

84/2015

Maximum : 100 marks

Time : 1 hour and 15 minutes

1. The Sardar Sarovar project is located in  
(A) Gujarat (B) Uttar Pradesh  
(C) Orissa (D) Madhya Pradesh
2. Which ministry conducts the decennial census in India?  
(A) Ministry of Rural Development  
(B) Ministry of Human Resource Development  
(C) Ministry of Home Affairs  
(D) Ministry of External Affairs
3. Who was the President of Indian National Congress when 'Poorna Swaraj' resolution was passed?  
(A) Motilal Nehru (B) Subash Chandra Bose  
(C) Gandhiji (D) Jawaharlal Nehru
4. Kolar mines in Karnataka is famous for :  
(A) Copper (B) Gold  
(C) Mica (D) Cement
5. Name the river that flows through silent valley :  
(A) Pamba (B) Kunthipuzha  
(C) Manjeswaram River (D) Chaliyar
6. Gandhiji broke the salt law on :  
(A) March 6, 1930 (B) March 12, 1930  
(C) April 6, 1930 (D) April 12, 1930
7. Who was the founder of 'Samathwa Samaj'?  
(A) Atmaram Pandurang (B) Keshub Chandra Sen  
(C) Brahmananda Sivayogi (D) Vaikunda Swami

8. Which is the longest river in South India?  
(A) Kaveri (B) Krishna  
(C) Tapti (D) Godavari
9. Telengana State was formed on :  
(A) June 2, 2014 (B) June 30, 2014  
(C) July 22, 2014 (D) August 15, 2014
10. SAARC summit of 2014 was held at :  
(A) Manila (B) Dhaka  
(C) Kathmandu (D) Jakarta
11. Anamudi peak is located in which district of Kerala :  
(A) Pathanamthitta (B) Wayanad  
(C) Kottayam (D) Idukki
12. Bachpan Bachao Andolan was started by :  
(A) Kailash Satyarthi (B) Medha Patkar  
(C) J.L.Kaul (D) Dr.Brahma Dutt
13. "No Caste, No Religion, No God for man" Who said these words?  
(A) Sahodaran Ayyappan (B) Ayyankali  
(C) Sree Narayana Guru (D) Chattambi Swamikal
14. Who among the following was known as 'Shanmughadasan'?  
(A) Brahmananda Sivayogi (B) Vagbhadananda  
(C) Chattambi Swamikal (D) Vaikunta Swamikal
15. 'Operation Lehar' was associated with  
(A) Phailin (B) Katrina  
(C) Nilofer (D) Hud Hud
16. Who wrote the book 'Mokshapradipam'?  
(A) Sree Narayana Guru (B) Brahmananda Sivayogi  
(C) Poykayil Yohannan (D) Chattambi Swamikal

17. What is the position of India in Human Development Index 2014?  
 (A) 135 (B) 140  
 (C) 118 (D) 67
18. Gandhiji met Sree Narayana Guru is :  
 (A) 1920 (B) 1925  
 (C) 1928 (D) 1936
19. Quit India movement was started after the failure of :  
 (A) Simon Commission (B) Hunter Commission  
 (C) Cripps Mission (D) Cabinet Mission
20. What is the motto of National Games?  
 (A) Deeper integration for peace and prosperity  
 (B) Get set play  
 (C) Faster, Higher, Stronger  
 (D) Diversity shines here
21. Specific heat is the amount of heat required to rise the temperature :  
 (A) By unit degree of a substance  
 (B) By unit degree of unit mass of substance  
 (C) Unit mass by 10 degree  
 (D) None of the above
22. Pulverized coal is :  
 (A) Coal free from ash (B) Non smoking coal  
 (C) Coal broken into fine particles (D) Coal which burn for long time
23. The I.P (indicated power) of an engine is always \_\_\_\_\_ the brake power.  
 (A) less than (B) equal to  
 (C) greater than (D) none of the above
24. Volumetric efficiency is the ratio of :  
 (A) Volume of charge admitted at NTP to swept volume  
 (B) Total volume to clearance volume  
 (C) Swept volume to clearance volume  
 (D) None of the above

25. Water hammer is developed in a :
- (A) Turbine (B) Penstock  
(C) Draft tube (D) Surge tank
26. The time for half amount of radio active isotope to decay is known as :
- (A) Half life (B) Radio active decay  
(C) Rate of decay (D) Halving time
27. Acme thread has \_\_\_\_\_ degree angle.
- (A) 45 degree (B) 60 degree  
(C) 29 degree (D) 90 degree
28. As steam expands in turbine :
- (A) its specific volume increases (B) its pressure increases  
(C) its boiling point increases (D) its temperature increases
29.  $pv^n = \text{constant}$ , It is the relation for polytrophic process, if  $n = 0$  then the process become :
- (A) constant volume process (B) throttling process  
(C) constant temperature process (D) constant pressure process
30. Which of the following enters to the super heater of a boiler?
- (A) Hot water (B) Super heated steam  
(C) Wet steam (D) Cold water
31. \_\_\_\_\_ is reduced in turning operation.
- (A) Length (B) Thickness  
(C) Diameter and length (D) Diameter
32. A hydro electric power station is commonly constructed at :
- (A) Grass lands (B) Desert areas  
(C) Swamps (D) Hilly areas
33. Morse test is conducted to find out the indicated power of :
- (A) multi cylinder engines (B) two stroke engines  
(C) marine engines (D) low speed engine
34. "Intensity of pressure at a point in a fluid at rest is same in all directions", this law is :
- (A) Hydrostatic law (B) Pascal's law  
(C) Archimedes law (D) Hagen-Poiseuille law

35. One liter of water occupies a volume of :
- (A)  $100 \text{ cm}^3$  (B)  $100000 \text{ cm}^3$   
 (C)  $1000 \text{ cm}^3$  (D)  $500 \text{ cm}^3$
36. The ratio of strength of solid to hollow shaft, both having outside diameter  $D$  and hollow having inside diameter  $D/2$  in torsion is :
- (A)  $1/2$  (B)  $15/16$   
 (C)  $3/8$  (D)  $1/4$
37. The bending moment is maximum on a section where the shearing force :
- (A) changes sign (B) is maximum  
 (C) is equal (D) is minimum
38. A structure used to dam up a stream or a river, over which the water flows is called :
- (A) dam (B) notch  
 (C) orifice (D) weir
39. The most efficient air standard cycle is :
- (A) Carnot cycle (B) Otto cycle  
 (C) Diesel cycle (D) Joule's cycle
40. The function of an inter cooler in multi stage compressor is:
- (A) to increase the quantity of air delivered  
 (B) to make the compression polytropic  
 (C) to protect compressor components from over heating  
 (D) to cool the air and to minimize the work of compression
41. The brake power of an internal combustion engine can be found out with the help of :
- (A) planimeter (B) brake dynamometer  
 (C) calorimeter (D) none of the above
42. The property of the fluid by which molecules of different kinds of fluids are attracted to each other is called :
- (A) Adhesion (B) Viscosity  
 (C) Cohesion (D) Surface tension

43. In water tube boilers :
- (A) forced circulation take place
  - (B) flame and gas flows through the tube which surrounded by water
  - (C) water passes through the tubes which are surrounded by the flame and gases
  - (D) none of the above
44. The object of producing the draught in boiler :
- (A) to provide the adequate supply of air for the combustion
  - (B) to exhaust the gases of combustion from the combustion chamber
  - (C) to discharge gases of combustion to the atmosphere
  - (D) all of the above
45. The efficiency of a boiler plant \_\_\_\_\_ with mechanical draught :
- (A) increases
  - (B) remains same
  - (C) decreases
  - (D) None of the above
46. Venturimeter is used to :
- (A) pressure difference of liquid flowing between two points in a pipeline
  - (B) measure of the pressure of flowing liquid
  - (C) measure the discharge of liquid flowing in a pipe
  - (D) measure the velocity of the liquid
47. The property of a material which allows it to be drawn into smaller section is called :
- (A) plasticity
  - (B) ductility
  - (C) elasticity
  - (D) durability
48. Kinematic viscosity is the :
- (A) ratio of absolute viscosity to the density of the liquid
  - (B) product of absolute viscosity and mass of liquid
  - (C) ratio of density of the liquid to absolute viscosity
  - (D) product of absolute viscosity and density of the liquid
49. Which thermodynamic law provide the basis of temperature measurement?
- (A) I Law of thermodynamics
  - (B) II law of thermodynamics
  - (C) Law of conservation of energy
  - (D) Zeroth law of thermodynamics