

## NATIONAL TALENT SEARCH EXAMINATION (NTSE-2019) STAGE -1 "GUJARAT' STATE PAPER : SAT

Date: 04/11/2018

Max.	. Marks: 100		SOLUTIONS	Time allowed: 120 mins
1.	(A ∩ B')' =			
	(A) $A \cup B'$	(B) $A' \cup B$	(C) $A \cup B$	(D) $A \cap B'$
Ans.	(B)			
Sol.	$(A \cap B')' = A' \cup (B')$	$' = A' \cup B$ [Acco	ording to De Morgan's law]	
<b>2</b> .	The supplementary an	gle of the comple	ementary angle having measure 23	has measure
	(A) 67	(B) 90	(C) 113	(D) 23
Ans.	(C)			
Sol.	Complementary of 23	= 90 - 23 = 67		
	Supplementary of 67	= 180 – 67 = 11	.3	
3.	The width of the class	55.5 – 60.5 is _		
	(A) 10	(B) 5	(C) 2.5	(D) 7
Ans.	(B)			
Sol.	Class width $= 60.5 - 5$	55.5 = 5		
4.	$\overline{\text{AD}}$ and $\overline{\text{BE}}$ are the	altitudes of ABC	C. If $AD = 6 \text{ cm}$ , $BC = 16 \text{ cm}$ , $BE$	= 8 cm, then $CA = \_$ cm.
	(A) 12	(B) 18	(C) 24	(D) 10
Ans.	(A)			
Sol.	A B B C B C B C C C C C C C C C C C C C	$\sum_{C}$ Base × Height is height and if C	CA is base, BE is height. Equating a	rea in both the ways we get
	$\frac{1}{-} \times BC \times AD = \frac{1}{-} \times C$	A×BE		

$$\frac{1}{2} \times BC \times AD = \frac{1}{2} \times CA \times BE$$
  
$$\therefore \frac{1}{2} \times BC \times AD = \frac{1}{2} \times CA \times BE$$
  
$$\therefore 16 \times 6 = CA \times 8$$
  
$$\therefore CA = \frac{16 \times 6}{8} = 12 \text{ cm}$$

 $(D) x^2 - x + 6$ (A)  $x^2 + x$ (B)  $x^2 + x + 6$ (C)  $x^2 + x - 6$ Ans. (C)  $x^{2} + x - 6$ **Sol.**  $x+3)x^3+4x^2-3x-18$  $x^{3} + 3x^{2}$ \_ \_  $x^2 - 3x - 18$  $x^2 + 3x$ \_\_\_\_ -6x-18 -6x - 18+ + + 0  $\therefore$  Other factor is  $(x^2 + x - 6)$ 6. If G.C.D. of two numbers is 8 and their product is 384, then their L.C.M. is (A) 24 (B) 16 (C) 32 (D) 48 **Ans.** (D) **Sol.** Product of two numbers =  $G.C.D. \times L.C.M$  $384 = 8 \times L.C.M$ L.C.M. =  $\frac{384}{8} = 48$ The sum of the zeros of  $3x^2 + 5x - 2$  is 7. (C)  $\frac{5}{3}$ (A)  $\frac{3}{5}$ (D)  $-\frac{5}{3}$ (B)  $-\frac{3}{5}$ Ans. (D) **Sol.** Sum of zeros is given by  $\frac{-b}{a}$ . For given equation , sum of zeroes are -8. If in a two digit number, the digit at unit place is y and the digit at tens place is 7, then the number is \_\_\_\_\_. (A) 70y +7 (B)y + 7(C) y + 70(D) 10y +7 Ans. (C) **Sol.** Two digit number is given by 10(Tens digit) + Unit digit = 10(7) + y = 70 + y = y + 70

If one factor of the polynomial  $x^3 + 4x^2 - 3x - 18$  is x + 3, then the other factor is

**9.** If the correspondence ABC  $\leftrightarrow$  EFD is a similarity in  $\triangle$ ABC and  $\triangle$ DEF, then following is not true.

(A) 
$$\frac{BC}{DF} = \frac{AC}{DE}$$
 (B)  $\frac{AB}{DE} = \frac{BC}{DF}$  (C)  $\frac{AB}{EF} = \frac{AC}{DE}$  (D)  $\frac{BC}{DF} = \frac{AB}{EF}$ 

**Ans.** (B)

5.

**Sol.** From Figure it is clear that (B) is not true.



10.	In $\triangle ABC$ , m $\angle B = 90$ , A	AB = BC. Then $AB : AC =$	·					
Ans.	(A) 1:3 (C)	(B) 1 : 2	(C) $1:\sqrt{2}$	(D) $\sqrt{2}$ : 1				
Sol.	If $AB = AC$ and $\angle B = 9$	90, Let AB = BC = x.						
	As per Pythagoras theore	As per Pythagoras theorem, $AC^2 = AB^2 + AC^2 = x^2 + x^2 = 2x^2$						
	$\therefore AC = \sqrt{2}x$							
	$AB: AC = x: \sqrt{2}x = 1:$	$\sqrt{2}$						
11.	The diagonal of a square	is $5\sqrt{2}$ . The length of the s	side of the square is					
	(A) 10	(B) 5	(C) $3\sqrt{2}$	(D) $2\sqrt{2}$				
Ans.	(B)							
Sol.	Diagonal of square havin	g side = a is given by $a\sqrt{2}$						
	As $a\sqrt{2} = 5\sqrt{2}$ , $a = 5$							
12.	The foot of the perpendic	cular from $P(-3, 2)$ to the Y	- axis is M. co-ordinates of 1	M are				
	(A) (3,0)	(B) (0, 2)	(C) $\left(\frac{3}{2}, -1\right)$	(D) (-3, 2)				
4.00	( <b>P</b> )							
Ans. Sol.	(B) Y							
	P (-3, 2) M(0, 2)							
	(-3, 0) (0, 0)	×X						
	From figure it is clear that	coordinates of M are $(0,2)$						
13.	If ten5 $\theta$ .tan4 $\theta$ = 1, then	θ is						
Ans	(A) 7 (C)	(B) 3	(C) 10	(D) 9				
Sol.	As, $\tan 5\theta$ . $\tan 4\theta = 1$							
	$\tan 4\theta = \frac{1}{-1} = \cot 5\theta = \tan(90 - 5\theta)$							
	$\tan 5\theta$ $\therefore 4\theta = 90 - 5\theta$ (Compa	$\tan 5\theta$ : $4\theta = 90 - 5\theta$ (Comparing both the sides)						
	$\therefore 9\theta = 90$							
	$\therefore \theta = 10$							
14.	For right angle $\triangle ABC$ , sin	$a^2A + \sin^2B + \sin^2C = $	 (C) 0					
Ans.	(A) Z (A)	(B) I	(C) U	(D) -1				
Sol.	$\sin^2 A + \sin^2 B + \sin^2 C$	$=\sin^2 A + \sin^2 90 + \sin^2 (90)$	$(-A) = \sin^2 A + 1 + \cos^2 A$	$A = 1 + \sin^2 A + \cos^2 A$				
	=1 + 1 = 2 ( Sin <sup>2</sup> A +	$+ \cos^2 A = 1$	,,	- 1 + 5111 / 1 + 005 A				

**15.** A chord of  $\odot$  (0, 5) touches  $\odot$  (0, 3). Therefore, the length of the chord = \_\_\_\_. (A) 8 (B) 10 (C) 7 (D) 6

Ans. (A) Sol. A M B

From figure,  $AM^2 = OA^2 - OM^2 = 5^2 - 3^2 = 25 - 9 = 16$ 

 $\therefore$  AM = 4. Length of chord = 2AM = 2 × 4 = 8

16. A card selected at random from well - shuffled pack of 52 cards. The probability that the selected card is not an ace is \_\_\_\_\_\_.

(A) 
$$\frac{12}{13}$$
 (B)  $\frac{4}{13}$  (C)  $\frac{1}{13}$  (D)  $\frac{13}{4}$ 

**Ans.** (A)

Sol. There are 4 ace is a deck of 52 cards.

$$P(Ace) = \frac{4}{52} = \frac{1}{13}$$

 $P(Not an Ace) = 1 - \frac{1}{13} = \frac{12}{13}$ 

17. Two balanced dice are thrown once. The probability of getting sum of numbers is divisible by 5 is\_.

(A) 
$$\frac{29}{36}$$
 (B)  $\frac{5}{36}$  (C)  $\frac{1}{6}$  (D)  $\frac{7}{36}$ 

**Ans.** (D)

**Sol.** Both dice can have numbers 1 to 6 on each of them. Sum can be any number from 2 to 12. Out of these 5 and 10 are divisible by 5. Favorable cases: (1,4), (2,3), (3,2), (4,1), (4,6), (5,5), (6,4)i.e. total 7 cases. Total cases =  $6 \times 6 = 36$  cases.

Probability = 
$$\frac{7}{36}$$

- **18.** If  $\sqrt{3}$  and  $-\sqrt{3}$  are the zeros of a polynomial p(x), then is not the factor of the p(x).
  - (A)  $x + \sqrt{3}$  (B)  $x \sqrt{3}$  (C)  $x^2 3$  (D)  $x^2 + 3$

**Ans.** (D)

**Sol.** If  $\sqrt{3}$  and  $-\sqrt{3}$  are zeros of polynomial p(x) then its factors are  $(x - \sqrt{3}), (x + \sqrt{3})$  and  $(x - \sqrt{3})(x + \sqrt{3})$ . also  $(x - \sqrt{3})(x + \sqrt{3}) = x^2 - 3$ 

So  $x^2 + 3$  is not the factor of p(x).

**19.** Equation  $\frac{2}{3}x + \frac{3}{2}y = 5$  can be expressed in the standard form as \_\_\_\_\_. (A) 2x + 3y - 5 = 0 (B) 4x + 9y - 5 = 0 (C) 4x + 9y + 30 = 0 (D) 4x + 9y - 30 = 0Ans. (D) **Sol.**  $\frac{2}{3}x + \frac{3}{2}y = 5$ , taking LCM,  $\frac{4}{6}x + \frac{9}{6}y = 5$  $\therefore 4x + 9y = 30$  $\therefore 4x + 9y - 30 = 0$ **20.**  $\frac{317}{3125}$  represents \_\_\_\_\_. (A) A terminating decimal (B) A non-recurring decimal (C) A recurring decimal (D) An Integer Ans. (A) **Sol.**  $\frac{317}{3125} = \frac{317}{5^5}$ As denominator has only factor of 5, it is having a terminating decimal expansion. 21. 100 meter = \_\_\_\_\_ nm. (A) 10<sup>-11</sup> (B) 10<sup>11</sup> (D)10<sup>9</sup>  $(C) 10^{-9}$ Ans. (B) **Sol.** 1 meter =  $10^9$  nm Hence, 100 meter =  $100 \times 10^9$ nm =  $10^{11}$  nm. 22. Which is not an allotropes of carbon nanostructures? (A) Fullerene (B) Graphene (C) Bucky - ball of Born atoms (D) Nanobuds Ans. (C) Sol. Bucky - ball of Boron atoms is not an allotrope of carbon nanostructures. 23. What is speed of light in glass? (B)  $2.25 \times 10^8 \,\mathrm{ms}^{-1}$ (C)  $3 \times 10^8 \text{ ms}^{-1}$  (D)  $1.75 \times 10^8 \text{ ms}^{-1}$ (A)  $2 \times 10^8 \, \text{ms}^{-1}$ Ans. (A) Sol. Refractive index of glass is 1.5 Speed of light in glass =  $\frac{\text{Speed of light in vacuum}}{\text{Re fractive index of glass}} = \frac{3 \times 10^8 \text{ ms}^{-1}}{1.5} = 2 \times 10^8 \text{ ms}^{-1}$ 24. Which equation not represent Snell's law? (A)  $\frac{\mathbf{n}_2}{\mathbf{n}_1} = \frac{\sin \theta_1}{\sin \theta_2}$  (B)  $\frac{\mathbf{n}_1}{\mathbf{n}_2} = \frac{\sin \theta_2}{\sin \theta_1}$  (C)  $\mathbf{n}_1 \sin \theta_1 = \mathbf{n}_2 \sin \theta_2$  (D)  $\mathbf{n}_1 \sin \theta_2 = \mathbf{n}_2 \sin \theta_1$ Ans. (D)

**Sol.** Snell's law is  $n_1 \sin \theta_1 = n_2 \sin \theta_2$ . Hence, options (A), (B), (C) are correct.

25. National science day celebrates on (A) March 28 (B) January 28 (C) April 28 (D) February 28 Ans. (D)

Sol. National science day is celebrated on February 28.

**Instruction**: According to the question, chosse the correct option in question no. 26 to 50.

26. When a milky and cloudy layer is formed on the eye lens of old age person, they lose their vision partially or completely. This type of situation is called

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

Ans. (B)

Sol. Cataract is the situation in which a milky and cloudy layer is formed on the eye lens of old age person due to which they lose their vision partially or completely.

27. Determine the equivalent resistance between points x and y in the following circuit.

(C) 9 Ω

(D) 6 Ω

Ans. (A)



Sol. Resistors between P and Q and Q and Y are in series. So, their effective resistance,  $R_1 = 3 \Omega + 3 \Omega = 6 \Omega$  $R_1$  and 3  $\Omega$  resistance between  $\overset{1}{P}$  and Y are in parallel. So, their effective resistance  $R_2$  is given by,

$$\frac{1}{R_2} = \frac{1}{3} + \frac{1}{6} = \frac{2+1}{6} = \frac{3}{6} = \frac{1}{2}$$
  
R<sub>2</sub> = 2Ω

R and resistance between P and X are in series. Hence, R =  $3 \Omega + 2 \Omega = 5 \Omega$ .

Which formula is not correct for R? (R = Resistance) 28.

(A) 
$$R = \frac{W}{I^2 t}$$
 (B)  $R = \frac{V^2}{P}$  (C)  $R = I^2 t$  (D)  $R = \frac{P}{I^2}$ 

Ans. (C)

**Sol.** 
$$W = I^2 Rt$$
  
 $P = I^2 R$ 

 $P = \frac{V^2}{R}$  are the correct formulae for R.

<b>29</b> .	The unit of electric potential difference is					
	(A) JC	(B) J/C	(C) J	(D) C/J		
Ans.	(B)					
		Work done				
Sol.	Electric Potential differen	ce = Charge.				
	Therefore, its unit is J/C.					
<b>30</b> .	Which is not correct?					
	(A) Acid+Base $\rightarrow$ Salt	+Water	(B) Acid+MetalOxide-	→Salt+Water		
	(C) Non – Metal Oxide -	+ Water → Base	(D) Base + Metal + Water	$\rightarrow$ Salt+Hydrogen		
Ans.	(C)					
Sol.	Non-metal oxides are aci	dic in nature so they combin	e with water form acid. So c	option (C) is correct answer.		
31.	Which is weak acid?					
	(A) Oxalic acid	(B) Hydrochloric acid	(C) Nitric acid	(D) Sulphuric acid		
Ans.	(A)					
Sol.	Oxalic acid $(C_2H_2O_4)$ is w	veak acid because it dissociat	te very less when dissolved i	n water.		
<b>32</b> .	What is the chemical form	nula of milk of magnesia?				
	(A) MgNO <sub>3</sub>	(B) MgSO <sub>4</sub>	(C) Mg(OH) <sub>3</sub>	(D) Mg(OH) <sub>2</sub>		
Ans.	(D)					
Sol.	Formula of milk of magnesia is $Mg(OH)_2$ .					
<b>33</b> .	How many long wire can	be drawn from a gram of go	old?			
	(A) 2 centimeter	(B) 2 meter	(C) 2 kilometer	(D)200 meter		
Ans.	(C)					
Sol.	Metals like gold and silver	r has the special property of	ductility. 2 kilometer long wi	re can be drawn from one gram		
	gold.					
<b>34</b> .	Which alloy is used to pre	paration of statues?				
	(A) Bronze	(B) Brass	(C) Steal	(D) Duralumin		
Ans.	(A)					
Sol.	Bronze has the property of and medals.	of being stronger and more co	prrosion resistant. So it is use	d in preparation of statues, coins		
35.	Which is not a step of me	tallurgy?				
	(A) Reduction	(B) Roasting	(C) Corrosion	(D) Concentration of ore		
Ans.	(C)					
Sol.	Concentration of ore, reduction and roasting are step of metallurgy but not corrosion.					
<b>36</b> .	respire through lungs.					
	(A) crabs	(B) lizard	(C) sepia	(D) prawns		
Ans.	(B) Lizard balance to alone Ba	while and the recontratory are	ron in contilos is lungs			
301. 37	Anaerobic respiration tak	epilia and the respiratory org	gan in replies is lungs.			
	(A) Mitochondria	(B) Gland	(C) Lungs	(D) Cytoplasm		
Ans.	(D)	. /	., .			
Sol.	. The whole process of anaerobic respiration takes place in cytoplasm i.e. glycolysis and fermentation (lactic ac fermentation or alcoholic fermentation).					

<b>38</b> .	The small intestine receives the secretion from				
	(A) Salivary glands	(B)	(B) Stomach and Liver		
	(C) Liver and Salivary glands	(D)	Liver and Pancreas		
Ans.	(D)				
Sol.	Liver and Pancreas are the digest of the small intestine through bi	tive glands that pour their s le duct and pancreatic du	secretion, bile juice and pa ct respectively.	ncreatic juice into the first part	
<b>39</b> .	Where in do the pulmonary vein	s open?			
	(A) Left auricle (B)Le	eft ventricle	(C)Lungs	(D)Right auricle	
Ans.	(A)				
Sol.	Pulmonary veins are the veins the	hat carry oxygenated bloc	d from lungs to the left pa	rrt of heart i.e. left auricle	
<b>40</b> .	In the villi of ileum the absorptio	on of lipids takes place thr	ough		
	(A) Lymph ducts (1	B) Lymph capillaries	(C) Blood capillaries	(D) Lymph vessels	
Ans.	(B)				
Sol.	In the villi of small intestine, ly circulation.	mph capillaries (lacteals)	absorbs the lipids (fats)	and conduct it to the blood	
41.	Which animals in the animal king $(A)$ Fishes Amphibians $(B)$ A	gdom require the maximu	m amount of energy?	D) Birds Mammals	
Anc	(A) Tisties – Amphilotans $(B)$ $(B)$		(Manimais – Replites (	D) Blids – Manimals	
Sal	(D) Birds and Mammals requires me	avinum amount of anora	u for maintaining constar	at body temperature thus they	
301.	possess four chambered heart that fulfills their high energy demands by supplying oxygen rich blood to different parts of the body.				
<b>42</b> .	It is found as four small glands.				
	(A) Parathyroid gland (A)	B) Adrenal gland (C)	Pituitary gland	(D) Thyroid gland	
Ans.	(A)				
Sol.	The parathyroid glands are four	tiny glands, located in the	e neck, that control the bo	dy's calcium levels	
<b>43</b> .	Whose excessive secretion cause	es the body to look like gor	·illa?		
	(A) GTH (B) P	PRL	(C) GH	(D) MSH	
Ans.	(C)				
Sol.	Excessive secretion of growth ho	ormone in adults causes en	largement of the body and	d gives gorilla like appearance.	
44.	Which wave length of harmful U	IV- radiations is prevented	by ozone layer in entering	g the earth atmosphere?	
•	(A) 210-300 nm (B) 2	200-310 nm	(C) 120-210 nm	(D) 400-700nm	
Ans.	(B)	ana abaarka barraful I W.	diations ranging from 20	0.210 mm	
301. 45	Which of the following group has	ua oplu pop biodagradable	aciations ranging from 20	0-510 mm.	
40.	1. wood, paper, leather	ve only non-orodegradaok	e components.		
	2. polythene, detergent, pvc				
	3. plastic, detergent, glass				
	4. plastic, glass, animal dung				
	(A) 1 and 4 (B) c	only 3 (C)	) 2 and 3 (	D) 1 and 3	
Ans.	(C)				
Sol.	Both 2 and 3 groups contains on	nly non-biodegradable sub	stances take several years	s to decompose.	
<b>46</b> .	A car accelerates uniformly from	n 18 km/h to 36 km/h in 5	sec. Calculate the acceler	ration.	
	(A) $1 \text{ ms}^{-2}$ (B) 3	3.6 ms <sup>-2</sup>	(C) 2 ms <sup>-2</sup>	(D) 2.6 ms <sup>-2</sup>	
Ans.	(A)				

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Sol.	Initial speed, u = 18	$km/h = 18 \times \frac{1000}{3600} m/s$	$= 5 \mathrm{m/s}$	
	Final speed, $v = 36$ l	$km/h = 36 \times \frac{1000}{3600} m/s =$	= 10 m / s	
	Acceleration, a = -	$\frac{v-u}{t} = \frac{10-5}{5} = 1 \mathrm{ms}^{-2}$		
47.	What is the SI unit of	f momentum?		
	(A) g ms <sup>-1</sup>	(B) g m <sup>2</sup> s <sup>-1</sup>	(C) kg ms <sup>-1</sup>	(D) kg ms <sup>-2</sup>
Ans.	(C)			
Sol.	Momentum is produ	ct of mass and velocity. Her	nce, SI unit of momentum is	kgms <sup>-1</sup> .
<b>48</b> .	What is mass of the r	noon?	,	
	(A) $6 \times 10^{24}$ kg	(B) $7.4 \times 10^{22}$ kg	(C) $6 \times 10^{22}$ kg	(D) $7.4 \times 10^{24}$ kg
Ans.	(B)	( )		
Sol.	Mass of moon is 7.4	$\times 10^{22}$ kg.		
<b>49</b> .	A boy of mass 50 kg (Take $g = 10 \text{ ms}^{-2}$ )	runs up a staircase of 45 st	eps in 9 sec. If the height of	each steps is 15 cm. Find his power.
	(A) 275 w	(B) 350 w	(C) 325 w	(D) 375 w
Ans.	(D)			
Sol.	$Power = \frac{Work  don}{Time}$	$\frac{e}{t} = \frac{mgh}{t} = \frac{50 \times 10 \times 45 \times 9}{9}$	$\times 15 \times 10^{-2} = 375 \mathrm{w}$	
<b>50</b> .	When we go from so	lid to gaseous state, the spe	ed of sound	
	(A) increases	(B) increases or d	ecreases (C) decreases	(D) constant
Ans.	(C)			
Sol.	Speed of sound is dir	ectly proportional to density	of medium.	
	As density of solid is	greater than density of gase	s, speed of sound is less in g	ases as compared to solids.
51.	What is the formula o	of carbon tetrachloride?		
	(A) CCl <sub>4</sub>	(B) CCl <sub>3</sub>	(C) CCl <sub>2</sub>	(D) CCl
Ans.	(A)			
Sol.	Formula of carbon te	trachloride is CCl <sub>4</sub> .		
<b>52</b> .	What is the maximur	n number of electrons that o	can be accommodated in the	e outermost orbit?
	(A) 2	(B) 8	(C) 3	(D) 18
Ans.	(B)			
Sol.	Maximum electrons	that can be accommodated	in the outermost orbit is 8.	
<b>53</b> .	The melting point of	ice is		
	(A) 273.15 K	(B) 173.15 K	(C) 373.5 K	(D) 100 K
Ans.	(A)			
Sol.	Melting point of ice is	<sup>3</sup> 0°C which means 273.15 I	X	
54.	is not an exan	npole of Aerosol.		
	(A) Fog	(B) Clouds	(C) Mist	(D) Shaving cream
Ans.	(D)		1	
Sol.	Fog, clouds and mist	are example of aerosol but	shaving cream is type of foa	ım.

<b>55</b> .	Who give the defination of an element?						
	(A) Rebert Boyle	(B) John Dalton	(C) Lavoisier	(D) Thomsom			
Ans.	(C)						
Sol.	Lavoiser attempted to give exoplanatory definition of an element.						
<b>56</b> .	is also known as the 'suicidal bag' of a cell.						
	(A) Mitochondria	(B) Lysosomes	(C) Plastids	(D) Golgi Apparatus			
Ans.	(B)						
Sol.	Lysosomes are called sui enzymes which eats up it	cidal bags because during a ts own cell.	ny cellular damage lysosome	es bursts and spills its hydrolytic			
57.	is not an examp	ple of simple tissues.					
	(A) Parenchyma	(B) Collenchyma	(C) Sclerenchyma	(D) Phloem			
Ans.	(D)						
Sol.	Phloem is a complex per	manent tissue.					
<b>58</b> .	Which is example of the	bryophyte?					
	(A) Spirogyra	(B) Ulothrix	(C) Ulva	(D) Marchantia			
Ans.	(D)						
Sol.	Marchantia (liver wort) is	an example of a bryophyte.					
<b>59</b> .	is not an example	of Echinodermata.					
	(A) Octopus	(B) Sea star	(C) Echinus	(D) Antedon			
Ans.	(A)						
Sol.	Octopus belongs to phyle	um Mollusca.					
60.	Which is an example of c	chronic diseases?					
	(A) Common cold	(B) Asthma	(C) Flu	(D) Pneumonia			
Ans.	(B)						
Sol.	Asthma is a severe respir	atory disease which may per	rsist through out the life time.				
61.	Who discovered the "Cap	be of Good Hope"?					
	(A) Vasco-da-Gama	(B) Bartholomew Diaz	(C) Columbus	(D) Price Henry			
Ans.	(B)						
Sol.	Bartholomew Diaz discov	vered in 1488					
<b>62</b> .	Who became the first Go	overnor General of India?					
	(A) Cornwallis	(B) Wellesley	(C) Warren Hastings	(D) Sir John Shore			
Ans.	(C)						
Sol.	In 1773 Warren Hastings	s become first British Govern	er General of India.				
<b>63</b> .	How many commissions	were found in "Paris Peace F	Process"?				
	(A) 48	(B) 58	(C) 68	(D) 79			
Ans.	(B)						
Sol.	58						
<b>64</b> .	Who was the pioneer of a	armed revolution in Gujarat					
	(A) Aurbindo Ghosh		(B) Barindarkumar Gho	sh			
Ans	(し) Bai Gangadhar Tilak		(D) Manatma Gandhi				
Sol	Aurbindo Ghosh was the	pioneer of armed revolution	n in Guiarat				
		r					

<b>65</b> .	One lakh mill workers of 75 cotton mill industries in Ahmedabad went on peaceful strike for how many days?				
	(A) 35 days	(B) 95 days	(C) 105 days	(D) 2010 days	
Ans.	(C)				
Sol.	105 days				
<b>66</b> .	In which year Union Sum	mit was held in Kuala Lumpur	?		
	(A) 2001	(B) 2003	(C) 2004	(D) 2009	
Ans.	(B)				
Sol.	2003				
67.	In the year 1971, Bangla country?	desh became an independent	and sovereign country as ea	arlier it was the part of which	
	(A) India	(B) Afghanistan	(C) China	(D) Pakistan	
Ans.	(D)				
Sol.	Pakistan				
<b>68</b> .	Who was appointed as the	e chairman of state reorganiza	tion commission by Jawahar	lal Nehru in 1953?	
	(A) Mr. Hridaynath Kunzr	u (	B) Mr. K.M. Panikkar		
	(C) Justice Fazal Ali	(	D) Dr. Sarvapalli Radhakrishi	nan	
Ans.	(C)				
Sol.	Justice Fazal Ali				
<b>69</b> .	Which word was inserted	by 42nd Amendment, 1976?			
	(A) Social	(B) Political	(C) Sovereign	(D) Secular	
Ans.	(D)				
Sol.	Secular (42nd Amendme	ent, 1976 changed the descrip	tion of India from sovereign,	, socialist secular democratic	
	republic.				
<b>70</b> .	Who said this "to rule the	regime there principles are the	foundations."?		
	(A) Mahatma Gandhi		(B) Sardar Patel		
	(C) Dr. B.K Ambedkar		(D) Dr. Rajendra Prasad		
Ans.	(C)				
Sol.	Dr. B.K Ambedkar				
71.	If any member of the Lok	Sabha remains absent for a co	ontinuous period of how man	ly days without informing the	
	Speaker then his seat is de	eclared vacant?			
	(A) 60	(B) 70	(C) 80	(D) 105	
Ans.	(A)				
Sol.	60				
<b>72</b> .	The judge who handles th	ne criminal cases is called?			
	(A) District Judge		(B) Muncif Magistrate		
	(C) Sessions Judge		(D) Supreme Court Judge		
Ans.	(C)				
Sol.	Sessions Judge				
<b>73</b> .	In which sea Lakshadwee	p Islands is located?			
	(A) Bay of Bengal		(B) Arabian Sea		
	(C) Red Sea		(D) Mediterranean Sea		
Ans.	(B)				
Sol.	Arabian Sea				
74.	In our routine life, about h	now many types of minerals ar	e used directly or indirectly?		
	(A) 100 types	(B) 200 types (	C) 300 types	(D) 400 types	
Ans.	(B)				
Sol.	200 types				

75.	Which island in Brahmaputra is the largest riverine island in the world?			
	(A) Drivar	(	B) Barren island	
	(C) Great Nicobar Island	(	D) Mazuli (Majuli)	
Ans.	(D)			
Sol.	Mazuli (Majuli)			
<b>76</b> .	Where is the Miradatar fai	r held in the Rajab Month 16t	h to 22nd?	
	(A) Gimar	(B) Bhavnagar	(C) Kwant	(D) Unava
Ans.	(D)			
Sol.	Unava			
77.	How many types of tunes h	nave been described by Pandi	it Ahobale?	
	(A) 108	(B) 29	(C) 101	(D) 19
Ans.	(B)			
Sol.	29			
78.	Guiarati poetru known as (	Garba and Garbi are chiefly a	associated with which type of l	Bhakti?
70.	(A) Ram Bhakti	(B) Hanuman Bhakti	(C) Meera Bhakti	(D) Krishna Bhakti
Ans	(D)	(D) Hanaman Dhaki		
Sol	(D) Krishna Bhakti			
70	Dholka is a place between	which two rivers?		
19.	(A) Narmada & Tani	which two livers:	(B) Saharmati & Narmada	
	(A) Namaua & Tapi		(D) Sabarmati & Maha	1
<b>A</b>	(C) Dhogavo & Sabahhah		(D) Sabalillali & Malle	
Ans.	(C) Rhageurs <sup>Q</sup> Saharmati			
501.	Bhogavo & Sabarmati			
80.	What was built in Lothal to	o facilitate the ships?		
•	(A) Hall	(B) Dockyard	(C) Pillar	(D) Grill
Ans.	(B)			
50l. 01	Dockyard	D. 1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1	24 D	
81.	(A) Lind:	(P) Sanalurit	(C) Magadhi	$(\mathbf{D})$ $\mathbf{D}_{\mathbf{c}}$
Ano		(D) Saliskill	(C) Magadhi	(D) Pall
Sol	(D) Pali			
82	The ruler of Vallabhi belon	ged to which dunastu?		
02.	(A) Maitrik dunastu	(B) Vijav Nagar dvnastv	(C) Mughal dynasty	(D) Vansh dunastu
Ans.	(A)	(2) vijaj i kagal aj hacij		(2) / Canon aynably
Sol.	Maitrik dynasty			
83.	Who has written the book	"Bij Ganit"?		
	(A) Shankracharya		(B) Bhaskaracharya	
	(C) Vatsayayan		(D) Maharishi Patanjali	
Ans.	(B)			
Sol.	Bhaskaracharya			
<b>84</b> .	Hindu caves are built durir	ng the reign of which dynasty?	)	
	(A) Ashoka dynasty		(B) Maurya dynasty	
	(C) Kunala dynasty		(D) Rashtrakuta dynasty	
Ans.	(D)			
Sol.	Rashtrakuta dynasty			
<b>85</b> .	How much perecentage of	f the total land of India occup	ies Red Soil?	
	(A) 19 %	(B) 29 %	(C) 39 %	(D) 40 %
Ans.	(A)			
Sol.	19 %			

<b>86</b> .	Leopard belongs to which	family?				
	(A) lion	(B) tiger	(C) dog	(D) cat		
Ans.	(D)					
Sol.	cat					
87.	Watermelon and cucumber are of which types of agricultural crops in India?					
	(A) kharif crops		(B) zaid crops			
	(C) rabi crops		(D) plantation crops			
Ans.	(B)					
Sol.	zaid crops					
<b>88</b> .	Which is the main source of	of surface water?				
	(A) Seas	(B) Lakes	(C) Rivers	(D) Ponds		
Ans.	(C)					
Sol.	Rivers					
<b>89</b> .	In which country the Baux	ite was found first time in 1921	?			
	(A) India	(B) America	(C) China	(D) France		
Ans.	(D)					
Sol.	France					
<b>90</b> .	20% rich people of the co	ountry share 40% of national	income and the poorest 20	% people share how much		
	percentage of national inco	ome?				
	(A) 30%	(B) 20%	(C) 10%	(D) 5%		
Ans.	(C)					
Sol.	10%					
91.	In which year the World Tra	ade Organization was establish	ed?			
	(A) 1950	(B) 1985	(C) 1995	(D) 2015		
Ans.	(C)	( )				
Sol.	1995					
<b>92</b> .	Where was the first time "E	arth conference" organized in 1	972?			
	(A) Stockholm in Sweden		(B) Imphal in India			
	(C) Geneva in Switzerland		(D) America in Washington			
Ans	(A)					
Sol	Stockholm in Sweden					
93	In which year "Air Pollution	h Act" was passed in India?				
50.	(A) 1961	(B) 1971	(C) 1981	(D) 1999		
Ane	(C)					
Sal	1081					
01.	Concept of noverty was fire	t propounded by director of uit	nich organization?			
<b>34</b> .	(A) WTO					
<b>A</b> 100	(A) WIO		(C) ECOSOC	(D) UNICEF		
Alls.						
501. 07		. (0011.1 1	1 1 1 • • • •	· •		
<b>9</b> 5.	According to census, count	(ng  of  2011,  how many educat)	ea unemployed were in Ind	a:		
_	(A) 54 million	(B) /9 million	(C) 81 million	(D) 84 million		
Ans.	(D)					
Sol.	84 million					

<b>96</b> .	Till 2015 there were how many employment exchange centres were there in our country?					
	(A) 908	(B) 947	(C) 1010	(D) 1189		
Ans.	(B)					
Sol.	947					
<b>97</b> .	According to early hypothe	esis "Varna System" was based	on how many occupations?			
	(A) 10	(B) 6	(C) 4	(D) 2		
Ans.	(C)					
Sol.	4					
<b>98</b> .	In which article of Indian C	Constitution, schedule tribes are	e included?			
	(A) Article-341	(B) Article- 342	(C) Article-29	(D) Article- 15		
Ans.	(B)					
Sol.	Article-342					
<b>99</b> .	According to which Article	e, untouchability is totally eradi	cated and its practice in any	form is prohibited?		
	(A) Article-17	(B) Article- 29(a)	(C) Article- 341	(D) Article-25		
Ans.	(A)					
Sol.	Article- 17 of the constitution	ion abolishes the practice of un	touchability.			
100.	After which year terrorism has increased in Kashmir?					
	(A) 1962	(B) 1965	(C) 1988	(D) 1999		
Ans.	(C)					
Sol.	1988					