km. Then, A turns towards right and travels 4km and B turns towards right and travels 4km. What is the distance between A and B is:- (a) 8 km (b) 10 km (c) 12 km (d) 14 km			
24	A certain number of men can do a work in 40 days. If there were men 5 less it could be finished in 20 days more. How many men are there:- (a) 20 men. (b) 25 men. (c) 24 men. (d) 18 men.			
25	In a class of 90, where girls are twice that of boys, Kamal ranked 17th from the top. If there are 9 girls ahead of Kamal, how many boys are after him in rank:- (a) 20 (b) 21 (c) 22 (d) 23			
26	Alternative of PIVOTAL is:- (a) Movable (b) Crucial (c) Internal (d) Mechanical			

27	What is the estimated potential of hydropower in J&K state:- (a) 10000MW (b) 15000MW (c) 20000MW (d) 2000MW		
28	If 'when' means $\times$ , 'you' means $\div$ , 'come' means $-$ and 'will' means $+$ , then what will be the value of "8 when 12 will 16 you 2 come 10" :- (a) 45 (b) 94 (c) 96 (d) 112		
29	Jayesh is twice as old as Vijay and half as old as Suresh. If the sum of Suresh's and Vijay's ages is 85 yrs, what is Jayesh's age:- (a) 34 yrs. (b) 36 yrs. (c) 68 yrs. (d) 45 yrs.		
30	'Braille' is related to 'Blindness' in the same way as 'Sign language' is related to:- (a) Exceptional (b) Touch (c) Deafness (d) None of these		
31	$\frac{1}{3} + \frac{1}{15} + \frac{1}{35} + \frac{1}{63} + \frac{1}{99} = \dots$ (a) $\frac{10}{11}$ (b) $\frac{5}{11}$ (c) $\frac{9}{11}$ (d) $\frac{7}{11}$		
32	If bananas are bought @ of 30 for a rupee, how many must be sold for a rupee so as to gain 20% profit:- (a) 24 (b) 25 (c) 28 (d) None of these		
33	'Boat' is related to 'Oar' in the same way as 'Bicycle' is related to:- (a) Road (b) Wheel (c) Seat (d) Paddle		
34	During drafting stage Article 370 was known as:- (a) Art. 310 (b) Art. 317A (c) Art. 306 A (d) Art. 125		

35	The alternative of EXORBITANT is:-		
	(a) Odd	(b) Ridiculous	<del>2h 2 up 3h 2 up</del>
	(c) Excessive	(d) Threatening	
36	A bag contains one rupee, 50 paise and 25 paise coins whose values are in the proportion of $2 : 3 : 4$ . If the total number of coins are 480, find the total amount in rupees:-		
	(a) ₹160	(b) ₹200	$2 : 3 : 7$
	(c) ₹180	(d) ₹190	$x + \frac{1}{2}y + \frac{1}{4}z$
37	Who is the president of J&K Sports council:-		
	(a) Chief Minister	(b) Sports Minister	<del>105</del>
	(c) Governor	(d) None of the Above	<del>945</del>
38	A man buys two articles for ₹1750. He sells one at $10\%$ loss and another at $15\%$ profit. On the whole he neither losses nor gains. What is the cost price of each item:-		
	(a) 1000 & 750	(b) 1050 & 700	$x + \frac{1}{2}x + \frac{1}{4}y$
	(c) 950 & 800	(d) 1150 & 600	$x + 8 = 1750$
39	Mehrajudin Wadoo is associated with which sport:-		
	(a) Cricket	(b) Hockey	<del>100</del>
	(c) Football	(d) Chess	<del>900</del>
40	A wheel makes 1000 revolutions in covering a distance of 88km. The diameter of the wheel is :-		
	(a) 24m	(b) 40m	$360 \times 9$
	(c) 28m	(d) 14m	$360 \times 9$
41	In the constitution of J&K, under which article, J&K is declared as a part of territory of India:-		
	(a) Art. 5	(b) Art. 370	$100 = 44$
	(c) Art. 1	(d) Art. 20	$22 \times 44$
42	Which amendment of J&K constitution provided for substitution of Sadre Riyasat by Governor:-		
	(a) 3 <sup>rd</sup>	(b) 4 <sup>th</sup>	$8 = 14$
	(c) 5 <sup>th</sup>	(d) 6 <sup>th</sup>	$100 = 1$

43	A solid cylinder of 16cm diameter and 2cm height is melted and made 12 equal same size spheres. Find the diameter of sphere:-		
	(a) 4cm	(b) 4.5cm.	$\text{PO}^2 \pi r^2 \cdot \frac{4}{3} \pi R^3$
	(c) 3cm.	(d) 5cm.	$\frac{4}{3} \pi r^3$
44	J&K RTI Act came into force on:-		
	(a) 15 <sup>th</sup> June, 2009	(b) 20 <sup>th</sup> March, 2009.	$\pi r^2 h$
	(c) 15 <sup>th</sup> August, 2009	(d) 23 <sup>rd</sup> May, 2009	$\pi r^2 h$
45	The income of A & B are in ratio of 4 : 3 and their expenditures are in the ratio of 3 : 2. If each saves ₹2500 the what are difference between their expenditures:-		
	(a) ₹3000	(b) ₹2500	$\frac{4}{3} \pi r^3$
	(c) ₹5000	(d) ₹3500	$\frac{4}{3} \pi r^3$
46	Which of the following Kashmiri was Comptroller & Auditor General of India:-		
	(a) Sanjay Kak	(b) V N Kaul	$\frac{4}{3} \pi r^3$
	(c) N C Vij	(d) None of the above	$\frac{4}{3} \pi r^3$
47	A train 270 meter long is moving at a speed of 25km/hr. It will cross a man coming from the opposite direction at a speed of 2km/hr in:-		
	(a) 36 sec.	(b) 32 sec.	$12$
	(c) 28 sec.	(d) 24 sec.	$12$
48	Tulip Garden in Srinagar is named after:-		
	(a) Rajiv Gandhi	(b) Indira Gandhi	$12$
	(c) Jawahar Lal Nehru	(d) Sheikh Mohamad Abdullah	$12$
49	The minute hand of a wall-clock is 14cm. find the area swept by the minute hand in 15 minutes:-		
	(a) $154 \text{ cm}^2$	(b) $150 \text{ cm}^2$	$14 \text{ cm}$
	(c) $155 \text{ cm}^2$	(d) $165 \text{ cm}^2$	$14 \text{ cm}$
50	Kohi Maran was built by which ruler:-		
	(a) Akbar	(b) Atta Mohammad Khan	$10$
	(c) Jehangir	(d) Yusuf Shah Chak	$10$

		<del>16 x 16</del>	96
51	The speeds of two trains are in the ratio 6 : 7. If the second train runs 364 km in 4 hrs, then the speed of the first train is:-	<del>196</del>	<del>60</del>
	(a) 60 km/hr (c) 78 km/hr	(b) 72 km/hr (d) 84 km/hr	<del>60 x 7</del> <del>12, 14</del> <del>14</del>
52	Simla agreement was signed in 1972 between India and Pakistan by:-	<del>196</del>	<del>97</del>
	(a) Indira Gandhi & Z A Bhutto (c) Rajiv Gandhi & Ziaul Haq	(b) Lal Bahadur Shastri & Ayub Khan (d) none of the above	<del>97</del>
53	If $a + b + c = 9$ and $ab + bc + ca = 40$ then $a^2 + b^2 + c^2 =$	<del>196</del>	<del>96 x 6</del> $(a + b + c)^2 = a^2 + b^2 + c^2 + 2(ab + bc + ca)$ $81 - 40 = a^2 + b^2 + c^2 + 2(40)$ $41 = a^2 + b^2 + c^2 + 80$ $a^2 + b^2 + c^2 = 41 - 80$ $a^2 + b^2 + c^2 = -39$
	(a) 1 (c) -1	(b) 2 (d) -2	<del>21</del>
54	Which of the following rivers originates from Mansarovar lake:-	<del>196</del>	<del>94</del>
	(a) Chenab (c) Indus	(b) Jhelum (d) Ravi	<del>94</del>
55	A shopkeeper sells 25 articles at ₹45 per article after giving 10% discount and earns 50% profit. If the discount is not given the profit gained is:-	<del>196</del>	<del>49</del>
	(a) 60% (c) 66%	(b) 60% (d) 66%	<del>49</del>
56	During 2012-13, the annual revenue of J&K SRTC was:-	<del>196</del>	<del>196</del>
	(a) 90 Crores (c) 150 Crores	(b) 100 Crores (d) None of the above	<del>196</del>
57	Temperature which has the same reading on both Fahrenheit and Celsius scales is:-	<del>196</del>	<del>21</del>
	(a) $40^\circ$ (c) $-140^\circ$	(b) $-40^\circ$ (d) $-34^\circ$	<del>21</del>
58	National income may be determined through:-	<del>196</del>	<del>10</del>
	(a) Income approach (c) Productivity approach	(b) Expenditure approach (d) All of the above.	<del>10</del>
59	What is the sequence of the following events (1) Swadeshi Movement (2) Home Rule Movement (3) Anti-Rowlatt Act Movement (4) Khilafat Movement:-	<del>196</del>	<del>22</del>
	(a) 1,2,3,4 (c) 2,1,4,3	(b) 1,2,4,3 (d) 3,1,2,4	<del>36</del> <del>108</del>

60	A milk seller buys milk at the rate of Rs.10 per liter and adds 1/5 of water to it. What % profit does he make by selling the mixture at Rs.12 per liter:-		
	(a) 50%	(b) 45%	90
	(c) 40%	(d) 55%	10 + 8 10
61	Who is Known as the Father of Geometry:-		
	(a) Pythagoras	(b) Euclid	10 x 50
	(c) Kepler	(d) Aristotle	10 + 8 10
62	The length and the width of a swimming pool are 50 m & 15 m respectively. If the depth of swimming pool at one end is 10 m & the other at 20 m. Then find the volume of water in the swimming pool:-		
	(a) 11500m <sup>3</sup>	(b) 11250m <sup>3</sup>	15 x 50 x 15
	(c) 12500m <sup>3</sup>	(d) 11750m <sup>3</sup>	50
63	How many Fundamental Duties are included in Indian Constitution:-		
	(a) Nine	Eleven	15 x 50 x 15
	(c) Eleven	(d) Twelve	50 x 325 x 5 1125
64	To bite the dust means:-		
	(a) eat voraciously	(b) Have nothing to eat	
	(c) eat roots	(d) To fail	
65	Bauxite is an important ore of :-		
	(a) Aluminum	(b) Zinc	
	(c) Iron	(d) Copper	
66	McMohan line is the border between:-		
	(a) India & China	(b) India & Nepal	
	(c) India & Pakistan	(d) India & Bangladesh	
67	The formation of human blood in the body takes place in:-		
	(a) Spleen	(b) Bone marrow	
	(c) Plasma	(d) Liver	
68	Convex lenses are used for the correction of :-		
	(a) Astigmatism	(b) Short sightedness	
	(c) Cataract	(d) Long sightedness	

69	Which of the following planets of the solar system has the longest day:-	(a) Mercury (c) Venus	(b) Jupiter (d) Earth
70	Filament of an electric bulb made of :-	(a) Iron (c) Pungsten	(b) Graphite (d) Nichrome
71	Which form of phosphorus is used in safety matches:-	(a) White phosphorus (c) Green phosphorus	(b) <u>Red phosphorus</u> (d) Yellow phosphorus
72	The Doctrine of Lapse was introduced by:-	(a) Lord Wellesley (c) Lord Canning	(b) Warren Hastings (d) <u>Lord Dalhousie</u>
73	The Indian National Congress adopted the resolution of Poorna Swaraj at its session held at:-	(a) Calcutta (b) Allahabad	(b) Karachi (d) Lahore
74	Who introduced the system of Civil-Services:-	(a) Jawahar Lal Nehru (c) Lord Harding	(b) Warren Hastings (d) William Bentick
75	In which year was the Rolling Plan introduced:-	(a) 1951-52 (c) 1978-79	(b) 1976-77 (d) 1984-85
76	Which of the following was awarded Nobel Prize for Physics in 2013:-	(a) Francois Englert (c) Martin Karplus	(b) Peter Higgs (d) Both a and b
77	Gandhi-Irwin Pact took place in:-	(a) 1930 (c) 1932	(b) 1931 (d) 1933

78	Who of the following was recently elected the new Chairman of the International Cricket Council (ICC):-		
	(a) Narayanswamy Srinivasan	(b) Alan Raymond Isaac	
	(c) Wally Edwards	(d) Sunil Gavaskar	
79	The type of glass used in making lenses and prisms is: -		
	(a) Soft glass ✓	(b) Pyrex glass	
	(c) Jena glass	(d) Flint glass	
80	The speed of rotation of the earth is: -		
	(a) 25 km/sec.	(b) 31 km/sec.	✓
	(c) 39.5 km/sec.	(d) 9.72 km/sec.	
81	India's first monorail service was recently inaugurated in which of the following cities: -		
	(a) Mumbai	(b) Pune	
	(c) Bangalore	(d) Delhi	
82	Wax : Candle is same as _____ : Paper :-		
	(a) Tree	(b) Bamboo	
	(c) Pulp	(d) Wood	
83	A man pointing to a photograph says, "The lady in the photograph is my nephew's maternal grandmother." How is the lady in the photograph related to the man's sister who has no other sister: -		
	(a) Cousin	(b) Sister-in-law	
	(c) Mother	(d) Mother-in-law	
84	If + means $\div$ , $\div$ means $-$ , $-$ means $\times$ and $\times$ means $+$ , find the value of $12 + 6 \div 3 - 2 \times 8 = ?$		
	(a) -2	(b) 2	
	(c) 4	(d) 8	
85	Which memory is used in high-performance systems, Inserted between the processor and memory: -		
	(a) ROM	(b) SAM	
	(c) Cache	(d) RAM	

86	UN Commission for India and Pakistan was set up in:- (a) 20 <sup>th</sup> January, 1948 (c) 15 <sup>th</sup> August, 1947				(b) 25 <sup>th</sup> June, 1949 (d) 26 <sup>th</sup> January, 1951
87	On selling 17 balls at ₹ 720, there is a loss equal to the cost price of 5 balls. The cost price of a ball is:- (a) ₹ 60 (c) ₹ 90				720 17 5 420 90
88	The phrase "Cold comfort" means :- (a) Absurdity (c) Slight satisfaction				(b) Deception (d) Foolish proposal
89	The loss of dealer is increased by 4% when selling price decreases by ₹ 28. What is the cost price:- (a) ₹ 700 (c) ₹ 450				17 770
90	The antonym of SHALLOW is:- (a) High (c) Deep				(b) Hidden (d) Hollow J.P. c.p. + 17 10
91	SEBI was established in the year:- (a) 1988 (c) 1979				(b) 1989 (d) 1999 PAPER PAPER
92	One kilobyte is equal to.....bytes:- (a) 512 (d) 1024				(b) 1000 (d) 1042 Jine 3144
93	How many types of Emergency have been visualized in the Constitution of India:- (a) One (c) Three				(b) Two (d) Four
94	The most expensive component in a computer system is its :- (a) Hardware (c) Software				(b) Peripherals (d) Mother Board

95	The meaning of the phrase: "To die in harness": -			
	(a) Premeditated murder	(b) To die while in service		
	(c) To be taken by surprise	(d) Dying young in an accident		
96	Which of the following printer can be classified as a page-at-a-time printer:-			
	(a) Laser printer	(b) Dot-matrix printer		
	(c) Thermal printer	(d) Inkjet printer		
97	Where did the Prime minister Dr. Manmohan Singh inaugurate 101 <sup>st</sup> session of Indian Science Congress:-			
	(a) Himachal Pradesh	(b) Jammu		
	(c) Rajasthan	(d) Mumbai		
98	To "stain every nerve" means:-			
	(a) To make utmost efforts	(b) To feel weak and tired		
	(c) To be a diligent worker	(d) To be methodical in work		
99	Mitali Raj associated which of following one:-			
	(a) Tennis	(b) Hockey		
	(c) Cricket	(d) Football		
100	What is the function of the "home key" in a microcomputer qwerty keyboard:-			
	(a) To capitalize letters	(b) To reposition the cursor		
	(c) To interrupt executions	(d) To cancel the entry		
101	Dengue fever is caused by:-			
	(a) Bacteria	(b) Fungi		
	(c) Virus	(d) Protozoan		
102	Pick the wrong part of sentence: "He uses a fine/ Quality of shampoo/ so his hairs are/ black and attractive.":-			
	(a) He uses a fine	(b) Quality of shampoo		
	(c) So his hairs are	(d) Black and attractive		
103	Which of the following Cricketers is nicknamed as "Professor":-			
	(a) Allan Donald	(b) <u>Mohammad Hafez</u>		
	(c) Ross Taylor	(d) Sanjay Manjrekar		

104	<p>Pick the wrong part of sentence: "A misogynist is a person/ who is hating woman/ but a philogynist is a person/ who loves women.":-</p> <p>(a) A misogynist is a person (c) But a philogynist is a person</p> <p>(b) Who is hating woman (d) Who loves women</p>		
105	<p>What is white label ATM for :-</p> <p>(a) Its work for only one bank (c) Non-banking companies ATM</p> <p>(b) Its work for RBI only (d) None of these</p>		
106	<p>The least number which when divided by 15, 27, 35 and 42 leaves in each case a remainder of 7 is:-</p> <p>(a) 1883 (c) 1987</p> <p>(b) 1897 (d) 2007</p>		
107	<p>Which generation of computers used transistors:-</p> <p>(a) First generation (c) Fourth generation</p> <p>(b) Second generation (d) All of these</p>		
108	<p>Which instrument is used to convert mechanical energy into <u>electrical energy</u>:-</p> <p>(a) Dynamometer (c) Lactometer</p> <p>(b) Electrometer (d) Dynamo</p>		
109	<p>Words uttered impiously about God:-</p> <p>(a) Amoral (c) Logic</p> <p>(b) Philosophy (d) Blasphemy</p>		
110	<p>Due to colour blindness a person cannot distinguished between which colours:-</p> <p>(a) Red &amp; Blue (c) Red &amp; Black</p> <p>(b) Red &amp; Green (d) Red &amp; yellow</p>		
111	<p>Pick the wrong part of sentence: "Newspapers told / us about the events / that happen / all over the world.":-</p> <p>(a) Newspapers told (c) That happen</p> <p>(b) Us about the events (d) All over the world</p>		
112	<p>Small and medium Enterprise is one which has investment in plant and machinery not exceeding:-</p> <p>(a) 1 crore (c) 3 crore</p> <p>(b) 2 crore (d) 40 Lakhs</p>		

113	Which of following vitamins helps in normal clotting of blood in human beings:-			
	(a) Vitamin A	(b) Vitamin E		
	(c) Vitamin K	(d) Vitamin C		
114	In MODEMS :-			
	(a) Several digital signals are multiplexed	(b) A digital signal changes some characteristic of a carrier wave		
	(c) Digital signal is amplified	(d) All of these		
115	A perfect flower is one which:-			
	(a) Has all colours	(b) Has all whorls		
	(c) Has both sexual parts	(d) Is attractive to human eye		
116	The time gap between two sessions of the Parliament should not exceed:-			
	(a) 3 Months	(b) 6 Months		
	(c) 9 Months	(d) 1 Year		
117	The coin rupee was first issued by:-			
	(a) Sher Shah Suri	(b) Alauddin Khilji		
	(c) Akbar	(d) Jehangir		
118	"Doing something according to one's own free will" is:-			
	(a) Willfully	(b) Obligingly		
	(c) Voluntarily	(d) Compulsorily		
119	Information retrieval is fastest from :-			
	(a) Floppy disk	(b) Magnetic tape		
	(c) Hard disk	(d) All of these		
120	The third Battle of Panipat was fought in the year:-			
	(a) 1707	(b) 1739		
	(c) 1757	(d) 1761		
121	Leukemia is a disease of the:-			
	(a) Lungs	(b) Blood		
	(c) Skin	(d) Nerves		

122	Indian Standard Time is associated with:- (a) $82\frac{1}{2}$ East longitude (c) 90° West longitude			
	(b) $83\frac{1}{2}$ East longitude (d) $82\frac{1}{2}$ West longitude			
123	What is zero hour:- (a) When the proposals of the opposition are considered (c) Interval between the morning & afternoon sessions			
	(b) When matters of utmost importance are raised (d) When a Money Bill is introduced in the Lok Sabha			
124	A device that both transmits and receives data is:- (a) Transducer (c) Translator			
	(b) Trapdoor (d) Transceiver			
125	A man spent 20% of his monthly earning on rent. Out of the balance, he spent 75% on the other house expenses. If he had a balance of ₹ 250 at end of the month, the monthly earning of the man is:- (a) ₹ 1000 (c) ₹ 1500			
	(b) ₹ 1250 (d) ₹ 2700			
126	Who appoints the Chief Election Commissioner of India:- (a) President (c) Parliament			
	(b) Prime Minister (d) Chief Justice of India			
127	One who has narrow and prejudiced religious views is:- (a) Religious (c) Bigot			
	(b) Fanatic (d) God-fearing			
128	Kargil war was fought in:- (a) 1998 (c) 2000			
	(b) 1999 (d) 2001			
129	Which of the following is not a factor affecting the processing capability or performance of a PC system:- (a) The clock speed of the microprocessor (c) The primary storage capacity of the processor			
	(b) The revolutions per minute of the printer disk (d) The built-in instruction set available to the microprocessor			

130	How many languages are so far listed in the 8th Schedule of the Indian Constitution:-			
	(a) 20	(b) 22	(c) 18	(d) 21
131	The synonym of EAGER is:-			
	(a) Clever	(b) Enthusiastic	(c) Curious	(d) Devoted
132	The average of 6 numbers is 30. If the average of first four is 25 and that of the last three is 35, the fourth number is:-			
	(a) 35	(b) 30	(c) 25	(d) 40
133	A language based on graphics for use in education is:-			
	(a) PROLOG	(b) LOGO	(c) COBOL	(d) BASIC
134	Finance Commission is appointed for a period of:-			
	(a) 4 yrs	(b) 5 yrs	(c) 6 yrs	(d) 10 yrs
135	COMMEMORATE means to:-			
	(a) Boast	(b) Remember	(c) Manipulate	(d) Harmonies
136	First king of Dogra dynasity was:-			
	(a) Gulab Singh	(b) Hari Singh	(c) Agnivarna	(d) Ranjit Singh
137	A person who gambles or bets:-			
	(a) Punter	(b) Backer	(c) Customer	(d) Client
138	If $X + 1/X + 2 = 0$ , the value of $\{X^{37} - 1/X^{100}\}$ is:-			
	(a) -2	(b) 2	(c) -1	(d) 0

139	"Article 370: The Constitutional History of Kashmir" is written by:- (a) Z G Mohammad (c) Syed Ali Shah (b) A G Noorani (d) Sheikh Mohmad Abdullah			
140	A machine associated with card-based data processing is :- (a) Codomain (c) Cartridge (b) Collator (d) Digitizer			
141	The synonym of AMENITIES is:- (a) Pageantries (c) Facilities (b) Privileges (d) Courtesies			
142	The ozone layer in the upper part of the atmosphere protects us from:- (a) Ultrasonic waves (c) Ultraviolet rays (b) Cosmic ray (d) Infra-red rays			
143	Sardar Sarovar Project is based in the state of:- (a) Madhya Pradesh (c) Orissa (b) Gujarat (d) Uttar Pradesh			
144	If $3^{4x-2} = 729$ , the value of x is:- (a) 1.0 (c) 2.0 (b) 1.5 (d) 2.5			
145	A hardware used for virtual memory allocation is :- (a) CPU (c) controller (b) base-bound register (d) register unit			
146	LAWDA stands for :- (a) Land Architecture and water development Authority (c) Lidder & Wular Development Agency (b) Lakes & Waterways Development Authority (d) None of the above			
147	Which Indian state is the largest producer of pepper:- (a) Kerala (c) Madhya Pradesh (b) Tamil Nadu (d) Bihar			

148	In which Indian state Bokaro Steel Plant is Situated:-			
	(a) Bihar	(b) Orissa		
	(c) Madhya Pradesh	(d) Tamil Nadu		
149	A type of memory chip whose contents cannot be altered by writing data is:-			
	(a) RAM	(b) PROM		
	(c) ROM	(d) EPROM		
150	The time between midnight and noon:-			
	(a) Afternoon	(b) Antipodes		
	(c) Antemeridian	(d) Antenatal		
151	Rovers Cup is associated with:-			
	(a) Football	(b) Basketball		
	(c) Volleyball	(d) Tennis		
152	The term 'Duck' is associated with:-			
	(a) Cricket	(b) Football		
	(c) Volleyball	(d) Tennis		
153	A certain sum of money amounts to ₹1040 in 3 yrs. and ₹1360 in 7 yrs. at certain rate of S.I. Find the rate of interest:-			
	(a) 12.5%	(b) 10.0%		
	(c) 13.0%	(d) 15.5%		
154	A person who has no money to pay off his debts:-			
	(a) Insolvent	(b) Poor		
	(c) Destitute	(d) Pauper		
155	Which of the following films was recently awarded with the Best Film award at the 59th IDEA Film Fare Awards 2013:-			
	(a) Bhaag Milkha Bhaag	(b) Ramleela		
	(c) Chennai Express	(d) Lunch Box		
156	Constitution of J&K came into force on:-			
	(a) January 26, 1956	(b) January 26, 1957		
	(c) August 15, 1956	(d) August 15, 1957		



166	The ratio of pure gold in 18 carat gold is:-		
	(a) 60.00%	(b) 75.00%	(c) 80.00%
		(d) 91.22%	
167	The Vitamin which is very liable and easily destroyed during cooking as well as storage is:-		
	(a) Vitamin A	(b) Vitamin B6	
	(c) Vitamin C	(d) Vitamin K	
168	The value of: $\sqrt{-\sqrt{3}} + \sqrt{3 + 8\sqrt{7 + 4\sqrt{3}}}$		
	(a) 1	(b) 2	
	(c) 3	(d) 8	
169	One-third of the members of the Rajya Sabha retire after every:-		
	(a) One year	(b) Second year	
	(c) Third year	(d) Fifth year	
170	Joint sittings of the two Houses of Parliament are held to:-		
	(a) Consider and pass a Bill on which two Houses disagree	(b) Elect the President of India	
	(c) Adopt a Constitution amending Bill	(d) Elect the Vice-President of India	
171	The latitude and longitude of J&K are:-		
	(a) $32^{\circ} 74'N$ and $74^{\circ} 54'E$	(b) $34^{\circ} 47'N$ and $76^{\circ} 50'E$	
	(c) $40^{\circ} 45'N$ and $70^{\circ} 40'E$	(d) None of these	
172	"Having no arguments to defend his point, the speaker began to beat about the bush" means:-		
	(a) Wander across the word	(b) Speak in a haphazard manner	
	(c) Speak in a round-about manner	(d) Make use of irrelevant reference	
173	The percentage of Nitrogen in Air is:-		
	(a) 0.94%	(b) 0.03%	
	(c) 78.03%	(d) 85.02%	
174	Indian Constitution was amended for the first time in:-		
	(a) 1950	(b) 1951	
	(c) 1952	(d) 1953	

175	Bouncing of cheques has become an offence. What is the punishment for the same:- (a) 6 Months imprisonment ✓ (c) 2 year imprisonment		
	(b) 1 year imprisonment (d) 3 year imprisonment		
176	A Train passes a man standing on a platform in 8 seconds and also crosses the platform which is 264 meters long in 20 seconds. The length of the train is:- (a) 188 meters (c) 175 meters		
	(b) 176 meters (d) 96 meters		1
177	Improve the sentence:- "Why did you not spoken to me earlier":- (a) were you not spoken (c) <del>you</del> did not speak		
	(b) did you not speak (d) did you not spoke		264 20
178	The world Ozone Day is celebrated every year on:- (a) September 18 (c) March 12		
	(b) <u>September 16</u> (d) <u>March 10</u>		
179	Who among the following was known as the Parrot of India:- (a) Hussain Shah (c) Barbak Shah		
	(b) <u>Amir Khusrau</u> (d) Nanak		
180	In a certain office, 72% of the workers prefer tea and 44% prefer coffee. If each of them prefers tea or coffee and 40 Like both, the total number of workers in the office is:- (a) 200 (c) 250		
	(b) 240 (d) 320		

TUC

SET-C-PAGE-23



1. 4 consecutive years are taken such that exactly one of them is a leap year. One of these four years is randomly chosen. What is the probability that it will have 53 Wednesdays?  
 (A) 1/7  
 (B) 3/14  
 (C) 1/4  
 (D) 5/28

2. Which of the following statements about the brain is true?  
 i) The main thinking part of the brain is hind brain  
 ii) The centres for hearing, smell, memory, sight, etc., are located in fore brain  
 iii) The posture and balance of the body is controlled by cerebrum.  
 iv) Involuntary actions like salivation, vomiting, blood pressure are controlled by the medulla in the hind brain.  
 (A) i and ii  
 (B) ii and iv  
 (C) i and iii  
 (D) iii and iv

3. The organ that helps in circulation of blood in human beings is  
 (A) lungs  
 (B) kidneys  
 (C) heart  
 (D) stomach

4. What is the chemical formula of 'Caustic potash'?  
 (A) NaOH  
 (B) KOH  
 (C) Mg(OH)<sub>2</sub>  
 (D) Ca(OH)<sub>2</sub>

5. How many covalent bonds are there in the compound 'Butane'?  
 (A) 14  
 (B) 10  
 (C) 13  
 (D) 11

6. In a right angle triangle ABC, sides AB and BC are perpendicular. Side AB is extended further and a point D is taken on it such that vertex A lies between B and D. From vertex A, a line segment AE is drawn perpendicular to AC such that angle EAD is acute. What will be the value of cosine of angle EAD?  
 (A)  $\cos A$   
 (B)  $\sin A$   
 (C)  $\cos^2 A$   
 (D)  $\sin^2 A$

7. The main thinking part of the brain is  
 (A) forebrain  
 (B) midbrain  
 (C) hindbrain  
 (D) diencephalon

8. The organization involved in formulating programmes for protecting environment is  
 (A) WHO X  
 (B) UNDP X  
 (C) UNEP  
 (D) UNICEF X

9. A cubic polynomial,  $ax^3 + bx^2 + cx$ , ( $a \neq 0$ ) is taken such that the roots of this polynomial are in arithmetic progression. Also, this polynomial has a positive root as well as a negative root. What would be the value of b?  
 (A) 0  
 (B) -2  
 (C) 4  
 (D) 9

10. Which of these quadratic equations has the sum of its roots greater than the product of cube of its roots?  
 (A)  $x^2 - 5x + 4 = 0$   
 (B)  $x^2 - 5x - 6 = 0$   
 (C)  $x^2 - 6x + 8 = 0$   
 (D)  $x^2 - 7x + 12 = 0$

40°C

11. From the planar base of a hemisphere of radius  $R$ , a hemisphere of radius  $R/2$  is taken out and thrown so that a hemispherical void is visible on its planar base. What will be the total surface area of the remaining structure?

(A)  $3\pi R^2$   
(B)  $3.25\pi R^2$   
(C)  $3.5\pi R^2$   
(D)  $\pi^2 R^2$



12. Light is being reflected from a mirror. The angle of incidence is 50 degrees. What is the angle of reflection?

(A) 0  
(B) 25  
(C) 50  
(D) 100



13. The blood vessels that carry blood away from heart to various organs of the body are

(A) veinlet  
(B) veins  
(C) capillaries  
(D) arteries



14. A renewable natural resource among the following is

(A) Diesel  
(B) Petrol  
(C) Coal  
(D) Forest

$$D \left(\frac{4}{3}\right)^2 + \left(\frac{3}{5}\right)^2$$

15. Choose the correct Pronoun:

This is the girl, \_\_\_\_\_ won the first prize.

(A) whose  
(B) whom  
(C) who  
(D) what

$$D \frac{16+9+4}{9+25+18}$$

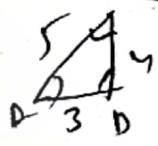
$$\Delta P = 5, (2P)^2 = 64, (-6)^2 = -216$$

16. The far point of a myopic person is 80 cm in front of the eye. What is the nature and focal length of the lens required to correct the problem?

(A) Converging lens of focal length 80 cm  
(B) Diverging lens of focal length 80 cm  
(C) Converging lens of focal length -80 cm  
(D) Diverging lens of focal length -80 cm

17. For a given right angled triangle, the squares of sines of its three angles are calculated and are added together. What will be the sum obtained?

(A) 0  
(B) 1  
(C) 2  
(D)  $\sqrt{2}$



18. A pair of linear equations is given, P:  $3x + 2y = 13$ , Q:  $4x + py = 19$ . For which of these values of 'p' will the solution for this pair of equations have a negative value of x?

(A)  $27/10$   
(B)  $7/4$   
(C) 2  
(D)  $5/2$

$$4x + py = 19$$

19. Government of India has instituted an award for wildlife conservation in honour of a person who sacrificed his/her life for the protection of Khejri trees. Name the person.

(A) Sunderlal Bahuguna  
(B) A.K.Banerjee  
(C) Amrita Devi Bishnoi  
(D) Guara Devi

20. When carbon-dioxide is passed through water, the resulting solution will be a

(A) strong acid  
(B) weak base  
(C) strong base  
(D) weak acid

$$\frac{100}{69.59}$$

water

21. Fill in the blanks with the correct words:

In these days of economic liberalization and globalization, materialistic values have assumed greater importance. Money, physical comforts and luxuries are the most sought after aspects. There has been \_\_\_\_\_ competition. Such competition \_\_\_\_\_ undue stress.

(A) unhealthy.....generates

(B) healthy.....fills

(C) terrific.....pulls

(D) fierce.....avoids

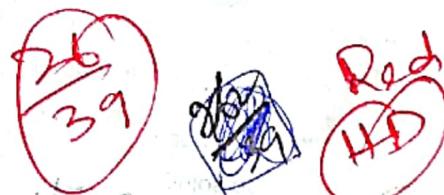
22. From a deck of cards, all the diamonds are removed. From the remaining cards, a card is chosen randomly. What is the probability that it will be a black card?

(A) 1/2

(B) 2/3

(C) 1/3

(D) 3/4



23. Fill in the blank with the correct Clause:

He talks \_\_\_\_\_

(A) as if he knew all about it.

(B) so that he knew all about it.

(C) as though he will know all about it.

(D) so that he will be knowing all about it.

24. Choose the correct physical states of the compounds involved in the following chemical reaction:



(A) X: solid, Y: solid, Z: gaseous

(B) X: gaseous, Y: solid, Z: gaseous

(C) X: solid, Y: gaseous, Z: gaseous

(D) X: gaseous, Y: gaseous, Z: gaseous

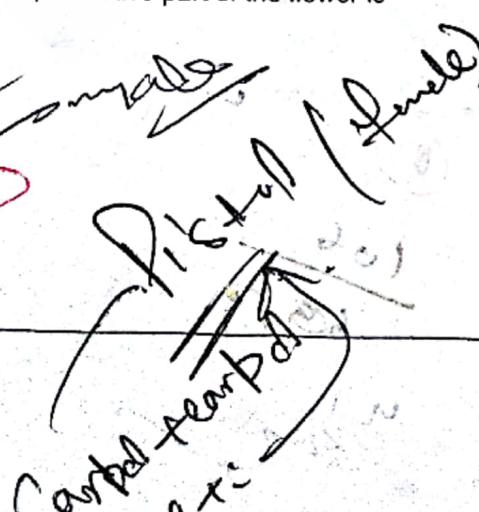
25. The female reproductive part of the flower is

(A) Sepal

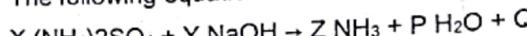
(B) Petal

(C) Stamen

(D) Carpel



26. The following equation shows a chemical reaction.



Find the values of X, Y, Z, P, Q required to balance the given equation.

(A) X: 1, Y: 2, Z: 2, P: 1, Q: 1

(B) X: 1, Y: 2, Z: 2, P: 2, Q: 1

(C) X: 1, Y: 1, Z: 1, P: 2, Q: 1

(D) X: 1, Y: 2, Z: 1, P: 2, Q: 1

27. The plant hormone which inhibits growth is

(A) Gibberellin

(B) Cytokinin

(C) Auxin

(D) Abscisic acid

28. Brain, spinal cord and nerves constitute which of the following systems?

(A) Respiratory system

(B) Endocrine system

(C) Nervous system

(D) Excretory system

29. Bundhis, Ahars, Khadins and Kattas are the ancient structures that are examples for

(A) Grain storage

(B) Wood storage

(C) Water harvesting

(D) Soil conservation

30. The organs in the male reproductive system for transport of sperms after its production in testis is

(A) Ureter  $\rightarrow$  Urethra(B) Urethra  $\rightarrow$  Ureter(C) Vas deferens  $\rightarrow$  Urethra(D) Vas deferens  $\rightarrow$  Ureter

31. Covalent bond between two atoms is formed by sharing

(A) ions

(B) electrons

(C) protons

(D) neutrons

40 C

32. Excessive exposure of humans to UV rays results in/ causes damage to:

- i. Skin cancer
- ii. Immune system
- iii. Lungs
- iv. Liver

(A) i and ii only  
(B) ii and iii only  
(C) iii and iv only  
(D) iv and i only

33. Growth hormone is secreted by which of the following endocrine glands?

- (A) Hypothalamus
- (B) Pituitary
- (C) Adrenal
- (D) Thyroid

34. Which of the following is formed when sodium passes through oxygen and then reacts with water?

- (A) Sodium hydride
- (B) Sodium chloride
- (C) Sodium hydroxide
- (D) Sodium oxide

35. For which of the following substances, resistance decreases with increase in temperature?

- (A) Copper
- (B) Platinum
- (C) Mercury
- (D) Carbon

36. The sensory receptors in our body that will detect smell are known as

- (A) Gustatory
- (B) Olfactory
- (C) Auditory
- (D) Thermoreceptors

37. Of the statements A and B given below, identify the correct options.

- A. All green plants and blue green algae are producers.
- B. Producers prepare their own food from inorganic compounds.

(A) Statements A and B are True  
(B) Statements A and B are False  
(C) Statement A is True and B is False  
(D) Statement A is False and B is True

38. Which of the following radiations coming from Sun is used in heating a solar cooker?

- (A) UV radiation
- (B) Gamma rays
- (C) IR radiation
- (D) Visible radiation

Infrared radiation

39. A few drops of diluted HCl are added to the test tube containing soap solution. What are the products obtained in the test tube after the reaction?

- (A) RCOOR and NaCl
- (B) RCH<sub>2</sub>OH and NaCl
- (C) RCOOH and NaCl
- (D) RCOOR and HCl

40. Choose the correct Pronoun:

He has an Alsatian dog, \_\_\_\_\_ name is Ceasar.

- (A) whose
- (B) which
- (C) that
- (D) whom

41. Father of genetics is

- (A) Stanley L. Miller
- (B) Gregor Mendel
- (C) Charles Darwin
- (D) Harold C. Urey

42. Fill in the blank with the appropriate form of Verb:  
This house \_\_\_\_\_ to my uncle.

(A) is belonging  
(B) belong  
(C) belongs  
(D) has belonged

43. What is the other name for "near-sightedness"?

(A) Hypermetropia  
(B) Myopia  
(C) Astigmatism  
(D) Presbyopia

44. The Arabari forests in West Bengal were famous for?

(A) Teak  
(B) Eucalyptus  
(C) Sal  
(D) Pine

45. Fill in the blank with the appropriate phrase:  
Ramesh is \_\_\_\_\_ all the rules and regulations.

(A) conversant by  
(B) conversant with  
(C) converse with  
(D) converse on

46. Contamination of water is indicated by the presence of

(A) Streptococcus  
(B) Coliform  
(C) Fungal spores  
(D) Aquatic plants

47. Natural numbers from 51 to 150 are written on 100 cards. A card is drawn randomly from this set of 100 cards. What is the probability that the number written on the card drawn will either be a perfect square or a perfect cube?

(A) 0.04  
(B) 0.05  
(C) 0.06  
(D) 0.07

48. In a stationary shop, the cost of 5 posters and 7 markers is Rs. 85. Sumit has to buy only 3 posters which he bought for Rs. 9. What will be the cost of one marker?

(A) Rs. 3  
(B) Rs. 10  
(C) Rs. 8  
(D) Rs. 17

49. A right circular cone of radius 60 cm and height 80 cm is taken. By making a cut parallel to its base, it is to be divided into a cone and a frustum. In how many different ways can this be done so that both the height and smaller radius of frustum are of integral length, when measured in cm?

(A) 0  
(B) 18  
(C) 19  
(D) 20

50. The percentage of solar radiation that is converted to organic matter by photosynthesis by the green plants on an average is about

(A) 1%  
(B) 5%  
(C) 10%  
(D) 20%

51. Oxidation of butter in presence of air is called

(A) fluidity  
(B) rusting  
(C) corrosion  
(D) rancidity

40 C

52. Fill in the blanks with the correct words:  
Some scholars, while exploring the forests of America, discovered some buildings that were in ruins. These buildings were \_\_\_\_\_ ruined by encroaching forests. They were remnants of a/an \_\_\_\_\_ civilization.  
(A) perpetually....simple   
(B) apparently.... great   
(C) simultaneously....ancient   
(D) happily....forgotten

53. Choose the correct option:

Which of the following phrases is used in a "Complaint Letter"?  
(A) I am glad to inform you...  
(B) I regret to bring to your notice...   
(C) It gives me immense pleasure to...  
(D) I want to purchase a washing machine...

54. U-235 can easily undergo fission by the action of slow moving of  
(A) electrons   
(B) protons   
(C) nucleons   
(D) neutrons

55. Which among the following is a plant hormone?  
(A) Insulin   
(B) Thyroxine   
(C) Oestrogen   
(D) Auxin

56. Which among the following is NOT a factor necessary for photosynthesis?  
(A) Sunlight   
(B) Carbon dioxide   
(C) Chloroplast   
(D) Oxygen

57. Brass is an alloy, containing

(A) Cu, Ni and Fe   
(B) Cu and Ni   
(C) Cu and Sn   
(D) Cu and Zn

58. In a right angled triangle, the sum of lengths of hypotenuse and one of the other sides is 72 cm. Also, this same side is 18 cm lesser in length than hypotenuse. What is the length of the third side of this triangle?  
(A) 20 cm   
(B) 26 cm   
(C) 32 cm   
(D) 36 cm

59. The type of mirror used for focussing light is  
(A) concave   
(B) convex   
(C) plane   
(D) plano concave

60. Soil erosion can be prevented by  
(A) Afforestation   
(B) Deforestation   
(C) Overgrazing   
(D) Removal of vegetation

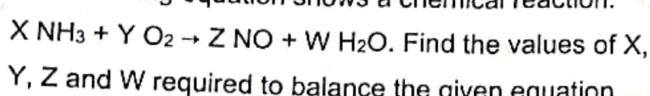
61. The main constituent of CNG is  
(A) butane   
(B) methane   
(C) propane   
(D) ethane

62. What should be the value of 'p' so that one of the roots of the given quadratic equation,  $x^2 - 6p^2x + 9p = 0$ , is 3 but the other is not?  
(A) 1   
(B) 1/2   
(C) -1   
(D) -1/2

63. The acid present in an Orange is

- (A) Acetic acid
- (B) Citric acid
- (C) Formic acid
- (D) Lactic acid

64. The following equation shows a chemical reaction:



- (A) X:5, Y: 5, Z: 4, W: 5
- (B) X:4, Y: 5, Z: 4, W: 4
- (C) X:4, Y: 5, Z: 4, W: 6
- (D) X:6, Y: 5, Z: 4, W: 1

65. Fill in the blank with the correct article:

This is clearly \_\_\_\_\_ best choice.

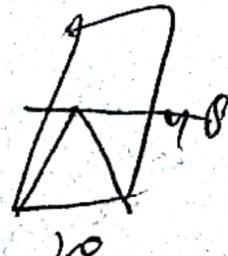
- (A) No article
- (B) an
- (C) a
- (D) the

66. When slaked lime water comes in contact of  $\text{CO}_2$ , a milky white precipitate is observed. This precipitate is due to the formation of

- (A)  $\text{CaO}$
- (B)  $\text{CaCO}_2$
- (C)  $\text{Ca}(\text{OH})_2$
- (D)  $\text{CaCO}_3$

67. A right circular cone of radius 20 cm and height 48 cm is taken. It is cut along a plane parallel to its base so that it is divided into a cone and a frustum such that the ratio of heights of cone and frustum is 1:2. What will be the volume of frustum hence formed?

- (A)  $6163\pi$
- (B)  $6723\pi$
- (C)  $7166\pi$
- (D)  $7324\pi$



68. Which are the reactants and products in the following chemical reaction?



- (A) Reactants:  $\text{Cu}(\text{NO}_3)_2$ ,  $\text{H}_2\text{O}$ ,  $\text{NO}_2$ ; Products: Cu,  $\text{HNO}_3$
- (B) Reactants: Cu,  $\text{NO}_2$ ; Products:  $\text{Cu}(\text{NO}_3)_2$ ,  $\text{H}_2\text{O}$ ,  $\text{HNO}_3$
- (C) Reactants: Cu,  $\text{HNO}_3$ ; Products:  $\text{Cu}(\text{NO}_3)_2$ ,  $\text{H}_2\text{O}$ ,  $\text{NO}_2$
- (D) Reactants: Cu,  $\text{Cu}(\text{NO}_3)_2$ ; Products:  $\text{HNO}_3$ ,  $\text{H}_2\text{O}$ ,  $\text{NO}_2$

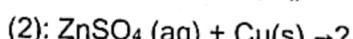
69. What is the chemical formula of vinegar?

- (A)  $\text{CH}_2\text{O}$
- (B)  $\text{CH}_5\text{O}$
- (C)  $\text{C}_2\text{H}_6\text{O}$
- (D)  $\text{C}_2\text{H}_4\text{O}_2$

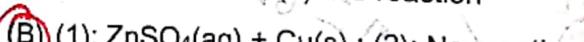
70. Geothermal energy can be defined as the heat generated

- (A) in labs
- (B) in rocks below the Earth's surface
- (C) by heating up rocks
- (D) in thermal flasks

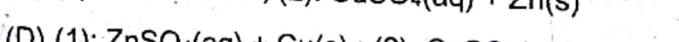
71. What is/are the product/products of the following two reactions?



- (A) (1): No reaction; (2): No reaction



- (C) (1): No reaction; (2):  $\text{CuSO}_4(\text{aq}) + \text{Zn}(\text{s})$



72. Budding is a method of asexual reproduction in

- (A) Amoeba
- (B) Spirogyra
- (C) Planarian
- (D) Hydra

40 C

73. A solid right circular cylinder of radius  $R$  and height  $H$  is taken, such that  $H > R$ . From one of its bases, a hemisphere of radius  $R$  is cut and pasted on the other base of a cylinder along its plane sides, so that the plane faces exactly cover each other. What will be the increment in total surface area when compared to that of original cylinder?

(A) 0  
(B)  $\pi R^2$   
(C)  $2\pi R^2$   
(D)  $3\pi R^2$



74. A solid cylinder P has a height of 50 cm and radius of 20 cm. Another solid cylinder Q has a height of 10 cm and radius of 40 cm. Both P and Q are to be joined together along their plane bases to form one cylinder but the area of their bases is different. To make their bases equal in area, Q is melted and reformed into a cylinder that has equal base area as that of cylinder P. Now, they are joined to form a single cylinder. What will be the height of the cylinder finally formed?

(A) 70 cm  
(B) 75 cm  
(C) 80 cm  
(D) 90 cm



75. The lungs in human beings are a part of which of the following systems?

(A) Nutrition  
(B) Respiration  
(C) Excretion  
(D) Transportation

76. The maleness of a foetus is determined by

(A) X chromosome in the zygote  
(B) Y chromosome in the zygote  
(C) Cytoplasm of germ cell  
(D) Somatic cells

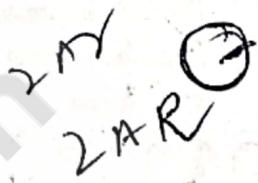
77. If a round, green seeded pea plant (RRyy) is crossed with wrinkled, yellow seeded pea plant (rrYY), the seeds produced in F<sub>1</sub> generation are

(A) Round and yellow  
(B) Round and green  
(C) Wrinkled and yellow  
(D) Wrinkled and green



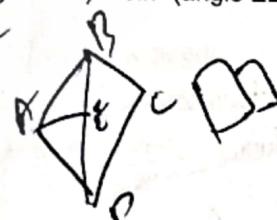
78.  $\text{CH}_4 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O} + \text{Heat and Light}$  : This reaction is an example of

(A) Addition  
(B) Combustion  
(C) Substitution  
(D) Reduction



79. Consider a cyclic quadrilateral ABCD. Angle bisectors of angles B and D are drawn that meet at point E. What will be the value of  $\sin^2(\text{angle EBA}) + \sin^2(\text{angle EDA})$ ?

(A) 0  
(B) 1  
(C)  $\sqrt{2}$   
(D)  $3/2$



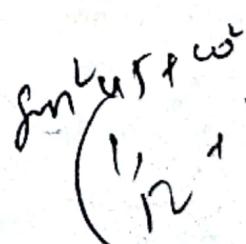
80. The opening and closing of the stomata on the surface of the leaves is the function of

(A) epidermal cell  
(B) subsidiary cells  
(C) guard cells  
(D) mesophyll cells



81. Which among the following is NOT a mechanical barrier method of contraception?

(A) Tubectomy  
(B) Condom  
(C) Cervical cap  
(D) Copper T



82. The distances measured in the direction of incident rays  
 (A) are always positive ✓  
 (B) are always negative  
 (C) are either positive or negative  
 (D) depend on where the object is placed

83. The major reasons for the depletion of the ozone layer has been linked to  
 (A) Chlorofluorocarbons ✓  
 (B) Carbon monoxide  
 (C) Methane  
 (D) Pesticides

84. Choose the sentence that is grammatically correct:  
 (A) House is at fire.  
 (B) The house is with fire.  
 (C) The house is on fire. ✓  
 (D) House is by fire.

85. Fill in the blank with the appropriate form of Verb:  
 We \_\_\_\_\_ a car last year.  
 (A) will have bought  
 (B) will buy  
 (C) bought ✓  
 (D) had brought

86. A rainbow is a natural spectrum appearing in the sky after a rain shower. This is due to  
 (A) dispersion of light ✓  
 (B) reflection of light  
 (C) refraction of light  
 (D) scattering of light

87. The foaming agent in a fire extinguisher is  
 (A)  $\text{NH}_4\text{OH}$   
 (B)  $\text{Ca}(\text{OH})_2$   
 (C)  $\text{Al}(\text{OH})_3$  ✓  
 (D)  $\text{Mg}(\text{OH})_2$

88. Two polynomials, P:  $(x + y)^2$  and Q:  $(x + y + z)^2$ , are expanded. Which of these terms would be there in Q only?  
 (A)  $x^2$   
 (B)  $2xz$  ✓  
 (C)  $y^2$   
 (D)  $2xy$

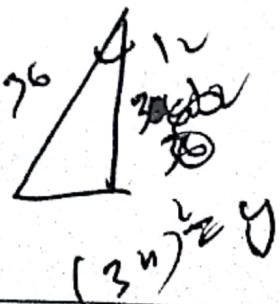
89. An oxidizing agent  
 (A) accepts electrons and thus becomes oxidised  
 (B) accepts electrons and thus becomes reduced ✓  
 (C) donates electrons and thus becomes reduced  
 (D) donates electrons and thus becomes oxidised

90. In humans, the female germ cells or eggs are made  
 in the  
 (A) Ovaries ✓  
 (B) Uterus  
 (C) Oviduct  
 (D) Vagina

91. The fluid medium of blood in which cells are suspended is known as  
 (A) Proteins  
 (B) Plasma ✓  
 (C) Lipids  
 (D) Fats

92. Which chamber in the heart receives the oxygenated blood from the lungs?  
 (A) Right atrium  
 (B) Left atrium ✓  
 (C) Right Ventricle  
 (D) Left Ventricle

93. The square of height of a tower is thrice the square of its shadow. What would be the angle of depression of sun at this moment, in degrees?  
 (A) 30 degrees  
 (B) 45 degrees  
 (C) 60 degrees  
 (D) 75 degrees



94. The hormonal methods of contraception are used by women for suppressing the

- (A) Process of embryo development
- (B) Production of Ovum
- (C) Movement of sperms
- (D) Development of Zygote

95. Which of the following is not a source of biomass?

- (A) Gobar gas
- (B) Coal
- (C) Wood
- (D) Nuclear energy

96. The zygote gets implanted for further development in the

- (A) Vagina
- (B) Ovary
- (C) Uterus
- (D) Oviduct

97. The unit of electric current is

- (A) Coulomb
- (B) Coulomb per second
- (C) Coulomb second
- (D) Coulomb per volt

98. The structural and functional unit of nervous system is

- (A) Neuron
- (B) Nephron
- (C) Axon
- (D) Cyton

99. Which metal remains as a liquid at room temperature and atmospheric pressure?

- (A) Hg
- (B) Cu
- (C) Sn
- (D) Ti

100. Which among the following is NOT a fossil fuel?

- (A) Wood
- (B) Petrol
- (C) Coal
- (D) Diesel

101. Choose the sentence which has appropriate punctuation marks:

- (A) She said I like to have coffee."
- (B) "She said, "I like to have coffee."
- (C) She said "I like to have coffee".
- (D) She said, "I like to have coffee."

102. Rubbing a balloon on your hair is an example of

- (A) charging by conduction
- (B) charging by induction
- (C) charging by friction
- (D) charging by radiation

103. The front of the eye is covered by a transparent membrane called

- (A) cornea
- (B) retina
- (C) iris
- (D) pupil

104. When diluted hydrochloric acid is added to a testube containing calcium, effervescence occurs. This effervescence is due to the formation of

- (A)  $H_2$
- (B)  $CaCl_2$
- (C)  $Ca(OH)_2$
- (D)  $O_2$

105. Which noble gas does NOT contain 8 valence electrons?

- (A) He
- (B) Ar
- (C) Kr
- (D) Ne

106. The plant used by Mendel to begin his experiments on plant hybridisation is

- (A) Garden Pea
- (B) Green Gram
- (C) Black gram
- (D) Horse gram

107. Paleontology is the study of

- (A) Fossils
- (B) Birds
- (C) Rocks
- (D) Embryos

108. A solid right circular cylinder of radius  $R$  and height  $H$  is taken, where  $H > 2R$ . From both its planar bases, hemispheres of radius  $R$  are cut and removed. What will be the ratio of volume of structure formed now to the volume of original cylinder?

- (A)  $(2H - 3R)/2H$
- (B)  $(3H - 4R)/3H$
- (C)  $(H - R)/H$
- (D)  $(4R - 2H)/3H$



109. Choose the sentence which has appropriate punctuation marks:

- (A) Who's the owner, of this house!
- (B) Who's the owner of this house?
- (C) Whos the owner of this house?
- (D) Who's the owner of this house.

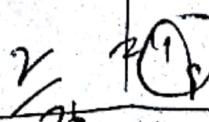
110. On a biased dice, numbers from 1 to 6 are written on its six faces. The probability that a face will appear on throwing the dice is directly proportional to the number written on that face. What is the probability that a face on which a multiple of 3 is written will appear both times when this dice is thrown twice?

- (A)  $5/28$
- (B)  $3/14$
- (C)  $2/7$
- (D)  $9/49$



111. A convergent lens of focal length 20 cm and made of material with refractive index 1.1 is immersed in water. The lens will behave as a

- (A) converging lens of focal length = 20 cm
- (B) converging lens of focal length less than 20 cm
- (C) converging lens of focal length more than 20 cm
- (D) divergent lens



112. An eagle is sitting at a distance of 100 metres from the base of a building. It can see a sparrow sitting at the top of the building at an angle of elevation of 30 degrees. It moves towards the building and sits at a point such that now it can see the same sparrow at an angle of elevation of 45 degrees. At what distance from the base of building is the eagle sitting now?

- (A) 57.735 metres
- (B) 10.711 metres
- (C) 100 metres
- (D) 173.205 metres

113. In which of the following cases, will the number of possible outcomes be maximum?

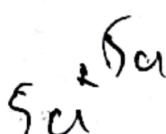
- (A) When two dices are thrown together
- (B) When six coins are tossed together
- (C) When a card is picked from a deck of 52 cards
- (D) When a boy and a girl have to be chosen from five boys and five girls

114. Fill in the blank with the correct Homophone:  
Although he was a strong swimmer, he was swept away by the \_\_\_\_\_ and was drowned.

- (A) current
- (B) currant
- (C) currents
- (D) currants

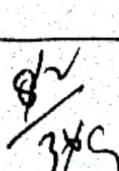
115. Wings of insects and bats are examples for which type of organs?

- (A) Homologous
- (B) Heterologous
- (C) Analogous
- (D) Vestigial



116. A stick in water appears broken because of

- (A) reflection of light
- (B) refraction of light
- (C) total internal reflection
- (D) dispersion of light



117. Fill in the blanks with the correct words:

In all written compositions, simplicity is the most \_\_\_\_\_ virtue. You should write in a simple and straightforward manner. Words should be \_\_\_\_\_ carefully.

- (A) unwanted....discarded
- (B) difficult....compared
- (C) admired ....selected
- (D) desired.... clarified

118. How many shared electrons are present between two atoms to form a triple bond?

- (A) 3
- (B) 4
- (C) 6
- (D) 2

119. Which of the following will reduce the energy consumption?

- (A) Leave the lights, fans and T.V on even when no one is using them
- (B) Use a room heater during winter
- (C) Use a personal vehicle for going to school
- (D) Use CFL (Compact Florescent Lamps)

120. Fill in the blank with the correct article:

Modern music is often considered inferior to that of \_\_\_\_\_ past.

- (A) a
- (B) the
- (C) an
- (D) No Article

121. The difference of speeds of two trains P and Q is 20 km/hr. Train P and train Q start from points A and B and move towards each other. The distance between points A and B is 240 km. If the trains meet each other after 2 hours of journey, what is the speed of the faster train?

- (A) 50 km/hr
- (B) 60 km/hr
- (C) 65 km/hr
- (D) 70 km/hr

122. Fill in the blank with the appropriate phrase:

We can't \_\_\_\_\_ a personality in one day.

- (A) make with
- (B) make over
- (C) make from
- (D) make in

123. The information source for making proteins in the cell nucleus is

- (A) Nucleolus
- (B) Nucleoplasm
- (C) DNA
- (D) RNA

124. Two fair coins are thrown together. Only if heads appears on both coins, a fair dice is thrown on which natural numbers from 1 to 6 are written on the faces. What is the probability that the face on which 2 is written will appear on the dice?

- (A) 1/4
- (B) 1/6
- (C) 1/12
- (D) 1/24

125. The probability that Madhu will pass in her terminal exams is  $1/3$ . The probability that Meena will fail in the same exams is  $3/4$ . What is the probability that exactly one of them passes in these exams?

- (A) 5/12
- (B) 1/4
- (C) 1/6
- (D) 11/24

126. The instrument that is used to measure blood pressure is

- (A) Anemometer
- (B) Barometer
- (C) Hygrometer
- (D) Sphygmomanometer

40-C

127. Plaster of Paris is made from

- (A) gypsum
- (B) caustic soda
- (C) slaked lime
- (D) lime stone

128. The transmission of genetic characters from parents to offspring's is known as

- (A) Heredity
- (B) Variation
- (C) Mutation
- (D) Speciation

129. Mining causes pollution by discarding a large amount of waste after extraction of the metal. This waste is known as

- (A) Scrap
- (B) Slag
- (C) Slats
- (D) Sink

130. A charge is taken from a point A to a point B. The work done per unit charge in this process is called

- (A) Potential
- (B) The potential at AB
- (C) The potential difference between B and A
- (D) The current between B and A

131. Choose the sentence that is grammatically correct:

- (A) A salesman has to be aggressive if he wants to succeed.
- (B) A salesman have to be aggressive if he want to succeed.
- (C) A salesman be aggressive if he wanted to succeed.
- (D) A salesman were to be aggressive if he wants to succeed.

132.  $\text{HCl (aq)} + \text{NaOH (aq)} \rightarrow \text{NaCl (aq)} + \text{H}_2\text{O(l)}$ . The amount of energy released for the above reaction at 298 K and 1 atmospheric pressure is

- (A) 57.1 KJ/mol
- (B) 57.1 KJ mol
- (C) 57.1 J/mol
- (D) 57.1 J mol

133. The sum of two positive numbers is the same as its product. Also, both these numbers are different. What can be said about these two numbers?

- (A) Both the numbers are always greater than 1
- (B) Exactly one of these numbers is greater than 1
- (C) Both the numbers are always lesser than 1
- (D) One of these numbers must always be 1

134. Find out the compound from the following having the shortest carbon-carbon bond length.

- (A)  $\text{C}_2\text{H}_2$
- (B)  $\text{C}_2\text{H}_6$
- (C)  $\text{C}_2\text{H}_4$
- (D)  $\text{C}_2\text{H}_5\text{Cl}$

135. Which of the following statements represents Ohm's law?

- (A) Current = resistance x potential difference
- (B) Current = temperature x potential difference
- (C) Potential difference = current x resistance
- (D) Current/resistance = potential difference

136. A red litmus paper after dipping into a solution turns blue. The pH value of the solution is likely to be

- (A) 2
- (B) 7
- (C) 4
- (D) 10

137. Which of these polynomials will have the sum of its coefficients greater than 10, when expanded?

- (A)  $(2x + 3)(x + 1)$
- (B)  $(x + 3)(x + 1)$
- (C)  $(x + 3)(2x + 1)$
- (D)  $(2x + 1)(x + 1)$

138. Offspring formed as a result of sexual reproduction exhibit more variations because the genetic constitution is from

- (A) Single parent having both gametes
- (B) Parents of the same species
- (C) Parents of different species
- (D) Many parents

40 C

$2\beta_1 = \alpha$   
 $2\beta_2 = \alpha$

$2\beta_1 = \alpha$

$\beta_1 \sim$

139. Stars twinkle due to

- (A) reflection
- (B) dispersion
- (C) scattering
- (D) atmospheric refraction

140. Ozone layer is present in which strata of the atmosphere?

- (A) Mesosphere
- (B) Stratosphere
- (C) Thermosphere
- (D) Exosphere

141. For the given values of radius and height, which of these will have the maximum volume?

- (A) A sphere of radius  $r$
- (B) Right circular cylinder of radius  $r$  and height  $2r$
- (C) Hemisphere of radius  $r$
- (D) Right circular cylinder of radius  $r$  and height  $r$

142. Corrosion of silver or the black coating on silver in the presence of air occurs due to the formation of

- (A)  $\text{AgOH}$
- (B)  $\text{Ag}_2\text{S}$
- (C)  $\text{Ag}_2\text{O}$
- (D)  $\text{Ag}_2\text{SO}_4$

143. A metallic spherical ball of radius 10 cm is taken. It is melted down and then used to form some spherical balls of radius 1 cm and some spherical balls of radius 3 cm. If at least 460 balls of radius 1 cm are to be formed, at the most how many balls of radius 3 cm can be formed?

- (A) 12
- (B) 20
- (C) 27
- (D) 36

144. Which allotrope of carbon is a good conductor of electricity?

- (A) Diamond
- (B) Graphite
- (C) Coal
- (D) Fullerene

145. Flow of energy in an ecosystem is always

- (A) Unidirectional
- (B) Bidirectional
- (C) Multidirectional
- (D) Reversible

146. The plant hormone which promotes cell division is

- (A) Gibberellin
- (B) Cytokinin
- (C) Auxin
- (D) Ethylene

147. Arrange the following metals according to their increasing order of reactivity towards water.

Mg, Fe, Na, Cu, Zn.

- (A)  $\text{Na} > \text{Mg} > \text{Zn} > \text{Fe} > \text{Cu}$
- (B)  $\text{Na} < \text{Mg} < \text{Zn} < \text{Fe} < \text{Cu}$
- (C)  $\text{Na} > \text{Mg} > \text{Zn} < \text{Fe} > \text{Cu}$
- (D)  $\text{Na} < \text{Mg} > \text{Zn} > \text{Fe} < \text{Cu}$

148. Fill in the blank with the correct Homophone:

If you do not apply the \_\_\_\_\_ in time you will \_\_\_\_\_ your leg.

- (A) brake, break
- (B) brake, brake
- (C) break, break
- (D) break, brake

149. Choose the correct option:

Which of the following leave-taking phrases is punctuated correctly?

- (A) Yours sincerely,
- (B) Your's faithfully;
- (C) Your' loving son,
- (D) Yours' affectionate sister,

150. Organisms that are able to manufacture their own food from inorganic raw materials with the help of

energy obtained from outside are called

- (A) autotrophs
- (B) heterotrophs
- (C) saprophytes
- (D) parasites