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SSC-JEn - 2017

(Staff Selection Commission - Junior Engineer Examination - 2017)

MECHANICAL ENGINEERING

Memory Based Questions and Answer

22 January 2018 (Morning)

**(Preliminary Examination)
Detailed Solution**

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1. In which place 2028 olympic games will take place

- (a) Oslo (b) South Korea
(c) Los Angeles (d) None

Sol.: (c)

2. Who is the writer of the book "You are unique"

- (a) Khushwant Singh (b) A.P.J. Abdul Kalam
(c) Kiran Bedi (d) None of these

Sol.: (b)

3. Who is founder of Bahmani kingdom

Sol.: The founder of the Bahmani kingdom was Alauddin Bahman Shah also known as Hasan Gangu in 1347.

4. Bhagirathi and Alaknanda river meet at

- (a) Haridwar (b) Patna
(c) Devprayag (d) Rishikesh

Sol.: (c)

5. Block level panchayat samiti has power related to administration or advisory

- (a) An Advisory body (b) An administrative authority
(c) A consultant committee (d) A supervisory authority

Sol.: (b)

6. Chamber in human heart

Sol.: The heart has four chambers: two atria and two ventricles.

7. Frog breathes through

Sol.: While completely submerged all of the frog's respiration takes place through the skin. A frog may also breathe much like a human, by taking air in through their nostrils and down into their lungs.

8. Song Yun visited India during

Sol.: (518-522) AD

9. Main pollutant for greenhouse effect

Sol.: CFCs

10. Governor at the time of Khilafat movement?

Sol.: Lord Chelmsford: Governor General and Viceroy of India (1916-1921). First Published: June 11, 2016 | Last Updated: June 12, 2016 Lord Chelmsford served as Governor General and Viceroy of India from 1916 to 1921. Important events during his tenure included Lucknow Pact (1916), Khilafat Movement.

11. The name of Japni Professor received award from India.

Sol.: President Ram Nath Kovind conferred the award to Professor Hiroshi Marui and congratulated him for his exemplary contribution to Indology.

12. MP salary decided by

Sol.: The issues related to salaries and perks for MPs is decided by a Joint Parliamentary Committee consisting of members of both Houses of Parliament.

13. "Nakul Swasthya Patra" related to

Sol.: Provision of Animal Health cards ('Nakul Swasthya Patra')

14. Which of the following Five Year Plans recognized human development as the core of all developmental efforts?

(a) Ninth Five Year Plan

(b) Eighth Five Year Plan

(c) Fifth Five Year Plan

(d) Third Five Year Plan

Sol.: (b)

15. The ratio of inertia force to gravity force is known as

(a) Reynold number

(b) Froude number

(c) Mach number

(d) Euler number

Sol.: (b)

16. Blue Nile river origin

Sol.: The Blue Nile is a river originating at Lake Tana in Ethiopia. With the White Nile, the river becomes one of the two major tributaries of the Nile.

17. India's top five states / UTs with maximum forest cover as % of their own geographical area are:

(a) Mizoram (88.93%)

(b) Lakshadweep (84.56%)

(c) A&N islands (81.84%)

(d) Nagaland (78.21%)

Sol.: (a)

18. India population by 2011 census % by total world population

Sol.: 17.64%.

19. In which of following size of image is equal to the actual size

Sol.: Plane mirror

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20. Contact ratio is equal to

- (a) $\frac{\text{Length of arc of contact}}{\text{Circular pitch}}$ (b) $\frac{\text{Circular pitch}}{\text{Length of arc of contact}}$
- (c) Length of arc of contact \times circular pitch (d) None of these

Sol.: (a)

21. Coefficient of discharge is given by

- (a) $c_c = c_v \times c_{cd}$ (b) $c_d = c_c \times c_v$
- (c) $c_v = c_d \times c_c$ (d) None of these

Sol.: (b)

22. Coriolis component is given by

Sol.: $2V\omega$

23. Efficiency of diesel cycle

Sol.: Increasing the compression ratio decrease the efficiency of diesel cycle.

24. Chezy formula

Sol.: $V = C\sqrt{mi}$

25. Relation between number of link and number of pair

Sol.: $l = 2p - 4$

26. Velocity diagram in a laminar flow through pipe

Sol.: Parabolic

27. The mixture of CI engine is

Sol.: Hetrogenius

28. For throttling process

Sol.: Enthalpy is constant

29. Efficiency of carnot cycle

Sol.: $1 - \frac{T_L}{T_H}$

30. Density of air is

Sol.: 1.21 kg/m^3

