## PART - A

## Synonyms

Directions: Each item in this section consists of a sentence with an underlined word followed by four words, (a), (b), (c) and (d). Select the option that is nearest in meaning to the underlined word and mark

1.	He is	essentially a lowbrow person.
-	(a)	coarse
	(b)	
	17-	proud
	(c)	passionate
	( <b>d</b> )	pathetic
2.	His	nostalgia is deep.
	(a)	excitement
	( <b>b</b> )	longing
	(c)	happiness
		ability
	: Tife	
3.	His	truancy is detrimental.
	(a)	loyalty
	( <b>b</b> )	integrity
	(c)	honesty
	( <b>d</b> )	absenteeism
		III LA
4.		is a maleficent person. Let's do it
	(a)	3
	(b	
	(c)	
	(d	) friendly
5	ю н	is solemnity is celebrated.
	(a	) greed
	(b	) desire
	(c	) trust

- 8. His bounty is limitless.
  - (a) benevolence
  - (b) gallantry
  - nepotism (c)
  - (d) chivalry
- The Holocaust was experienced by millions.
  - (a) celebration
  - (b) destruction -
  - (c) construction .
  - beautiful
- His aversion is known to all. 8.
  - hospitality
  - (b) hostility
  - humility (c)
  - humbleness
- To be able to decipher something is wonderful. oge
  - decode
  - (b) encode
  - simulate
  - animate
- It is the opportune time to think about 10. investment in the real estate sector.
  - honorary
  - appropriate
  - difficult
  - (d) unsuitable

(d)

dignity-

## **Spotting Errors**

Directions: Each item in this section has a sentence with three underlined parts labelled (a), (b) and (c).

Read each sentence to find out whether there is any error in any underlined part. Indicate your response in the Answer Sheet against the corresponding letter i.e., (a) or (b) or (c). If you find no error, your response in should be indicated as (d).

- 11. Nursery classes for the children starts on April every year. No error

  (a) (b) (c) (d)
- 12. The pollution level is very high in our city, and becomes a health hazard.

  (a) (b) (c)

  No error (d)
- 13. India is a country of linguistic and cultural diversity with (a) (b) (c)

  No error
- 14. Why does the lapse rate effect the tendency of air to rise? No error

  (a)

  (b)

  (c)

  (d)

DFGT-U-GTA

(d)

15.	The thorax is the upper part	of your body f	rom the n	eck down	
	(a)		(b)		
	to the bottom of the ribs and d	liaphragm. N	lo error		
	(c)		( <b>d</b> )		
16.	The practical uses of astrolog	y have seldo	m been se	riously	
	( <b>a</b> )		(b)		
	studied outside India. No en	rror			
	(c) (d				
17.	She colloss 1				
	She collected some armful  (a)	of medicines a	and pour	ed them down a drain.	No error
	(a)	(b)		(c)	(d)
18.	In many countries, the Uni	tod by			
	In many countries, the Uni (a)	ted Nations	or other in	nternationally organise	d
	(4)			(b)	_
	peacekeeping forces are try	ying to keep tl	ne peace	No owner	
		e)		(d)	
19.	Early cities rely on food ar	nd water from	41		
	(a)		in the sur	rounding countryside,	
		3		(b)	
	but today cities often depo	end on distan	t sources.	No error	
		(c)		(d)	
20	Climate change, whether	it is natura	l or huma		
	(a)		(b)	in-induced,	
	is stressful for the people	e. No error			
	(c)	(d)			
	NT 11 OTA	ar.			

## **Antonyms**

**Directions:** Each item in this section consists of a sentence with an underlined word followed by four words, (a), (b), (c) and (d). Select the option that is **opposite in meaning** to the underlined word and mark your response in your Answer Sheet accordingly.

- 21. His opinion is lopsided.
  - (a) partial
  - (b) crooked
  - (c) unequal
  - (d) balanced
- 22. His work is praiseworthy.
  - (a) admirable
  - (b) condemnable
  - (c) commendable
  - (d) creditable
- 23. His deeds had retrograde results.
  - (a) progressive
  - (b) negative
  - (c) retreating
  - (d) reverse
- 24. He always offers palatable solutions.
  - (a) acceptable
  - (b) agreeable
  - (c) unacceptable
  - (d) pleasant
- 25. His views on the subject are microscopic.
  - (a) broad-based
  - (b) minute
  - (c) precise
  - (d) fine
- DFGT-U-GTA

- 26. He is always obdurate in his behaviour towards other people.
  - (a) flexible
  - (b) callous
  - (c) insensible
  - (d) obnoxious
- 27. Mohan always had profound respect for Sohan.
  - (a) deep
  - (b) extreme
  - (c) sincere
  - (d) superficial
- ımş.ın
  - 28. We were living in <u>turbulent</u> times.
    - (a) destructive
    - (b) unstable
    - (c) calm
    - (d) stormy
  - 29. Amit is a dogmatic person.
    - (a) assertive
    - (b) amenable
    - (c) bold
    - (d) rigid,
  - 30. Sachin is very fickle in his behaviour.
    - (a) stable
    - (b) capricious
    - (c) mercurial
    - (d) vacillating

# Ordering of words in a sentence

Directions: Each of the following items in this section consists of a sentence, the parts of which have been jumbled. These parts have been labelled P, Q, R and S. Given below each sentence are four sequences ely (a), (b), (c) and (d). You are required to re-arrange the jumbled parts of the sentence and mark your

1.	symbolic of peace, and prosperity	the Gupta Empire in India is
	P	Q
	represented through numbers	
	represented through numismatic	archaeological and literary evidences of multiple kin
	The correct seems	S
	The correct sequence should be:  (a) QPRS	
	(b) QSRP	
	(c) PSQR	
	(d) RSQP	
_		
32.	the transportation system so tha	tit and not just the on
	P	t it and not just the affluent section of society
	Drovidos 1 ::	Q
	provides mobility to everyone	there are many ways to restructure
	11	
	The correct sequence should be:  (a) PORS	:
	(a) PQRS (b) RQPS	
	(c) SPRQ ·	
	(d) QRPS	
	4-12-5	
<b>33</b> .	and accurately displays spatial	malast a
	P	relationships between landforms and water bodies
		^
	the globe shows Earth's spheric	
	R	and comparative distance between locations
		~
	The correct sequence about 111	
	The correct sequence should be	:
	(a) PQRS	:
	<ul><li>(a) PQRS</li><li>(b) RPQS</li></ul>	:
	(a) PQRS	

(6-C)

34.	the function of the capillaries and	other material to all the cells in
	P	Q
	is to take nutrients, oxygen the bo	ody and to take away their waste material
	R	S
	The correct sequence should be:	
	(a) PRQS	
	(b) RPQS	
	(c) SPQR	
	(d) QRPS	
35.	like mine even to someone with	a tin ear her singing sounded pretty melodious
	P Q	R S
	The correct sequence should be:	
	(a) PRQS	
	(b) RPQS	
	(c) SPQR	
	(d) QRPS	
36.	the comment of a Co-Co-Co-Co-Co-Co-Co-Co-Co-Co-Co-Co-Co-C	
<b>50.</b>	the sorry state of affairs in the moder P	
		Q
	under the British was pro-capitalist	though it took some half-hearted steps to mitigate
	R	S
	The correct sequence should be :	
	(a) PRQS	
	(b) QRSP	
	(c) SPQR	
	(d) QPSR	
DF	GT-U-GTA	
		(7-C)

	of ext	reme povert	y among its people	econon	nic polici	es was tl	ne prevalence	
	P			Q				
	a maj	or characte	ristic of British rule in	India	and th	e net res	sult of British	
			R			S		
	The c	correct sequ	ence should be :					
	(a)	PRQS						
	( <b>b</b> )	QRSP						
	(c)	RSQP						
	<b>(d)</b>	QPSR						
	you o	an't judge	very intelligent, but	a bo	ook by it	s cover	he doesn't look	
		P	Q		R			
	The	correct sequ	ence should be :				~	
	( <b>a</b> )	SQPR						
	(b)	QRSP						
	(c)	RSQP						
	( <b>d</b> )	QPSR						
			d partisanship as well P	as c	an be to	und in th	ne decline in party	
	evid	ence of a cr	isis in party politics	in the	rise of a	ntiparty	groups and moveme	
			R			S		
		correct seq	uence should be :			5		
	(a)	RQPS						
	(b)	QRSP						
	(c)	RSQP						
	( <b>d</b> )	QPSR						
Ю.	gov	ernment, m	arket and voluntary o	rganice	tions	mint	0	
			P	0		mxture	of contributions fro	
			_				Q	
	the	provision o	f public goods and s	ervices	can be 1	egarded:	as a complex	
		F	<u> </u>		S	-Bar ded	as a complex	
	The	correct sec	quence should be :		3			
	(a)	RQPS						
	(b)	QRSP						
	(c)	RSQP						
	(d)	QPSR						
	( <b>u</b> )	<b>4-</b> ~						
_		T A			18-0	`		

## **Idioms and Phrases**

**Directions**: Given below are some idioms/phrases followed by four alternative meanings for each. Choose the most appropriate answer from among the options (a), (b), (c) or (d).

#### 41. Once-over

- (a) To do something quickly
- (b) To do something elaborately
- (c) To do something perforce
- (d) To do something for others

## 42. A bag of bones

- (a) An extremely fat person
- (b) An extremely thin person
- (c) A wealthy person
- (d) A healthy person

### 43. Muddy the waters

- (a) To spread dirt around
- (b) To make a situation easy
- (c) To make one's life happy
- (d) To make the situation complicated

#### 44. To level with

- (a) To be honest
- (b) To be on a plain
- (c) To cheat someone
- (d) To take revenge

## 45. Show your hand

- (a) To tell people about the past
- (b) To tell people about the future
- (c) To tell people about them
- (d) To tell people about your plans

#### 46. To pull up

- (a) To lift heavy weights
- (b) To check oneself
- (c) To shorten the distance
- (d) Too short of destination

#### 47. Be out of action

- (a) To get punishment
- (b) To get reward
- (c) To become dysfunctional
- (d) To become superactive

#### 48. Learning from the school of hard knocks

- (a) Learning things from experience
- (b) Learning things from others
- (c) Learning things from environment
- (d) Learning things through difficult experiences

#### 49. Raise some hackles

- (a) To annoy
- (b) To make someone happy
- (c) To do a great task
- (d) To sit idle

#### 50. A man of letters

- (a) An excellent artist
- (b) A scholar in literature
- (c) An outstanding sportsman
- (d) A known novelist

#### PART - B

- 51. Girth of stem of a plant increases due to 55.
  - (a) apical meristem only.
  - (b) lateral meristem only.
  - (c) apical and intercalary meristem.
  - (d) both apical and lateral meristem.
- 52. Different varieties of the same gene are called
  - (a) Genotypes
  - (b) Sib pairs
  - (c) Alleles
  - (d) Isomers
- 53. Which one of the following viruses used to be responsible for highly infectious disease Smallpox?
  - (a) Adenovirus
  - (b) Variola virus
  - (c) Aichi virus
  - (d) Coxsackie virus
- 54. Buoyancy is a/an
  - (a) upward pressure
  - (b) downward pressure
  - (c) downward force
  - (d) upward force

- Weight and mass of an object are defined with Newton's laws of motion. Which among the following is true?
  - (a) Weight is a constant of proportionality.
  - (b) Mass is a constant of proportionality.
  - (c) Mass is not a constant of proportionality.
  - (d) Weight is a universal constant.
- 56. Fundamental laws of physics require
  - (a) conservation of energy and non-conservation of charge.
  - (b) conservation of charge and non-conservation of linear momentum.
  - (c) conservation of charge and non-conservation of energy.
  - (d) conservation of energy, momentum and charge.
- 57. Work is said to be one Joule when a force of
  - (a) 4 N moves an object by 25 cm.
  - (b) 2 N moves an object by 1 m.
  - (c) 1 N moves an object by 1 cm.
  - (d) 1 N moves an object by 50 cm.
- 58. A uniform motion of a car along a circular path experiences
  - (a) a change in speed due to a change in its direction of motion.
  - (b) a change in velocity due to a change in its direction of motion.
  - (c) a change in momentum due to no change in its direction of motion.
  - (d) a constant momentum due to a change in its direction of motion.

- 59. Three equal resistors are connected in parallel configuration in a closed electrical circuit.

  Then the total resistance in the circuit becomes
  - (a) one-third of the individual resistance.
  - (b) two-third of the individual resistance.
  - (c) equal to the individual resistance.
  - (d) three times of the individual resistance.
- 60. Rutherford's alpha-particle  $(\alpha)$  scattering experiment was responsible for the discovery of which one of the following?
  - (a) Electron
  - (b) Proton
  - (c) Atomic Nucleus
  - (d) Neutron
- **61.** What is the maximum number of electrons in the M-Shell?
  - (a) 6
  - (b) 8
  - (c) 18
  - (d) 32
- 62. Chlorine occurs in nature in two isotopic forms of masses 35 u and 37 u in the ratio of 3:1 respectively. What is the average atomic mass of the Chlorine atom?
  - (a) 36·1 u
  - (b) 35.5 u
  - (c) 36.5 u
  - (d) 35·1 u

- **63.** Which one of the following elements' isotopes is used in the treatment of cancer?
  - (a) Iodine
  - (b) Sodium
  - (c) Cobalt
  - (d) Uranium
- **64.** To protect steel and iron from rusting, a thin layer of which one of the following metals is applied?
  - (a) Magnesium
  - (b) Zinc
  - (c) Aluminium
  - (d) Lead
- 65. Cinnabar is an ore of which one of the following?
  - (a) Copper
  - (b) Zinc
  - (c) Mercury
  - (d) Manganese
- 66. Imagine a current-carrying straight conductor with magnetic field of lines in anti-clockwise direction. Then the direction of current is determined by
  - (a) the Right-Hand Thumb rule and it would be in the downward direction.
  - (b) the Left-Hand Thumb rule and it would be in the downward direction.
  - (c) the Right-Hand Thumb rule and it would be in the upward direction.
  - the Left-Hand Thumb rule and it would be in the upward direction.

- 67. The device used to produce electric current is known as
  - (a) motor
  - (b) generator
  - (c) ammeter
  - (d) galvanometer
- **68.** Myopia is a defect in human vision where an image of a
  - (a) nearby object is focused beyond the retina.
  - (b) nearby object is focused before the retina.
  - (c) distant object is focused before the retina.
  - (d) distant object is focused beyond the retina.
- 69. Tyndall effect is a phenomenon of
  - (a) scattering of light by the colloidal particles.
  - (b) refraction of light by the colloidal particles.
  - (c) dispersion of light by dust particles.
  - (d) refraction of light by dust particles.
- 70. Twinkling of stars is primarily due to the atmospheric
  - (a) refraction
  - (b) reflection
  - (c) polarization
  - (d) dispersion

- 71. Dingko Singh, an Asian Games gold medallist, who died recently, was associated with which one of the following games?
  - (a) Swimming
  - (b) Boxing
  - (c) Archery
  - (d) Gymnastics
- 72. Who among the following is the lone Indian Cricketer included in the ICC Hall of Fame special inductions to mark the inaugural ICC World Test Championship Final?
  - (a) Dilip Vengsarkar
  - (b) Ravi Shastri
  - (c) Mohinder Amarnath
  - (d) Vinoo Mankad
- 73. Which one of the following nations is **not** a permanent member of G7?
  - (a) India
  - (b) Canada
  - (c) France
  - (d) Italy
- **74.** Operation Olivia, an initiative to protect Olive Ridley turtles, is undertaken by
  - (a) Indian Navy
  - (b) Indian Coast Guard
  - (c) Ministry of Environment, Forest and Climate Change
  - (d) Ministry of Earth Sciences
- 75. Who among the following is the winner of the French Open 2021 Men's Singles Final?
  - (a) Novak Djokovic
  - (b) Rafael Nadal
  - (c) Stefanos Tsitsipas
  - (d) Daniil Medvedev

- Economist Rebeca Grynspan, who recently 76. became the first woman to be appointed as the head of the United Nations Conference on Trade and Development (UNCTAD), hails
  - (a) Germany
  - (b) Poland
  - (c) Costa Rica
  - (**d**) Mexico
- 77. 'Belt and Road Initiative' is a foreign policy initiative of
  - (a) China
  - United States of America **(b)**
  - (c) Canada
  - (**d**) Japan
- **78.** Which one of the following is the theme of the International Day of Yoga 2021?
  - Yoga at home and yoga with family (a)
  - Yoga for climate action **(b)**
  - Yoga for well-being (c)
  - Yoga for peace (**d**)
- Kenneth Kaunda, who died recently at the **79.** age of 97, was the former president of
  - Brazil (a)
  - Mexico **(b)**
  - Zambia (c)
  - South Sudan (**d**)
- The maiden Indian Navy European Union Naval Force (IN-EUNAVFOR) Exercise (2021) 80. was conducted in
  - Gulf of Mannar (a)
  - Gulf of Aden (b)
  - Gulf of Khambhat (c)
  - Gulf of Aqaba (d)

- The pH value of Milk of Magnesia 81. approximately
  - Zero (a)
  - 7 (b)
  - 10 (c)
  - 14 (d)
- Which one of the following compounds is used in 'black and white' photography? 82.
  - AgF (a)
  - AgBr (b)
  - AgCl (c)
  - $Ag_2SO_4$ (d)
- What is the number of water molecules 83. present in a Ferrous Sulphate crystal?
  - 1 (a)
  - 3 (b)
  - (c) 5
  - 7 (d)
- 84. What is the colour of the precipitate obtained by passing CO<sub>2</sub> gas through lime water?
  - (a) Green
  - (b) Blue
  - (c) White
  - (d) Brown
- Which one of the following pairs of elements is 85. liquid at room temperature and at normal pressure?
  - $(\mathbf{a})$ Gallium and Bromine
  - (**b**) Mercury and Bromine
  - (c) Gallium and Mercury
  - (d) Gallium and Caesium

86.	Whic	ch one of the following methods can be							the foll	<sub>low</sub> ing p	lanets
	used	to separate following method	91.		. 1 .	no fi	rom ame	ong	the loss		
	used to separate anthracene from a mixture salt and anthracene?			Wh	ich o	in s	size?				
	(a)	and anthracene?		is la			,,,_				
	(b)	Distillation		(a)	Ea	rth					
		Sublimation		(b)	Ve	nus					
	(c)	Evaporation		(c)	Ma	ırs					
	( <b>d</b> )	$\operatorname{Chromatography}$		(d)	Me	rcur	у				
87.	Shoo	ets of plant ob									
	can l	ets of plant show upward movement and it be designated to be						4 JT	and sel	ect the c	correct
	(a)		92.	Mat	ch L	st I	with Las	11	and sele	w the li	sts:
	(b)	Negatively phototropic		ans	wer u	sing	the cod	e g	ven ber	ow the li	
	(c)	Positively chemotropic			List l				List II		
	(d)	Positively hydrotropic			Lisi I (Plac				(Featur	re)	
	( <b>u</b> )	Negatively geotropic			Mum			1.	Queen	of the	
88.	Whi	ch one of the following statements about		11.	112 0000				Arabia	n Sea	
	the r	process of photosynthesis is correct?		R.	Visal	han	atnam	2.	Bigges	t port of	India
	(a)	Chemical energy is served by the					<b>4022</b>			ocked ha	
	,,,,	Chemical energy is converted into light energy.			Chen						
	( <b>b</b> )	Carbon dioxide is oxidised to form carbohydrate.		D.	Koch	i		4.		port o n Coast	n the
	(c)	Water molecule splits into hydrogen and oxygen.		Cod	le :						
	<b>(d)</b>	Light energy is directly used to split			A		В	C	3	D	
		water.		(a)	2		4			2	
89.	How	are evergreen plants with woody stems		(a)	4		4	3		1	
		ng naked seed classified?		(b)	2		3	4		1	
	(a)	Angiosperms		(c)	1		3	4		2	
	<b>(b)</b>	Monocotyledons		( <b>d</b> )	1		4			2	
	(c)	Pteridophytes			-		4	3	ì	2	
	<b>(d)</b>	Gymnosperms									
00	3371. · .	ch one of the following tissues is known as	93.	Whi	ch or	e of	the foll	0337	ina :	crater l	
90.		packing tissue and found in xylem and		Indi	a ?		1011	LO W	ing is a	crater 1	ake in
				(a)	,						
	phloe			(a)	Lor	ar I	ake				
	(a)	Collenchyma		( <b>b</b> )	Sar	nbha	ır Lake				
	(b)	Parenchyma		(c)			Lake				
	(c)	Sclerenchyma		(3)							
	(d)	Vessels		( <b>d</b> )	Ver	nbar	ad Lak	e			

- 94. Fine-grained bed of ephemeral lake in a desert is also known as
  - (a) Playa
  - (b) Oasis
  - (c) Drumlin
  - (d) Natural levee
- **95.** Which one of the following factors does **not** affect the distribution of groundwater?
  - (a) Amount of precipitation
  - (b) Rate of evaporation
  - (c) Ability of the ground surface to allow water to infiltrate into the groundwater system
  - (d) Distance from the sea
- **96.** The Constitution (35<sup>th</sup> Amendment) Act of 1974 is related to which one of the following States?
  - (a) Mizoram
  - (b) Sikkim
  - (c) Nagaland
  - (d) Arunachal Pradesh
- 97. Which one of the following best describes the electoral system of India?
  - (a) First-Past-the-Post System
  - (b) Proportional Representation
  - (c) Mixed System
  - ' (d) General Ticket

- **98.** Which one of the following is a non-justiciable right?
  - (a) Right to adequate livelihood
  - (b) Right against exploitation
  - (c) Right of accused
  - (d) Right to life and personal liberty
- 99. Which one of the following is not a writ?
  - (a) Mandamus
  - (b) Habeas Corpus
  - (c) Certiorari
  - (d) Severability
- 100. Which one of the following is **not** a part of Fundamental Rights?
  - (a) Right to education
  - (b) Right to establish educational institutions by minorities
  - (c) Right to be conferred with titles
  - (d) Right against untouchability
- 101. Which one of the following is **not** a function of the Constitution of India?
  - (a) To ensure participation of good people in politics
  - (b) To guarantee a set of rights to citizens
  - (c) To define the power of the different organs of government
  - (d) To create conditions for a just society

- 102. Which one of the following statements about biodiversity is **not** correct?
  - (a) The term 'biodiversity' was coined by Walter G. Rosen in 1986.
  - (b) The term 'biodiversity hotspots' was coined by Norman Myers in 1988.
  - (c) The regions having richest biodiversity are called 'biodiversity hotspots'.
  - (d) More than 100 hotspots of biodiversity are identified in the world.
- 103. The Earth's atmosphere is mainly heated by which one of the following?
  - (a) Short wave solar radiation
  - (b) Reflected solar radiation
  - (c) Long wave terrestrial radiation
  - (d) Scattered solar radiation
- 104. Which one of the following is the correct sequence of layers as we move from the Earth's surface upwards?
  - (a) Troposphere, Stratosphere, Thermosphere, Mesosphere
  - (b) Troposphere, Stratosphere, Mesosphere, Thermosphere
  - (c) Thermosphere, Mesosphere, Stratosphere, Troposphere
  - (d) Stratosphere, Mesosphere, Troposphere, Thermosphere

- 105. Which one of the following is **not** a soil forming factor?
  - (a) Parent material
  - (b) Topography
  - (c) Climate
  - (d) Human habitation
- 106. Which one of the following best describes the Lithosphere?
  - (a) Upper and lower mantle
  - (b) Crust and core
  - (c) Crust and upper mantle
  - (d) Lower mantle and core
- 107. Which one of the following countries has the maximum time difference from Greenwich Mean Time (GMT)?
  - (a) India
  - (b) Nepal
  - (c) Sri Lanka
  - (d) Bhutan

- 108. Which one of the following is not a feature of 111. Cornea in human eye the Constitution of India?
  - It provides a set of basic rules. (a)
  - specifies It the the (b) power of Government.
  - It is the supreme law of the land. (c)
  - It specifies the supremacy of the (**d**) judiciary.
- 109. Which one of the following statements about the Attorney General of India is **not** correct?
  - He has the right of audience only in the (a) Supreme Court of India
  - He shall receive such remuneration as (b) the President may determine.
  - (c) He shall be qualified to be appointed as a Judge of the Supreme Court.
  - He shall give advice to the Government (**d**) of India on all legal matters.
- 110. Who among the following described the Directive Principles of State Policy as the novel feature of the Constitution of India?
  - (a) Jawaharlal Nehru
  - (b) Rajendra Prasad
  - (c) S.N. Mukherjee
  - (d) B.R. Ambedkar

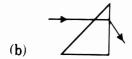
- - is a light sensitive screen. (a)
  - is a muscular diaphragm. (b)
  - contains blood vessels. (c)
  - is composed of proteins and cells. (d)
- 112. Power of a lens of focal length 25 cm is
  - +2.5 Dioptre (a)
  - +3 Dioptre (b)
  - +4 Dioptre (c)
  - +5 Dioptre (d)
- 113. What is the total number of chambers in the stomach of domestic animals like cattle, buffalo, goat and sheep?
  - Four (a)
  - Two
    - (c) One
    - (d) Three
- 114. Intestinal bacteria are main source of which one of the following vitamins?
  - (a) Vitamin E
  - (b) Vitamin C
  - Vitamin B<sub>12</sub> (c)
  - (d) Vitamin A
- 115. Which one of the following hormones is responsible for the development of female sexual characters?
  - (a) Prolactin
  - **(b)** Estrogen
  - Oxytocin (c)
  - (d) Progesterone

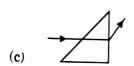
- distance 'u', image distance 'v' and focal length of mirror 'f may be applied to a plane mirror when
  - focal length goes to infinity. (a)
  - focal length goes to zero. (b)
  - image distance goes to zero. (c)
  - image distance goes to infinity. (d)
- 117. Nuclear energy is generated by
  - nuclear fission and its expression was proposed by Einstein.
  - nuclear fission and its expression was (b) proposed by Rutherford.
  - nuclear fusion and its expression was (c) proposed by Bohr.
  - nuclear fusion and its expression was (**d**) proposed by Heisenberg.
- 118. Reverberation is a phenomenon associated with a
  - multiple refraction of sound. (a)
  - (b) multiple reflection of sound.
  - single refraction of sound. (c)
  - single reflection of sound. (d)
- 119. Which among the following is true for propagation of sound waves?
  - Sound can travel in vacuum and it is a transverse wave in air.
  - (b) Sound cannot travel in vacuum and it is a longitudinal wave in air.
  - (c) Sound can travel in vacuum and it is a longitudinal wave in air.
  - (d) Sound cannot travel in vacuum and it is a transverse wave in air.

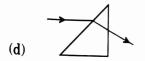
- 116. Spherical mirror formula relating an object | 120. A tennis ball is thrown in the vertically upward direction and the ball attains a maximum height of 20 m. The ball was thrown approximately with an upward velocity of
  - 8 m/s (a)
  - 12 m/s (b)
  - 16 m/s (c)
  - 20 m/s(d)
  - 121. An object of mass 2000 g possesses 100 J kinetic energy. The object must be moving with a speed of
    - 10·0 m/s (a)
    - 11·1 m/s (b)
    - 11.2 m/s (c)
    - 12·1 m/s (d)
  - 122. Which one of the following ions is not iso-electronic with F-?
    - O2-(a)
    - **(b)** Na\*
    - (c) Ne
    - (d) N-
  - 123. What is the total number of covalent bonds in methanol?
    - (a) 3
    - (b)
    - (e)
    - (d)

- 124. Which one of the following is the chemical formula of Plaster of Paris?
  - (a)  $CaSO_4 \cdot \frac{1}{2}H_2O$
  - (b)  $CaSO_4 \cdot 2 H_2O$
  - (c) CaSO<sub>4</sub>.5 H<sub>2</sub>O
  - (d)  $CaSO_4 \cdot 4 H_2O$
- 125. The unit of the ratio between thrust and impulse is same as that of
  - (a) frequency
  - (b) speed
  - (c) wavelength
  - (d) acceleration
- 126. Which one of the following figures correctly shows the path of a ray of light through a glass prism?









- 127. When a light beam falls on a triangular glass prism, a band of colours is obtained. Which one of the following statements is correct in this regard?
  - (a) Red light bends the most, as the refractive index of glass for red light is greatest.
  - (b) Red light bends the most, as the refractive index of glass for red light is lowest.
  - (c) Violet light bends the most, as the refractive index of glass for violet light is greatest.
  - (d) Violet light bends the most, as the refractive index of glass for violet light is lowest.
- 128. The image of an object formed by a plane mirror is
  - (a) erect, real and larger.
  - (b) erect, virtual and same size.
  - (c) inverted, virtual and same size.
  - (d) inverted, real and smaller.
- **129.** Which one of the following is **not** a conservative force?
  - (a) Frictional force
  - (b) Electric force
  - (c) Gravitational force
  - (d) Spring force
- 130. A negative work is done when an applied forceF and the corresponding displacement S are
  - (a) perpendicular to each other.
  - (b) parallel to each other.
  - (c) anti-parallel to each other.
  - (d) equal in magnitude.

- 131. Which of the following statements about the Indian Councils Act of 1861 is/are correct?
  - It enlarged the Governor General's 1. Council for the purpose of making laws.
  - not General was Governor 2. The authorised to increase the number of members.

Select the correct answer using the code given below:

- (a) 1 only
- 2 only (**b**)
- Both 1 and 2 (c)
- Neither 1 nor 2 (**d**)
- 132. Which one of the following statements about Tattvabodhini Patrika is correct?
  - It promoted a systematic study of  $(\mathbf{a})$ India's past in the Bengali language.
  - It promoted a systematic study of **(b)** India's past through Sanskrit sources.
  - It promoted a systematic study of (c) India's past through Persian sources.
  - It promoted a systematic study of (**d**) India's past through Western sources.
- 133. In which one of the following years did the British demarcate a large area of land as Damin-i-koh for settling the Santhals?
  - (a) 1810
  - **(b)** 1793
  - (c) 1885
  - (**d**) 1832
- 134. The Tropic of Cancer does not pass through which one of the following States?
  - (a) Manipur
  - (b) West Bengal
  - (c) Guiarat
  - (d) Jharkhand

- 135. Which of the following pairs of crop and product is/are correctly matched?
  - Food crop

: Ragi

Cash crop 2.

Jute

Plantation crop: Coconut 3.

Select the correct answer using the code given below:

- 1 only (a)
- 2 and 3 only (b)
- 1, 2 and 3 (c)
- 3 only (d)
- 136. Which one of the following coalfields is not located in Jharkhand?
  - Jharia (a)
  - Ramgarh (b)
  - Deogarh (c)
  - (d) Umaria
- 137. Which one of the following is the longest parallel of latitude?
  - (a) **Tropic of Cancer**
  - (b) Tropic of Capricorn
  - (c) **Arctic Circle**
  - (**d**) **Equator**
- 138. The periodic rise and fall of ocean water in response to gravitational forces is called
  - (a) Current
  - (b) Waves
  - (c) Tides
  - (d) Tsunami

- 139. Which of the following statements about the first Indian Factory Act passed in 1881 is/are correct?
  - 1. The Act dealt primarily with the problem of child labour.
  - The Act laid down that children between
     years and 12 years of age would not work for more than 9 hours a day.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 140. Which of the following statements about Mahatma Gandhi's anti-untouchability campaign is/are correct?
  - 1. The All India Harijan Sevak Sangh was founded for this purpose.
  - 2. The campaign was to root out untouchability, since it did not enjoy the sanction of the Hindu shastras.

Select the correct answer using the code given below :

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 141. The founders of the *Paramhansa Mandali* founded in Maharashtra believed in which one of the following?
  - (a) Social distancing along caste lines
  - (b) Glorification of caste system
  - (c) Forbidding widow remarriage
  - (d) One God and in breaking caste rules

- 142. Which one of the following statements about the *ishtahars* issued during the Revolt of 1857 is correct?
  - (a) They glorified the Muslim rule in India.
  - (b) They glorified the co-existence of different communities under the Mughal Empire.
  - (c) They glorified the message of Islam.
  - (d) They glorified the role of Queen Victoria.
- 143. During the Industrial Revolution, who among the following designed the 'flying shuttle loom'?
  - (a) Samuel Crompton
  - (b) Edmund Cartwright
  - (c) John Kay
  - (d) Richard Arkwright
- 144. Match List I with List II and select the correct answer using the code given below the lists:

B. C.	List I (Dam) Hirakud Panchet Kosi	1. 2. 3.	List II (State) Gujarat Bihar Odisha
D.	Ukai	٥.	Jharkhand

#### Code:

	A	В	$\mathbf{C}$	D
(a)	3	4	2	1
(b)	3	2	4	1
(c)	1	2	4	3
( <b>d</b> )	1	4	2	3

- 145. Which one of the following features is the 149. Which of the following statements about the result of erosion and deposition work of a river?
  - (a) Pothole
  - **(b)** Oxbow lake
  - (c) Levee
  - (d) Rapid
- 146. Which one of the following is not a feature of agriculture in India?
  - (a) Subsistence agriculture
  - **(b)** Pressure of population on agriculture
  - (c) Dependence upon Monsoon
  - (**d**) Predominance of cash crops
- 147. Which one of the following is not a specified Sub-Mission of the National Livestock Mission?
  - Livestock development (a)
  - **(b)** Pig development in north-western region
  - (c) Fodder and feed development
  - Skill development, technology transfer (**d**) and extension
- 148. Who among the following wrote the famous text 'A Discourse on Political Economy'?
  - Montesquieu (a)
  - (b) Voltaire
  - (c) Rousseau
  - (d) Adam Smith

- resolution adopted in the Karachi session of the Indian National Congress with regard to fundamental rights and economic policy is/are correct?
  - It was opposed by Ambalal Sarabhai. 1.
  - Its 20 points included demands for civil 2. liberties and adult suffrage.

Select the correct answer using the code given below:

- 1 only (a)
- (b) 2 only
- Both 1 and 2 (c)
- Neither 1 nor 2 (d)
- 150. Which of the following statements about the Law Commission headed by Lord Macaulay is/are correct?
  - It attempted to codify the laws. 1.
  - 2. It was opposed to uniform system of Courts.

Select the correct answer using the code given below:

- (a) 1 only
- **(b)** 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2