

## 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 and 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 should be indicated as (d).

11. Opening his letters, reading them carefully and sending for his clerk,  
(a) (b)  
he dictated answers with them. No error.  
(c) (d)
12. He was my school-friend, but becoming a great man,  
(a) (b)  
he has grown proud enough to forget his old friends. No error.  
(c) (d)
13. Rabindranath Tagore, a Nobel laureate and the author of the national anthem,  
(a) (b)  
found Shantiniketan. No error.  
(c) (d)
14. The art of printing was introduced into England during the reign of Edward IV  
(a) (b)  
by William Caxton, a native of Kent. No error.  
(c) (d)
15. From thirty years he devoted himself to public affairs without taking a holiday.  
(a) (b) (c)  
No error.  
(d)
16. If Ramesh will be promoted he will get a higher salary. No error.  
(a) (b) (c) (d)
17. My brother goes to the office five day week. No error.  
(a) (b) (c) (d)

18. If you lend Mohan a pen he will lend it to someone else  
 (a) (b)  
and never you will get it back. No error.  
~~(c)~~ (d)
19. One of most widely spread bad habits is the use of tobacco. No error.  
~~(a)~~ (b) (c) (d)
20. A great part of Arabia is desert. No error.  
~~(a)~~ (b) (c) (d)

### ANTONYMS

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

21. Ramesh is a very dubious character.  
 (a) shady  
 (b) suspicious  
~~(c) trustworthy~~  
 (d) doubtful
22. Do not indulge in unmindful activities, please.  
~~(a) vigilant~~  
 (b) careless  
 (c) stupid  
 (d) fatuous
23. He is suffering from a curable disease.  
 (a) remediable  
 (b) treatable  
~~(c) terminal~~  
 (d) operable
24. He was born on a very auspicious day.  
 (a) propitious  
 (b) fortunate  
~~(c) ominous~~  
 (d) opportune
25. He has deeper hostility towards Mohan.  
 (a) animosity  
 (b) belligerence  
 (c) malice  
~~(d) friendship~~
26. His life is rather monotonous.  
~~(a) exciting~~  
 (b) dreary  
 (c) tedious  
 (d) uneventful



27. Macbeth is a morally repulsive character.

- (a) abominable
- ~~(b) attractive~~
- (c) obnoxious
- (d) ugly

28. The serene beauty of Kashmir had a soothing effect on his mind.

- ~~(a) placid~~
- (b) pleasing
- (c) tranquil
- ~~(d) turbulent~~

29. Life is transient in nature.

- (a) brief
- (b) momentary
- ~~(c) eternal~~
- (d) short-lived

30. Sohan is a vain person.

- ~~(a) modest~~
- (b) arrogant
- (c) conceited
- (d) proud

### IDIOMS AND PHRASES

**Directions :** Given below are some idioms/phrases followed by four alternative meanings to each. Choose the response (a), (b), (c) or (d) which is the most appropriate expression.

31. A dark horse

- (a) a black coloured horse
- ~~(b) a person who wins a race or competition although no one expected him to~~
- (c) a person who keeps secrets
- (d) an ignorant person

32. A show-stopper

- (a) someone who stops the show
- (b) someone who organizes the show
- ~~(c) a performance that is extremely good~~
- (d) a fashionable person

33. A jack of all trades

- ~~(a) someone who has many skills~~
- ~~(b) a confident and not very serious young man~~

- (c) someone who has hit the jackpot
- (d) a great businessman

34. Fight tooth and nail

- (a) to quarrel with someone
- (b) to attack someone with a lot of force
- (c) to try hard to prevent something from happening
- ~~(d) to try very hard to achieve something~~

35. Fair and square

- ~~(a) in an honest way~~
- (b) in a critical way
- (c) neither very good nor very bad
- (d) in a foolish way



### FILL IN THE BLANK

**Directions :** Each of the following sentences in this section has a blank space and four words or group of words given after the sentence. Select the word or group of words you consider most appropriate for the blank space and indicate your response on the Answer Sheet accordingly.

36. \_\_\_\_\_ forests prevent erosion.  
(a) Lean  
(b) Dense  
(c) Sparse  
(d) Tidy
37. Three people were arrested and an illegal arms unit was \_\_\_\_\_ by the police in a raid.  
(a) revealed  
(b) searched  
(c) discovered  
(d) busted
38. A woman \_\_\_\_\_ got into the car and \_\_\_\_\_.  
(a) drove off  
(b) broke down
- (c) rode in  
(d) drove in
39. The lecture was not very interesting. In fact I \_\_\_\_\_ in the middle of it.  
(a) showed off  
(b) put off  
(c) dozed off  
(d) plugged off
40. The cops \_\_\_\_\_ murder by kin.  
(a) suspect  
(b) afford  
(c) manage  
(d) administer

### ORDERING OF SENTENCES

**Directions :** In this section each item consists of six sentences of a passage. The first and sixth sentences are given in the beginning as S1 and S6. The middle four sentences in each have been jumbled up and labelled P, Q, R and S. You are required to find the proper sequence of the four sentences and mark your response accordingly on the Answer Sheet.

41. S1: We do not know what to do with our knowledge.  
S6: In the course of time they may rule over us altogether.  
P : For example, we are unable to manage our machines.  
Q : We already find it difficult to do without machines.  
R : Machines should be fed properly and waited upon attentively; otherwise they refuse to work or cause destruction.
- S : Science has given us superhuman powers, which we do not use properly.  
The proper sequence should be  
(a) S P R Q  
(b) P S Q R  
(c) Q R P S  
(d) S R P Q



144. Which Indian businessman favoured 'healthy capitalism' in helping Gandhiji to work towards a 'common object'?

~~(a)~~ Ghanshyam Das Birla

(b) Ambalal Sarabhai

(c) Sir Biren Mookerjee

(d) T. T. K. Krishnamachari

145. The art piece "In Memoriam" was a creation of which one of the following European painters?

(a) Thomas Jones Barker

~~(b)~~ Joseph Noel Paton

(c) Thomas Daniell

(d) Charles D'Oyly

146. Which one of the following can charge an insulator?

(a) Current electricity

~~(b)~~ Static electricity

~~(c)~~ Magnetic field

(d) Gravitational field

147. At 20°C, the speed of sound in water is approximately

~~(a)~~ 330 m/s

(b) 800 m/s

~~(c)~~ 1500 m/s

(d) 5000 m/s

148. Which one of the following could the melting point of iron?

(a) 25°C

(b) 37°C

~~(c)~~ 500°C

~~(d)~~ 1500°C

149. Let us consider a copper wire having radius  $r$  and length  $l$ . Let its resistance be  $R$ . If the radius of another copper wire is  $2r$  and the length is  $l/2$  then the resistance of this wire will be

(a)  $R$

(b)  $2R$

(c)  $R/4$

~~(d)~~  $R/8$

150. Basic scientific principle behind nuclear reactor is

(a) Nuclear fusion

(b) Controlled nuclear fusion

(c) Uncontrolled nuclear fission

~~(d)~~ Controlled nuclear fission



137. "Campos" and "Llanos", Tropical Savanna grasslands are generally found in

- (a) Australia
- (b) Central Africa
- ~~(c)~~ South America
- (d) East Asia

138. "Viticulture" is a common feature of which one of the following Australian cities ?

- ~~(a)~~ Adelaide
- (b) Darwin
- (c) Hobart
- (d) Brisbane

139. "Shamal" warm and dry wind is a "Local" wind found in

- (a) East Asia
- (b) West Coast of Africa
- (c) Sahara of Africa
- ~~(d)~~ Mesopotamia

140. "Inversion of Rainfall" is associated with

- ~~(a)~~ Orographic rainfall
- (b) Convectional rainfall
- (c) Cyclonic rainfall (Tropical)
- (d) Cyclonic rainfall (Temperate)

141. Who was the author of the 'History of British India' ?

- (a) Charles Grant
- (b) John Stuart Mill
- ~~(c)~~ James Mill
- (d) William Jones

142. The Azamgarh Proclamation of August 25, 1857 stressed on which one of the following issues ?

- (a) Hindu-Muslim divide
- (b) Support to the English Government
- ~~(c)~~ The return of the Badshahi
- (d) The imposition of heavy Juma (revenue demand)

143. Which Viceroy had made the observation, "It's a beautiful world if it wasn't for Gandhi ....." ?

- (a) Lord Irwin
- (b) Lord Wavell
- (c) Lord Mountbatten
- ~~(d)~~ Lord Willingdon



The following 3 (three) items consist of two statements, Statement I and Statement II. Examine these two statements carefully and select the correct answer using the code given below :

Code :

- (a) Both the statements are individually true and Statement II is the correct explanation of Statement I
- (b) Both the statements are individually true and Statement II is NOT the correct explanation of Statement I
- (c) Statement I is true but Statement II is false
- (d) Statement I is false but Statement II is true

132. Statement I : Abul Fazl shaped, represented and articulated the ideas associated with the reign of Akbar

Statement II : The qualities of Abul Fazl impressed Akbar who found the former suitable as an adviser and spokesperson for his policies

133. Statement I : The Kisan manifesto adopted by the All India Kisan Sabha in August 1936 contained radical demands

Statement II : The All India Kisan Sabha was a part of the Congress and maintained close relationship with the Provincial Congress Committees

134. Statement I : The British ruled India through a modern bureaucracy headed by the Indian Civil Service whose members were recruited through merit based on open competition

Statement II : The Indian Civil Service was based on the wholehearted participation of Indians

135. Which one of the following is NOT true in reference to Air mass ?

- ~~(a) Air mass forms either in tropical or in polar region~~
- (b) Air mass develops on continent as well as over ocean
- (c) Air mass develops in a cyclonic condition
- (d) Air mass changes the weather conditions

136. National Water Academy, a centre of excellence in training and capacity building in water resource, is located at

- (a) New Delhi
- (b) Kolkata
- ~~(c) Pune~~
- (d) Chennai



125. The equivalent weight of oxalic acid in  $C_2H_2O_4 \cdot 2H_2O$  is

- (a) 45
- ~~(b) 63~~
- (c) 90
- ~~(d) 126~~

126. Which one of the following is NOT a west flowing river ?

- (a) Periyar
- (b) Bharatpuzha
- (c) Pamba
- ~~(d) Tamraparni~~

127. Which one of the following rivers was earlier known as "Vitasta" ?

- ~~(a) Tista~~
- ~~(b) Jhelum~~
- (c) Tungabhadra
- (d) Bharatpuzha

128. River Sarda drains in the Northern Plains of Uttar Pradesh. Before entering in the Plains, Sarda is known as

- ~~(a) Saraswati~~
- (b) Bhagirathi
- ~~(c) Kali~~
- (d) Pindar

129. "Mission Indradhanush" is related to

- (a) Bullet train project
- (b) Agriculture development
- (c) Women empowerment
- ~~(d) Full immunization~~

130. Which of the following is/are environmental effects of Rotation of Earth ?

1. Daily or diurnal rhythm in day light and air temperature
2. Flow path of both air and water are turned consistently in a clockwise direction
3. The movement of the tides

Select the correct answer using the code given below :

- ~~(a) 1 and 2 only~~
- (b) 1 and 3 only
- ~~(c) 1, 2 and 3~~
- (d) 3 only

131. Who among the following historians have described the Quit India movement as a 'spontaneous revolution' ?

- (a) Gordon Johnson
- (b) David Arnold
- ~~(c) F G Hutchins~~
- (d) Peter Robb



119. Which of the following statements is/are correct ?

1. In 1948, Burma was admitted to the United Nations and immediately supported the USA in the Cold War
2. In 1948, Burma joined the United Nations but refused to denounce China as the aggressor in the Korean War

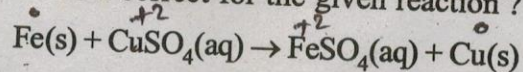
Select the correct answer using the code given below :

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

120. Who among the following presented 'The April Theses' to the Russian people in 1917 ?

- ☒ (a) Stalin
- (b) Trotsky
- (c) Bukharin
- ☒ (d) Lenin

121. Which one of the following statements is NOT correct for the given reaction ?



- (a) Iron is the reducing agent
- (b) The solution turns green in colour after the reaction

(c) Copper is a more reactive than iron

☒ (d) The reaction is an example redox reaction

122. Which one of the following is organic acid ?

- ☒ (a) Hydrochloric acid
- (b) Nitric acid
- ☒ (c) Acetic acid
- (d) Sulphuric acid

123. Dinitrogen ( $\text{N}_2$ ) and dioxygen ( $\text{O}_2$ ) are the main constituents of air but they do not react with each other to form oxides of nitrogen because

- (a) the reaction requires initiation by a catalyst
- (b) oxides of nitrogen are unstable
- ☒ (c) the reaction is endothermic and requires very high temperature
- (d) the stoichiometry of  $\text{N}_2$  and  $\text{O}_2$  in air is not ideal for the reaction to take place

124. Who among the following has explained the phenomenon of photoelectric effect ?

- (a) Max Planck
- ☒ (b) Albert Einstein
- (c) Neils Bohr
- (d) Ernest Rutherford



114. Brahmaputra and Indus rivers are antecedent rivers. Which one of the following may be the true definition of an antecedent drainage ?

- (a) Which follows the initial slope of the Himalaya
- ~~(b) Which existed before the Himalayan range came into existence~~
- (c) Which followed the dip or rock beds of the Himalaya
- (d) Which followed the strikes of rock beds of the Himalaya

115. The Karachi resolution of Congress in 1931 advocated which one of the following issues ?

- (a) State shall not own or control key industries and services
- (b) State shall handover the key industries and services to the Indian business groups
- (c) State should allow the Indian business group to invest fifty per cent of the capital
- ~~(d) State shall own or control key industries and services~~

116. The treaty of Schonbrunn (1809) was signed after which one of the following battles ?

- (a) Battle of Austerlitz
- (b) Battle of Tilsit
- ~~(c) Battle of Wagram~~
- (d) Battle of Lisbon

117. Which of the following statements about The New Model Unions is/are correct ?

- 1. The New Model Unions were formed in the 1850s
- 2. The New Model Unions were formed in the 1880s
- 3. The New Model Unions comprised a Labour Party idea
- 4. The New Model Unions excluded women in the 1920s

Select the correct answer using the code given below :

~~(a) 1~~

(b) 2

(c) 3 and 4

(d) 3 only

118. The Truman Doctrine of 1947 was announced to achieve which one of the following ?

~~(a) Containment of the USSR~~

(b) Increasing agricultural production in the USA

(c) Offering friendship to Europe

(d) Strengthening the UNO



107. The formula for conversion between Fahrenheit and Celsius is  
 $^{\circ}\text{F} = \text{X} + (1.8 \times ^{\circ}\text{C})$   
What is factor X?

~~(a)~~ 32

(b) 22

(c) 98

(d) 42

108. When a beam of white light passes through a glass prism, the colour of light beam that deviates the least is

(a) Blue

~~(b)~~ Red

(c) Green

(d) Violet

109. LIGO stands for

~~(a)~~ Laser Interferometer Gravitational wave Observatory

(b) Light Interferometer Gravitational wave Observatory

(c) Light Induced Gravity Observatory

(d) Laser Induced Gaseous Optics

110. A fuse wire must be

~~(a)~~ conducting and of low melting point

(b) conducting and of high melting point

(c) insulator and of high melting point

(d) insulator and of low melting point

111. Kamarajar Port was commissioned in 2001 to handle thermal coal requirements. It is situated along the coast of which Indian State?

(a) Andhra Pradesh

(b) Odisha

~~(c)~~ Tamil Nadu

~~(d)~~ Karnataka

112. Which one of the following Union Territories of India is the smallest in terms of geographical area?

~~(a)~~ Daman and Diu

(b) Chandigarh

(c) Dadra and Nagar Haveli

~~(d)~~ Lakshadweep

113. Which one of the following can be said to be essentially related to 'Polar Front Theory'?

(a) Anticyclone

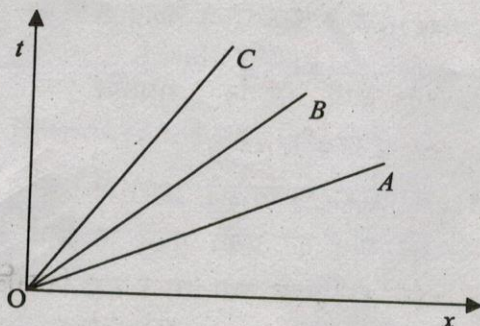
(b) Tropical Cyclone

~~(c)~~ Temperate Cyclone

~~(d)~~ Inter Tropical Convergence



102.



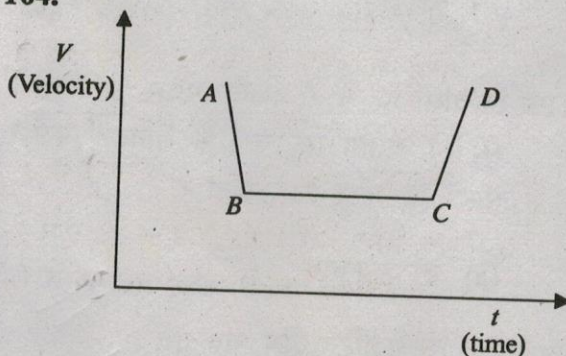
The figure shown above gives the time ( $t$ ) versus position ( $x$ ) graphs of three objects  $A$ ,  $B$  and  $C$ . Which one of the following is the correct relation between their speeds  $V_A$ ,  $V_B$  and  $V_C$ , respectively at any instant ( $t > 0$ )?

- (a)  $V_A < V_B < V_C$
- ~~(b)  $V_A > V_B > V_C$~~
- (c)  $V_A = V_B = V_C \neq 0$
- (d)  $V_A = V_B = V_C = 0$

103. 1 dyne (a unit of force in CGS system) equals to

- (a)  $10^3 \text{ g cm/s}^2$
- (b)  $10^{-3} \text{ g cm/s}^2$
- (c)  $10^5 \text{ kg m/s}^2$
- ~~(d)  $10^{-5} \text{ kg m/s}^2$~~

104.



In the given velocity ( $V$ ) versus time ( $t$ ) graph, accelerated and decelerated motions are respectively represented by line segments

- (a)  $CD$  and  $BC$
- (b)  $BC$  and  $AB$
- ~~(c)  $CD$  and  $AB$~~
- (d)  $AB$  and  $CD$

105. Which one of the following statements regarding a thermos flask is correct?

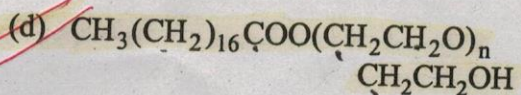
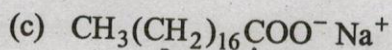
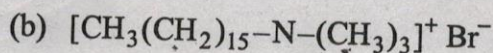
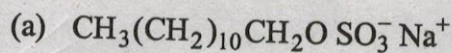
- (a) The walls of flask are separated by vacuum and made of glass which is a poor conductor of heat
- (b) The glass walls themselves have shiny surfaces
- ~~(c) The surface of inner wall radiates a good amount of heat and the surface of outer wall absorbs some of the heat that is radiated from the inner wall~~
- (d) The cork supports are poor conductors of heat

106. 'Black hole' is a

- (a) huge black star which has zero acceleration due to gravity on its surface
- (b) star which has moderate acceleration due to gravity on its surface
- ~~(c) star which has collapsed into itself and has large acceleration due to gravity on its surface~~
- (d) star which has collapsed into itself and has zero acceleration due to gravity on its surface



96. Which one of the following is NOT a synthetic detergent ?



97. Which one of the following is an example of a clean fuel ?

(a) Coke

~~(b) Propane~~

(c) Petrol

(d) Wax

98. Which one of the following metals does NOT react with cold water ?

(a) Calcium (Ca)

(b) Potassium (K)

~~(c) Magnesium (Mg)~~

(d) Sodium (Na)

99. In which of the following pairs are ions isoelectronic ?

(a)  $\text{Mg}^{2+}$ , Ar

~~(b)  $\text{Na}^+$ ,  $\text{O}^{2-}$~~

(c)  $\text{Al}^{3+}$ ,  $\text{Cl}^-$

(d)  $\text{K}^+$ , Ne

100. Which one of the following is used as a binder in paints ?

(a) Titanium dioxide

(b) Novolac

(c) Phthalocyanine

~~(d) Silicones~~

101. The Sun is seen little before it rises and for a short while after it sets. This is because of

(a) total internal reflection

(b) atmospheric refraction

~~(c) apparent shift in the direction of Sun~~

(d) dispersion



90. Which one of the following organisms represents the primary consumer category in an ecosystem ?

- ~~(a)~~ Caterpillar
- (b) Crabapple tree
- (c) Frog
- (d) Sparrowhawk

91. Spring tides refer to

- ~~(a)~~ greatest difference in the sea level at high and low tides
- (b) lowest difference in the sea level at high and low tides
- (c) no difference in the sea level at high and low tides
- (d) counteraction of gravitational pull of the Sun to that of Moon

92. Which one of the following energy is stored in the links between the atoms ?

- (a) Nuclear energy
- ~~(b)~~ Chemical energy
- (c) Potential energy
- (d) Thermal energy

93. The light energy escaping from the Sun can be spread by

- ~~(a)~~ a shower of rain drops
- (b) a plane mirror
- (c) a convex lens
- (d) a combination of a convex lens and a concave lens

94. The correct sequence of energy transfer that occurs when an apple falls to the ground is

- (a) Gravitational potential energy - heat energy to air → kinetic energy → heat energy to ground and apple → sound energy
- (b) Gravitational potential energy - sound energy → kinetic energy - heat energy to air → heat energy to ground and apple
- ~~(c)~~ Gravitational potential energy - kinetic energy → heat energy to air → heat energy to ground and apple → sound energy
- (d) Gravitational potential energy - kinetic energy → sound energy - heat energy to air → heat energy to ground and apple

95. Which one of the following minerals is used as a fuel in nuclear power stations ?

- (a) Bauxite
- (b) Quartz
- (c) Feldspar
- ~~(d)~~ Pitchblende



82. Which one of the following ocean currents is NOT a cold ocean current ?

- (a) Canary current
- (b) California current
- ~~(c) Kuroshio current~~
- (d) Oyashio current

83. What is the time gap in occurrence of two successive tides at a given place on the ocean surface ?

- (a) 12 hours
- ~~(b) 12 hours 26 minutes~~
- (c) 24 hours
- (d) 24 hours 52 minutes

84. Tooth enamel is made up of which one of the following calcium compounds ?

- (a) Calcium carbonate
- (b) Calcium sulphate
- (c) Calcium hydroxide
- ~~(d) Calcium phosphate~~

85. Suppose there are two planets, 1 and 2, having the same density but their radii are  $R_1$  and  $R_2$  respectively, where  $R_1 > R_2$ . The accelerations due to gravity on the surface of these planets are related as

- (a)  $g_1 > g_2$
- ~~(b)  $g_1 < g_2$~~
- (c)  $g_1 = g_2$
- (d) Can't say anything

86. Which one of the following organelles does NOT possess nucleic acid ?

- (a) Nucleolus
- ~~(b) Chloroplast~~
- (c) Ribosome
- ~~(d) Plasma Membrane~~

87. Which one of the following organelles does NOT possess its own genetic material encoding proteins ?

- ~~(a) Ribosome~~
- (b) Nucleus
- (c) Mitochondria
- (d) Chloroplast

88. Which one of the following is NOT a component of conducting tissue in plants ?

- (a) Fibres
- ~~(b) Tracheids~~
- ~~(c) Pericycle~~
- (d) Sieve tubes

89. Which one of the following organisms has vascular tissues ?

- (a) *Cladophora*
- (b) *Penicillium*
- ~~(c) *Marsilea*~~
- (d) *Anabaena*

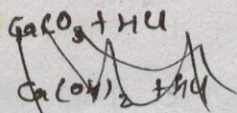


76. On exposure to moist air, copper gains a green coat on its surface due to formation of which one of the following compounds ?

- (a) Copper carbonate
- ~~(b) Copper oxide~~
- (c) Copper sulphate
- (d) Copper nitrate

77. Which one of the following will NOT produce carbon dioxide on reacting with an aqueous solution of hydrochloric acid ?

- ~~(a) Limestone~~
- (b) Quick Lime
- (c) Chalk
- (d) Marble



78. Which one of the following substances is NOT a mixture ?

- ~~(a) Ice~~
- (b) Ice-cream
- (c) Air
- (d) Honey

79. Which one of the following is an example of Salt-Crystal growth ?

- ~~(a) Chemical weathering~~
- (b) Physical weathering
- (c) Biological weathering
- (d) Bio-chemical weathering

80. Which one of the following is the correct sequence of proved coal reserves in the Indian States in decreasing order ?

- (a) Jharkhand, Chhattisgarh, Odisha, West Bengal
- ~~(b) Jharkhand, Odisha, Chhattisgarh, West Bengal~~
- (c) Odisha, West Bengal, Jharkhand, Chhattisgarh
- (d) Odisha, Chhattisgarh, West Bengal, Jharkhand

81. Consider the following statements relating to Richter scale :

1. It was devised in 1935 by Charles F. Richter
2. It describes the quantity of energy released by a single earthquake
3. Richter Scale has no upper limit

Which of the statements given above is/are correct ?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- ~~(d) 1, 2 and 3~~



70. Which one of the following statements regarding Cholera is correct?

- (a) Cholera is a disease that causes loss of memory
- (b) Cholera is a disease of muscles due to consumption of alcohol
- ~~(c) Cholera is a disease due to consumption of contaminated food or water~~
- (d) Cholera is a genetic disease

71. Two metallic wires  $A$  and  $B$  are made using copper. The radius of wire  $A$  is  $r$  while its length is  $l$ . A dc voltage  $V$  is applied across the wire  $A$ , causing power dissipation,  $P$ . The radius of wire  $B$  is  $2r$  and its length is  $2l$  and the same dc voltage  $V$  is applied across it causing power dissipation  $P_1$ . Which one of the following is the correct relationship between  $P$  and  $P_1$ ?

- ~~(a)  $P = 2P_1$~~
- (b)  $P = P_1/2$
- (c)  $P = 4P_1$
- (d)  $P = P_1$

72. Consider the following statements about a solenoid:

1. The magnetic field strength in a solenoid depends upon the number of turns per unit length in the solenoid
2. The magnetic field strength in a solenoid depends upon the current flowing in the wire of the solenoid
3. The magnetic field strength in a solenoid depends upon the diameter of the solenoid

Which of the statements given above are correct?

- ~~(a) 1, 2 and 3~~
- (b) 1 and 3 only
- (c) 2 and 3 only
- ~~(d) 1 and 2 only~~

73. Light year is a unit of measurement of

- ~~(a) very large distances~~
- (b) time interval in years
- (c) amount of light received on earth in a year
- (d) mass of atoms

74. The focal length of the objective lens of a telescope is 50 cm. If the magnification of the telescope is 25, then the focal length of the eye-piece is

- (a) 12.5 cm
- (b) 5 cm
- ~~(c) 2 cm~~
- (d) 10 cm

75. Which one of the following forces is non-central and non-conservative?

- ~~(a) Frictional force~~
- (b) Electric force
- (c) Gravitational force
- (d) Mechanical force



64. Which of the following pairs of old names and new names of islands in India is/are correctly matched ?

1. Ross Island : Shaheed Dweep
2. Neil Island : Netaji Subhas Chandra Bose Dweep
3. Havelock : Swaraj Dweep Island

Select the correct answer using the code given below :

- (a) 1, 2 and 3  
(b) 2 and 3 only  
(c) 1 and 2 only  
(d) 3 only

65. Who among the following was posthumously conferred with the Ashoka Chakra, India's highest peacetime gallantry award, in 2019 ?

- (a) Jyoti Prakash Nirala  
(b) Nazir Ahmad Wani  
(c) Hangpan Dada  
(d) Mohan Nath Goswami

66. As per the code of the nomenclature, which one of the following is the correct way of writing a biological name ?

- (a) *Amoeba Proteus*  
(b) *Amoeba proteus*  
(c) *amoeba proteus*  
(d) *Amoeba Proteus*

67. Which one of the following statements regarding Electrocardiogram is correct ?

- (a) Electrocardiogram is graphical representation of electrical activity of cornea  
(b) Electrocardiogram is graphical representation of activity of kidney  
(c) Electrocardiogram is graphical representation of activity of brain  
(d) Electrocardiogram is graphical representation of electrical activity of heart

68. Which one of the following statements regarding Penicillin is correct ?

- (a) Penicillin resistant bacteria can store this antibiotic in vacuole  
(b) Penicillin resistant bacteria can degrade this antibiotic by an enzyme called  $\beta$ -lactamase  
(c) Penicillin resistant bacteria can degrade this antibiotic by an enzyme called lactic acid dehydrogenase  
(d) Penicillin is not absorbed by bacteria; so most bacteria are resistant

69. Which one of the following organelles of mammalian cell is rich in hydrolytic enzymes ?

- (a) Mitochondria  
(b) Ribosomes  
(c) Lysosome  
(d) Nucleus



57. IMBEX is a joint exercise conducted regularly between Armies of India and

- (a) Malaysia
- (b) Maldives
- (c) Mauritius
- ~~(d) Myanmar~~

58. Who among the following was awarded The Hindu Prize in Fiction category for the year 2018 ?

- ~~(a) Neelum Saran Gour~~
- (b) N Kalyan Raman
- (c) Manoranjan Byapari
- (d) Arunav Sinha

59. Who among the following was appointed as head of the seven member committee to look into revenue shortfall being faced by the states after the GST roll-out in India and suggest steps for augmenting collections ?

- (a) Himanta Biswa Sharma
- (b) Thomas Isaac
- ~~(c) Sushil Modi~~
- (d) Capt Abhimanyu

60. The 15th Pravasi Bharatiya Divas 2019 was held in

- (a) New Delhi
- (b) Gandhi Nagar
- (c) Prayagraj
- ~~(d) Varanasi~~

61. Which one of the following cities was named by UNESCO as World Capital of Architecture for 2020 ?

- (a) Tokyo
- (b) Johannesburg
- ~~(c) Rio de Janeiro~~
- (d) New Delhi

62. Who among the following was named ICC's emerging player of the year 2018 ?

- ~~(a) Rishabh Pant~~
- (b) Josh Hazlewood
- (c) Hasan Ali
- (d) Mustafizur Rahman

63. India's first private sector Howitzer gun-making unit is located at

- ~~(a) Jamshedpur~~ Wrong
- (b) Kolkata
- ~~(c) Hazira~~ Right
- (d) Gwalior



## PART - B

51. An Election Commissioner can be removed from office on the recommendation of
- (a) The Chief Justice of India
  - ☒ (b) The Chief Election Commissioner
  - (c) The President of India
  - (d) The Parliament
52. Which one of the following statements regarding the Rajya Sabha is NOT correct ?
- (a) Its members are elected by the elected members of the Legislative Assembly of a State
  - (b) The election follows the system of proportional representation by means of a single transferable vote
  - (c) 1/3rd of its members retire after every two years
  - ☒ (d) It is a permanent body, but can be dissolved earlier by the President
53. Fundamental right guaranteed under which one of the following Articles of the Constitution of India is available only to the citizens of India ?
- ☒ (a) Article 19
  - (b) Article 20
  - (c) Article 21
  - (d) Article 22
54. The treaty of Yandabo was signed
- ☒ (a) 1826
  - (b) 1825
  - (c) 1824
  - (d) 1823
55. In the Manusmriti which form marriage results from the "Voluntary union of a maiden and her lover"
- (a) Eighth form
  - ☒ (b) Fifth form
  - (c) Seventh form
  - (d) Sixth form
56. Consider the following description of the Samadhi of a former Prime Minister of India :
- Central Samadhi platform comprising nine square black polished granite solid stone blocks, capped with 'Diya' in the centre. The number nine holds significance and represents the navarasas, navaratras and navagrahas. Then placement of the nine-square Samadhi is in a circular lotus shape pattern. The nine-square platform is accessed in four cardinal directions by pathways made in white composite tile so that the floor does not get heated.*
- Identify the Samadhi :
- (a) Shakti Sthal
  - (b) Shantivan
  - ☒ (c) Sadaiv Atal
  - (d) Veer Bhumi



46. According to the author, India

(a) has never been one nation

(b) has been an aggregate of several nations

~~(c) has always been one nation along with differences~~

(d) became a nation after the British came

47. Why did the great sages of India establish pilgrimages in the different corners of the country ?

(a) Because they wanted to push people to travel to different places

~~(b) Because they could observe the underlying unity of the country as made by nature~~

(c) Because they themselves had travelled to these places

(d) Because they wanted people to be religious everywhere

48. In the passage, the author's attitude towards the railways is

~~(a) critical~~

(b) sympathetic

(c) indifferent

(d) apathetic

49. What does the author mean when he says that "whose hearts were aglow with righteousness had the Ganges as their own homes" ?

(a) One need not visit the Ganges to take holy bath

(b) The Ganges has been polluted, so one should bath at home

(c) One should take a holy dip in the Ganges to purify one's heart

~~(d) The purity of heart is superior to observance of any ritual~~

50. The paragraph is written in a

(a) dialogic style

(b) prescriptive style

(c) descriptive style

~~(d) analytical style~~



- (d) P Q R S



- (d) S R P Q



## PART – A

### SYNONYMS

**Directions :** Each item in this section consists of a sentence with an underlined word followed by four words or group of words. Select the option that is **nearest in meaning** to the underlined word/words and mark your response in your Answer Sheet accordingly.

1. Some people complain when they encounter a small misfortune in the course of their thoroughly happy life.  
(a) run into  
(b) run away  
(c) run down  
(d) run with
2. This world is full of miseries.  
(a) indifferent love  
(b) perfect happiness  
(c) great suffering  
(d) moderate sympathies
3. A glance at a beautiful object gives us delight.  
(a) wisdom  
(b) happiness  
(c) purity  
(d) peace
4. It is terrible for people to die of starvation.  
(a) starch  
(b) staple  
(c) plenty  
(d) hunger
5. The university has constituted a grievance redressal committee to look into the matter.  
(a) depression  
(b) complaint  
(c) abrasion  
(d) gratefulness
6. Rakesh delivered a slanderous speech.  
(a) abusive  
(b) praiseworthy  
(c) moderate  
(d) inspiring
7. Suddenly, the sky was darkened by a gigantic bird.  
(a) winged  
(b) small  
(c) tiny  
(d) enormous
8. To abolish poverty would be to destroy the soil upon which mankind produces the virtues conducive to higher civilization.  
(a) detest  
(b) eradicate  
(c) nurture  
(d) assimilate
9. The Arabs who are not in the cities live in the desert throughout the year, shifting from one oasis to another.  
(a) sandbank  
(b) mound  
(c) dune  
(d) spring
10. The various facets of life can be found reflected in a large city.  
(a) several  
(b) similar  
(c) valuable  
(d) singular