SSC-JE

Staff Selection Commission

Junior Engineer

General Intelligence, Reasoning and General Awareness

Civil, Mechanical and Electrical Engineering

Previous Years Solved Papers : 2007-2023

Also useful for various public sector examinations and other competitive examinations

MADE EASY
PUBLICATIONS

SSC-Junior Engineer : General Intelligence, Reasoning and General Awareness

Preface

Staff Selection Commission-Junior Engineer has always been preferred by Engineers due to job stability. SSC-Junior Engineer examination is conducted every year. MADE EASY team has deeply analyzed the previous exam papers and observed that a good percentage of questions are repetitive in nature, therefore it is advisable to solve previous years papers before a candidate takes the exam.

B. Singh (Ex. IES)

The SSC JE texam is conducted in two stages as shown in table given below.

Papers	Subject	Maximum Marks	Duration
Stage 1: Paper-I : Objective Type	(i) General Intelligence & Reasoning	50 Marks	2 hours
	(ii) General Awareness	50 Marks	
	(iii) General Engineering : Electrical/Mechanical/Civil	100 Marks	
Stage 2: Paper-II : Objective Type	General Engineering : Electrical/Mechanical/Civil	300 Marks	2 hours

Syllabus Paper-I

(i) General Intelligence & Reasoning: The Syllabus for General Intelligence would include questions of both verbal and non-verbal type. The test may include questions on analogies, similarities, differences, space visualization, problem solving, analysis, judgement, decision making, visual memory, discrimination, observation, relationship concepts, arithmetical reasoning, verbal and figure classification, arithmetical number series etc. The test will also include questions designed to test the candidate's abilities to deal with abstract ideas and symbols and their relationships, arithmetical computations and other analytical functions.

(ii) General Awareness: Questions will be aimed at testing the candidate's general awareness of the environment around him/her and its application to society. Questions will also be designed to test knowledge of current events and of such matters of everyday observations and experience in their scientific aspect as may be expected of any educated person. The test will also include questions relating to India and its neighbouring countries especially pertaining to History, Culture, Geography, Economic Scene, General Polity and Scientific Research, etc. These questions will be such that they do not require a special study of any discipline.

Note: In Paper-I, every question carry one mark and there is negative marking of ¼ marks for every wrong answer. Candidates shortlisted in Stage 1 are called for Stage 2. On the basis of combined score in Stage 1 and Stage 2, final merit list gets prepared.

MADE EASY has taken due care to provide complete solution with accuracy. Apart from Staff Selection Commission-Junior Engineer, this book is also useful for Public Sector Examinations and other competitive examinations for engineering graduates.

I have true desire to serve student community by providing good source of study and quality guidance. Any suggestion from the readers for improvement of this book is most welcome.

B. Singh (Ex. IES)
Chairman and Managing Director
MADE EASY Group

SSC-JE Contents

General Intelligence, Reasoning and General Awareness
Objective Solved Papers (Paper-I)

■■■■

1. The best conductor of heat among liquids is
   (a) water   (b) mercury
   (c) ether   (d) alcohol

2. The layer of the atmosphere which reflects radio waves back to the earth is called
   (a) Stratosphere   (b) Tropopause
   (c) Ionosphere   (d) Troposphere

3. An object weight maximum in
   (a) air   (b) water
   (c) hydrogen   (d) vacuum

4. The gravitational force with which the sun attracts the earth
   (a) is less than the force with which the earth attracts the sun.
   (b) is the same as the force with which earth attracts the sun.
   (c) is more than the force with which the earth attracts the sun.
   (d) varies throughout the year.

5. The work done in holding a weight of 25 kg at a height of 1 m above the ground is
   (a) Zero   (b) 25 J
   (c) 2500 J   (d) None of the above

6. If there were no atmosphere the length of the day would
   (a) Decrease   (b) Remain unaffected
   (c) Increase   (d) Be almost half

7. Children specially in western country. Who receive very little sunshine suffer from
   (a) Rickets   (b) Dermatitis
   (c) Scurvy   (d) Sterility

8. The substance that is added to make natural rubber strong and more bouncy is
   (a) Polythene   (b) Sponge
   (c) Sulphur   (d) Chlorine

9. The human body contains the maximum amount of
   (a) proteins   (b) water
   (c) fats   (d) plasma

10. Endoscopy, a technique used to explore the stomach or other inner parts of the body, is based on the phenomenon of
    (a) total internal reflection
    (b) interference
    (c) diffraction
    (d) polarisation

11. Registers are high-speed memory elements, situated in the
    (a) Memory   (b) CPU
    (c) I/O-unit   (d) ROM or EPROM

12. The adult human skeleton consists of
    (a) 204 bones   (b) 206 bones
    (c) 208 bones   (d) 214 bones

13. India 2020 : A vision for the New Millennium has been written by
    (a) Dr. A.P.J. Abdul Kalam
    (b) Michael Spence
    (c) Vikram Seth
    (d) V.S.Naipaul

14. The partition of Bengal in 1905 was responsible for the growth of a movement known as
    (a) Vande mataram   (b) Swadeshi
    (c) Poorna Swaraj   (d) Quite India

15. The establishment of the Mughal administration on the ideas and principles different from Sultans of Delhi, was mainly the work of
    (a) Akbar   (b) Babar
    (c) Jahangir   (d) Shah Jahan

16. Which of the following posts is not mentioned in the Constitution of India?
    (a) The Deputy Speaker of the Lok Sabha
    (b) The Deputy Chairman of the Rajya Sabha
    (c) The Deputy Speaker of the State Assemblies
    (d) The Deputy Prime Minister

17. Who presides over the Joint Sittings of the Lok Sabha and Rajya Sabha?
    (a) The Speaker of the Lok Sabha
    (b) The Vice President as Chairman of the Rajya Sabha
    (c) The President
    (d) A senior MP nominated by the President

18. The centre of an anticyclone is characterised by
    (a) low pressure   (b) calm area
    (c) high pressure   (d) very low pressure

19. National Institute of Oceanography is located at
    (a) Chennai   (b) Manglore
    (c) Panaji   (d) Pune

20. The fishing port of Tuticorin is located on
    (a) Konkan coast
    (b) Malabar coast
    (c) North circars coast
    (d) Coromandel coast

21. Which of the following countries is the highest coconut producer in the world?
    (a) India   (b) Tanzania
    (c) Indonesia   (d) Philippines

22. The 44570 tonne aircraft-carriage admiral garshkav being retrofitted severed Visnok for India under the Rs. 6,900 crore package deal signed between India and Russia stand rechristened as
    (a) INS Ashoka
    (b) INS Akbar
    (c) INS Vikramaditya
    (d) INS Samudra Gupta

23. What annual GDP growth rate is aimed at in the Tenth five year plan?
    (a) 7.5 Percent   (b) 8 Percent
    (c) 8.5 Percent   (d) 9 Percent

24. Which programme was started by US to contain terrorism after attack on world trade centre?
    (a) Operation Deliverance
    (b) Operation infinite Justice
    (c) Operation Enduring freedom
    (d) Operation Cobra

25. Which of the following countries won the final of the 2006 FIFA(Federation International de football Association) world cup held in Berlin (Germany) July, 2006?
    (a) France   (b) Brazil
    (c) Italy   (d) Germany

■■■■

Answer Key	**SSC-JE Solved Paper-2007**

1. (b)	**2.** (c)	**3.** (d)	**4.** (b)	**5.** (a)	**6.** (b)	**7.** (a)	**8.** (c)	**9.** (b)	**10.** (a)
11. (b)	**12.** (b)	**13.** (a)	**14.** (b)	**15.** (a)	**16.** (d)	**17.** (a)	**18.** (c)	**19.** (c)	**20.** (d)
21. (c)	**22.** (c)	**23.** (b)	**24.** (c)	**25.** (c)					

Explanations

1. **(b)**

The following are the thermal conductivity of the given options in W/mK (Watts per metre Kelvin):
Water (at 20°C) – 0.6
Mercury – 8.4
Alcohol (highest among methyl, ethyl and propyl) – 0.2
Ether – 0.13

2. **(c)**

The ionosphere is ionized by solar radiation. The ionization of gas particles in the ionosphere aids in the transmission of radio waves by reflecting waves back to Earth, rather than allowing them to escape the atmosphere.

3. **(d)**

The net weight of the body in a fluid can be given as the actual weight of the body (unit weight of the material × volume of the body) subtracted by the buoyancy (unit weight of the fluid × volume of the body into the fluid).

4. **(b)**

Newton's law of universal gravitation states that a particle attracts every other particle in the universe using a force that is directly proportional to the product of their masses and inversely proportional to the square of the distance between their centres.

$$F_1 = F_2 = G \frac{m_1 \times m_2}{r^2}$$
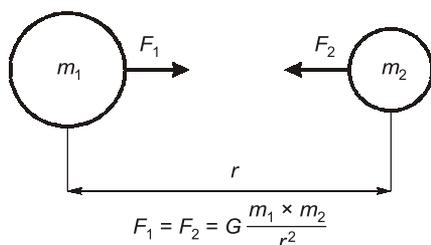
5. **(a)**

Work done = Force × Distance moved in the direction of force.
Since in this case the body is just been hold (neither lifted nor dropped), hence the distance moved is zero. Therefore, the work done is zero.

6. **(b)**

The length of the day is dependent on the rotation of the earth and not on the atmosphere.

7. **(a)**

Known as the sunshine vitamin, vitamin D is produced by the body in response to skin being exposed to sunlight. Vitamin D is essential for strong bones, because it helps the body use calcium from the diet. Traditionally, vitamin D deficiency has been associated with rickets in children, a disease in which the bone tissue doesn't properly mineralize, leading to soft bones and skeletal deformities.
Deficiency of Vitamin D leads to osteomalacia in adults.

8. **(c)**

The chemical process for converting natural rubber into more durable materials by the addition of sulphur is known as vulcanization of rubber.
Advantages of Vulcanized rubber:
• It has good tensile strength and extensibility.
• Excellent resilience i.e.it returns to the original shape, when the deforming load is removed.

• Low water absorption tendency.
• Higher resistance to oxidation, wear and tear abrasion.
• Better electrical insulator.
• It is resistant to organic solvents (petro, benzene), fats and oils.
• It has higher useful temperature range unlike uncured rubber which becomes soft at high temperature (>335K) and brittle at low temperatures (<283K)

9. **(b)**

Plasma, which is 92 percent water, constitutes 55 percent of blood volume. Plasma contains albumin (the chief protein constituent), fibrinogen (responsible, in part, for the clotting of blood), and globulins (including antibodies).
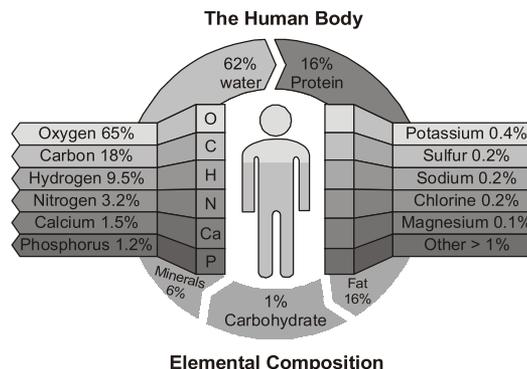
11. **(b)**

In computer architecture, a register is a quickly accessible location available to a computer's central processing unit (CPU). Registers usually consist of a small amount of fast storage.

14. **(b)**

The second Swadeshi movement started with the partition of Bengal by the Viceroy of India, Lord Curzon in 1905 and continued up to 1911. It was the most successful of the pre-Gandhian movement. Its chief architects were Aurobindo Ghosh, Lokmanya Bal Gangadhar Tilak, Bipin Chandra Pal and Lala Lajpat Rai, V.O. Chidambaram Pillai, Babu Genu.
From 1850 to 1904: developed by leaders like Dadabhai Naoroji, Gokhale, Ranade, Tilak, G.V. Joshi and Bhaswat.K.Nigoni. This was also known as First Swadeshi Movement.

1. The Fourth Military World Games were held in October, 2007 in India at
   (a) Hyderabad   (b) Chennai
   (c) Ahmedabad   (d) Lucknow

2. Who of the following received the Sanskriti Award for 2007 in the field of literature?
   (a) Jyotshna Kalita   (b) K.A. Shaji
   (c) K.P. Reji   (d) Bijayini Satpathy

3. The legislative Council in a state can be abolished by the Parliament on the recommendation of
   (a) The President
   (b) The Governor
   (c) The State Legislative Assembly
   (d) None of the above

4. Which of the following atmospheric layers lies closest to the Earth?
   (a) Mesosphere   (b) Exosphere
   (c) Stratosphere   (d) Troposphere

5. Who of the following won the World Chess Championship, the final round for which was held in Mexico City on September 29, 2007?
   (a) Peter Leko
   (b) Viswanathan Anand
   (c) Vladimir Kramnik
   (d) None of the above

6. Match the **List-I (Vitamins)** with **List-II (Deficiency diseases)** and select the correct answer using codes given below the lists:

List I	List II
A. Vitamin A	1. Pernicious anaemia
B. Vitamin D	2. Haemophilia
C. Vitamin B_{12}	3. Xerophthalmia
D. Vitamin K	4. Rickets

   Codes

	A	B	C	D
(a)	2	3	1	4
(b)	3	4	1	2
(c)	4	2	1	3
(d)	1	2	4	3

7. The variety of steel which is resistant to acids is
   (a) carbon steel   (b) molybdenum steel
   (c) nickel steel   (d) stainless steel

8. Metals are good conductors of heat and electricity except
   (a) aluminium   (b) iron
   (c) bismuth   (d) silver

9. Which of the following is India's largest district?
   (a) Leh   (b) Barmer
   (c) Kutch   (d) Bastar

10. The name of the first missile boat built in India is
    (a) Vibhuti   (b) Jal-mudra
    (c) Bhujanga   (d) Matasya

11. Who has been appointed as the Chairman of the 13th Finance Commission ?
    (a) Vijaya L. Kelkar   (b) Bimal Jalan
    (c) B.K. Chaturvedi   (d) Rakesh Mohan

12. How many major and minor ports does India have?
    (a) 12 major and 184 minor
    (b) 16 major and 180 minor
    (c) 20 major and 175 minor
    (d) 27 major and 190 minor

13. Which of the following is not an agency of the U.N.?
    (a) Food and Agricultural Organisation
    (b) International Committee of the Red Cross
    (c) International Monetary Fund
    (d) International Labour Organisation

14. The maximum share of the Gross Domestic Product now comes from
    (a) Manufacturing   (b) Agriculture
    (c) Services   (d) Livestock

15. Nine Degree Channel separates
    (a) England and France
    (b) India and Sri Lanka
    (c) Lakshadweep and Minicoy
    (d) North Andaman and South Andaman

16. Grand Slam in Tennis means a player has to win
    (a) Australian Open, French Open and U.S. Open
    (b) Australian Open, French Open and Wimbledon
    (c) Australian Open, U.S. Open and Wimbledon
    (d) Australian Open, French Open, U.S. Open and Wimbledon

17. The cruise missile named as 'Brave Wind' has been developed by which of the following countries?
    (a) Israel   (b) Russia
    (c) China   (d) Taiwan

18. Who of the following was awarded to Nobel Prize for Literature for the year 2007 ?
    (a) Doris Lessing
    (b) Gerhard Ertl
    (c) Leaonard Hurwicz
    (d) Oliver Smithies

19. The 'Federation of Indian Chambers of Commerce and Industry' (FICCI) was founded in the year
    (a) 1911   (b) 1927
    (c) 1947   (d) 1950

20. Which newspaper has the motto Journalism of Courage ?
    (a) The Times of India
    (b) The Hindu
    (c) The Hindustan Times
    (d) The Indian Express

21. The book. "Ageless Body, Timeless Mind" has been written by
    (a) Deepak Chopra   (b) Kazi Nazrul Islam
    (c) Gita Mehta   (d) Vikram Seth

22. The Sethusamundram Shipping Canal Project proposing to link the Palk Bay with the Gulf of Mannar between India and Sri Lanka, on completion, would result in the saving of sailing time for the ships to the extent of
    (a) 100 to 154 Nautical Miles
    (b) 170 to 227 Nautical Miles
    (c) 254 to 424 Nautical Miles
    (d) 450 to 514 Nautical Miles

23. MVS-1000 is the name given to a newly developed supercomputer by
    (a) Russia   (b) U.S.A.
    (c) Japan   (d) India

24. Which country is geographically in North America but politically a part of Europe?
    (a) Canary Islands   (b) Iceland
    (c) Greenland   (d) Cuba

25. How many cities are proposed to be covered under the Jawaharlal Nehru Urban Renewal Mission (JLNURM)?
    (a) 30   (b) 52
    (c) 63   (d) 98

■■■■

Answer Key   SSC-JE Solved Paper-2008

1. (a)	2. (a)	3. (c)	4. (d)	5. (b)	6. (b)	7. (d)	8. (c)	9. (c)	10. (a)
11. (a)	12. (∗)	13. (b)	14. (c)	15. (c)	16. (d)	17. (d)	18. (a)	19. (b)	20. (d)
21. (a)	22. (c)	23. (a)	24. (c)	25. (c)					

Explanations

1. (a)

The 2007 Military World Games were held at the twin-cities Hyderabad - Secunderabad, Andhra Pradesh, India from October 14-21, 2007. Some parts of games were also held in Mumbai.

2. (a)

The 2007 Sanskriti Award winners are:
Jyotshna Kalita for literature
K. A. Shaji for journalism
K. P. Reji for art
Bijayini Satpathy for dance
Vipin Vijay for cultural achievement

3. (c)

Notwithstanding anything in article 168, Parliament may by law provide for the abolition of the Legislative Council of a State having such a Council or for the creation of such a Council in a State having no such Council, if the Legislative Assembly of the State passes a resolution to that effect by a majority of the total membership of the Assembly and by a majority of not less than two-thirds of the members of the Assembly present and voting.

4. **(d)**

The Layers of the Atmosphere

To Outer Space — Exosphere

Thermopause
Thermosphere
Mesopause
Mesosphere
Stratopause
Stratosphere
Tropopause
Troposphere

Ionosphere
Ozone

500 km, 80 km, 50 km, 7-16 km
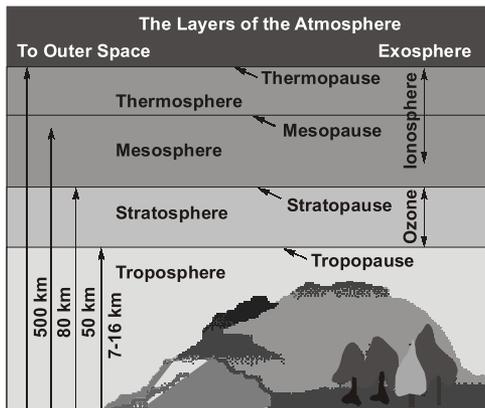
5. **(b)**

The World Chess Championship 2007 was held in Mexico City, from 12 September 2007 to 30 September 2007. Viswanathan Anand of India won the tournament and the title of World Chess Champion. Anand was the only undefeated player in the tournament.

6. **(b)**

Pernicious Anemia. Anemia is a medical condition in which the blood is low in normal red blood cells. Pernicious anaemia is one of the vitamin B-12 deficiency Anemia.

Vitamin K deficiency bleeding (VKDB) is a bleeding problem that occurs in some new-borns during the first few days of life. Haemophilia is a disorder that impairs the body's ability to make blood clots, a process needed to stop bleeding.

Xerophthalmia caused by a severe vitamin A deficiency is described by pathologic dryness of the conjunctiva and cornea.

Rickets is the softening and weakening of bones in children, usually because of an extreme and prolonged vitamin D deficiency.

7. **(d)**

Stainless steel is generally highly resistant to attack from acids, but this quality depends on the kind and concentration of the acid, the surrounding temperature, and the type of steel.

8. **(c)**

No other metal is verified to be more naturally diamagnetic than bismuth. Of any metal, it has one of the lowest values of thermal conductivity (after manganese, and maybe neptunium and plutonium) and the highest Hall coefficient. It has a high electrical resistivity.

9. **(c)**

Kutch of Gujarat is the largest ($45,652$ km^2) district of India by area while Mahe of Puducherry is the smallest (9 km^2) district of India by area.

10. **(a)**

INS Vibhuti was India's first indigenously built missile boat launched at Mazgaon docks in Mumbai.

11. **(a)**

The Thirteenth Finance Commission of India. The Thirteenth Finance Commission of India was constituted by the President of India under the chairmanship of Vijay L. Kelkar on 13 November 2007.

12. **(∗)**

Currently India has 13 major ports and 200 minor ports.

13. **(b)**

At present the UN has in total 15 specialized agencies that carry out various functions on behalf of the UN. The specialized agencies are listed below:

- Food and Agriculture Organization (FAO)
- International Civil Aviation Organization (ICAO)
- International Fund for Agricultural Development (IFAD)
- International Labour Organization (ILO)
- International Maritime Organization (IMO)
- International Monetary Fund (IMF)
- International Telecommunication Union (ITU)
- United Nations Educational, Scientific and Cultural Organization (UNESCO)
- United Nations Industrial Development Organization (UNIDO)
- Universal Postal Union (UPU)
- World Bank Group (WBG)
  - International Bank for Reconstruction and Development (IBRD)
  - International Finance Corporation (IFC)
  - International Development Association (IDA)
- World Health Organization (WHO)

- World Intellectual Property Organization (WIPO)
- World Meteorological Organization (WMO)
- World Tourism Organization (UNWTO)

14. (c)

Indian economy is classified in three sectors - Agriculture and allied, Industry and Services.

Agriculture sector includes Agriculture (Agriculture proper & Livestock), Forestry & Logging, Fishing and related activities. Industry includes 'Mining & quarrying', Manufacturing (Registered & Unregistered), Electricity, Gas, Water supply, and Construction.

Services sector includes 'Trade, hotels, transport, communication and services related to broadcasting', 'Financial, real estate', 'Public Administration, defence and other services'.

Post 1975 (approximately), Service sector contributes maximum to the GDP.

Sectorwise contribution of GDP of India (1950-2014)

Agriculture   Industry   Services
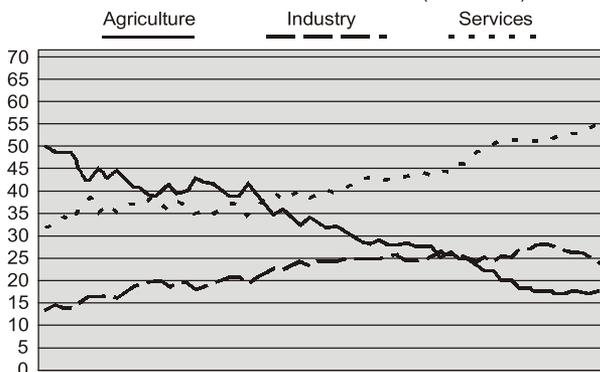
15. (c)

The Nine Degree Channels separates Kavaratti (Lakshadweep) from the Minicoy Islands. The channel is so named as it lies on the 9-degree line of Latitude, north of the equator.

16. (d)

The Grand Slam tournaments, also called majors, are the four most important annual tennis events. The Grand Slam itinerary consists of the Australian Open in mid-January, the French Open in May and June, Wimbledon in July, and the US Open in August and September.

17. (d)

Brave Wind is a surface-to-surface cruise missile system developed by the National Chung-Shan Institute of Science and Technology(NCSIST) in Taiwan.

18. (a)

The Nobel Prize in Literature for 2007 is awarded to the English writer Doris Lessing.

19. (b)

The Federation of Indian Chambers of Commerce and Industry (FICCI) is an association of business organisations in India was established in 1927, on the advice of Mahatma Gandhi by G.D Birla and Purushottam Das Thakurdas.

22. (c)

The project is expected to enable ships sailing between the east and west coasts to have a straight passage in Indian waters without circumventing Sri Lanka and save travel time by 30 hours and around 424 nautical miles (780 km).

One of the advantages of the canal was that the distance between Cape Comorin and Chennai would be reduced to 402 nautical miles from the prevailing 755 miles.

24. (c)

Since Greenland lies on the North American tectonic plate, it is considered to geographically belong to North America.

Greenland is an autonomous region within the Kingdom of Denmark (Europe) and the Queen of Denmark, Queen Margrethe II is recognized as the head of state of Greenland, a position she has held since 1972.

25. (c)

As per the JLNURM guidelines, only select cities/ Urban Agglomerations (UAs) as per 2001 Census have been chosen for the implementation of the programme as per norms/ criteria mentioned below:

A	Cities/UAs with 4 million plus population as per 2001 census	07
B	Cities/UAs with 1 million plus but less than 4 million population as per 2001 census	28
C	Selected cities/UAs (state capitals and other cities/UAs of religious/historic and touristic importance)	28

1. The shifting cultivation in Assam is referred to as
   (a) Valra
   (b) Podu
   (c) Bewar
   (d) Jhum

2. Large destructive sea waves resulting from an earthquake are called
   (a) Tidal waves
   (b) Subduction
   (c) Currents
   (d) Tsunami

3. Transpiration would be minimum when there is
   (a) bright sunlight
   (b) high humidity
   (c) wind blowing
   (d) high temperature

4. Without using soil, plants can also be grown in
   (a) distilled water
   (b) salt solution
   (c) sugar solution
   (d) nutrient solution

5. Tamil Nadu remains dry during the South-West monsoon period because
   (a) it lies in the rain shadow region
   (b) of the presence of Eastern Ghats
   (c) of Palghat and Thalghat passes
   (d) of wider coastal plains

6. The main reason for the execution of Guru Arjun Singh was that
   (a) he was conspiring against Mughals
   (b) he refused to embrace Islam
   (c) he had blessed Prince Khusro who had revolted against Jahangir
   (d) Jahangir did not like him

7. The famous Kohinoor diamond was presented to Humayun by the king of
   (a) Persia
   (b) Gwalior
   (c) Kandahar
   (d) Marwar

8. The first Muslim female ruler of Delhi was
   (a) Chand-Bibi
   (b) Nur Jehan
   (c) Razia Sultana
   (d) Jehan Ara

9. The Golden Quadrilateral Project is related to
   (a) Water ways
   (b) Air ways
   (c) Road ways
   (d) Rail ways

10. Chandragupta II got the title of 'Vikramaditya' meaning equal to
    (a) Sun God
    (b) Agni
    (c) Vayu
    (d) Indra

11. The Speaker of the Lok Sabha holds office till the
    (a) Lok-Sabha is dissolved
    (b) term of the Lok Sabha expires
    (c) next Council of Ministers is constituted
    (d) next Lok Sabha is constituted.

12. When can President of India be impeached by the Parliament ?
    (a) If he refuses to sign on a bill.
    (b) If he is suffering from illness.
    (c) If he is charged with the violation of the constitution.
    (d) If he is not taking the opinion of the Prime Minister.

13. Which one of the following cannot be dissolved but can be abolished ?
    (a) State Legislative Councils
    (b) State Legislative Assemblies
    (c) Rajya Sabha
    (d) Lok Sabha

14. Article 370 of the Constitution of India deals with
    (a) Emergency powers of the President
    (b) Special provisions for Ministers
    (c) Amendment procedure
    (d) Special status of Jammu & Kashmir

15. Who is the Chairman of the 13th Finance Commission?
    (a) Vijay L. Kelkar
    (b) B.B. Bhattacharya
    (c) Manmohan Singh
    (d) Bimal Jalan

16. Which one of the following is not a correct statement?
    (a) Bad money drives good money out of circulation
    (b) Good money drives bad money out of circulation

(c) Bank rate is a tool of monetary policy

(d) Public debt is a tool of fiscal policy

17. An electorate means
    (a) various methods of election
    (b) representatives elected by the people
    (c) voters who elect their representatives
    (d) areas into which the whole state is divide for purposes of elections

18. The Human Development Index provides a composite measure of three dimensions of human development
    (a) Long healthy life, being educated, decent standard of living
    (b) Life expectancy, education, purchasing power
    (c) Income, poverty, purchasing power
    (d) Poverty, purchasing power, inequality

19. Which one of the following cricketers had been awarded the 'Rajiv Gandhi Khel Ratna Award' (2007) ?
    (a) Sachin Tendulkar (b) M.S. Dhoni
    (c) Saurav Ganguly   (d) Anil Kumble

20. Which one of the following Presidents of India has taken a 30 minute sortie in a Sukhoi fighter plane of the Indian Air Force ?

(a) A.P.J. Abdul Kalam
(b) S. Radhakrishnan
(c) V.V. Giri
(d) R. Venkataraman

21. Who is the author of the book 'Q & A' on which the 'Slumdog Millionaire' is based ?
    (a) Vikas Swamp   (b) Salman Rushdie
    (c) Taslima Nasreen (d) Anita Sood

22. The present Governor of RBI is
    (a) K.C. Reddy   (b) D. Subbarao
    (c) Kiran Karnik   (d) Deepak Parekh

23. Who has been judged as Business person of the year, 2008 by The Times of India Survey?
    (a) Mukesh Ambani   (b) Rahul Bajaj
    (c) Aditya Birla   (d) Ratan Tata

24. What will happen to the temperature of a closed room if the refrigerator inside is switched with its door kept open?
    (a) It will fall   (b) It will rise
    (c) It will be constant (d) It will fluctuate

25. The Sun and the Moon appear elliptical near horizontal due to
    (a) interference   (b) illusion
    (c) diffraction   (d) refraction

■■■■

Answer Key	SSC-JE Solved Paper-2009

1.	(d)	2.	(d)	3.	(b)	4.	(d)	5.	(a)	6.	(c)	7.	(b)	8.	(c)	9.	(c)	10.	(a)
11.	(d)	12.	(c)	13.	(a)	14.	(d)	15.	(a)	16.	(b)	17.	(c)	18.	(a)	19.	(b)	20.	(a)
21.	(a)	22.	(b)	23.	(d)	24.	(b)	25.	(d)										

Explanations

1. **(d)**

Shifting cultivation, also known as Jhum cultivation is a primitive practice of cultivation in States of North Eastern Hill Region of India. In this practice of cultivation forest cover on land or slopes of hills is cleared by drying and burning it before onset of monsoon and cropping on it thereafter. After harvest, this land is left fallow and vegetative regeneration is allowed on it till the plot becomes reusable for same purpose in a cycle.

2. **(d)**

Tsunami is a Japanese word meaning "harbour wave" also called seismic sea wave or tidal wave, catastrophic ocean wave, and is usually caused by a submarine earthquake, by an underwater or coastal landslide, or by the eruption of a volcano.

3. **(b)**

When relative humidity levels are too high, a plant cannot make water evaporate which is a part of the transpiration process or draw nutrients from the soil.

Thus transpiration rate decreases with increase in humidity.

5. **(a)**

As Tamil Nadu lies in the rain deficit region during the south west monsoon hence it remains dry during that season.

8. **(c)**

Razia Sultana was the first Muslim female ruler and Sultan of Delhi in India. Razia Sultana, a brave sultan belonged to slave dynasty and was the first Muslim women to rule India and only women to occupy the throne of Delhi. She succeeded her father Shams-ud-din Iltutmish to the Sultanate of Delhi.

9. **(c)**

Golden Quadrilateral is a network of highways connecting India's four top metropolitan cities, namely Delhi, Mumbai, Chennai and Kolkata, thereby, forming a quadrilateral. The largest highway project in India, the Golden Quadrilateral project was launched in 2001 as part of National Highways Development Project (NHDP). The overall length of the quadrilateral is 5,846km consisting of four / six lane express highways.

14. **(d)**

Article 370 of the Indian constitution is an article that gives autonomous status to the state of Jammu and Kashmir. The article is drafted in Part XXI of the Constitution: Temporary, Transitional and Special Provisions.

15. **(a)**

The 13th Finance Commission of India was constituted by the President of India under the chairmanship of Vijay L. Kelkar on 13 November 2007.

18. **(a)**

The Human Development Index (HDI) is a summary measure of achievements in three key dimensions of human development a long and healthy life, access to knowledge and a decent standard of living. The HDI is the geometric mean of normalized indices for each of the three dimensions.

19. **(b)**

Rajiv Gandhi Award is given for the most spectacular and outstanding performance in the field of sports by a sportsperson in a year. In the discipline of cricket, M.S. Dhoni was awarded this award presented by Her Excellency, the President of India on August 29, 2008 for his outstanding performance in the year 2007.

22. **(b)**

Dr. D. Subbarao took over on September 5, 2008 as the 22nd Governor of the Reserve Bank of India. Dr. Subbarao has been appointed for a three-year term. Prior to this appointment, Dr. Subbarao was the Finance Secretary in the Ministry of Finance, Government of India. **Note:** As of present day (2019), Shaktikanta Das is holding the office as the governor of RBI.

24. **(b)**

If the door of the refrigerator is kept open with its switch on in a closed room, heat is merely recycled from the room into the refrigerator, then back into the room. A net room temperature increase would result from the heat of the motor that would be constantly running to move energy around in a circle.

25. **(d)**

The shape of the sun or moon at rising or at setting(at horizon) is elliptical because of the multiple refraction of light ray passing through the atmosphere. Multiple refraction phenomena occurs because the refractive index of earth's atmosphere varies with altitude.

■■■■

# SSC-JE Solved Paper

Exam held on 2010 : CE/ME/EE

General Intelligence and Reasoning

Directions for Questions (1 to 9): Select the related letters/word/number/figure from the given alternatives.

1. ABC : 149 :: ? : 4916
   (a) BCD   (b) BDC
   (c) CDB   (d) DIB

2. WVRT : MLGJ : : SRNP : ?
   (a) HGCE   (b) IHCF
   (c) JIGE   (d) HGCF

3.
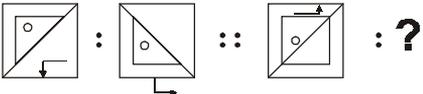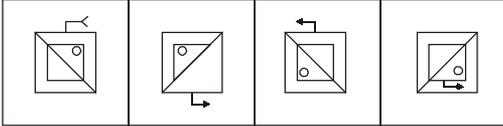
4. 01 : 08 : : ? : 64
   (a) 09   (b) 16
   (c) 25   (d) 36

5. DEFIANT : OBEDIENT : : DEPRAVIT : ?
   (a) GOODNESS   (b) SADNESS
   (c) SERIOUSNESS   (d) OBEDIENT

6. 5 : 23 : : 9 : ?
   (a) 39   (b) 43
   (c) 47   (d) 51

7. MN eg : GE nm : : ? : AL sq
   (a) qsLA   (b) QS la
   (c) QslA   (d) qSLA

8. COW : HERD : : FISH : ?
   (a) GROUP   (b) CROWD
   (c) COLLEGE   (d) SCHOOL

9. $\dfrac{PO}{31} : \dfrac{NM}{27} :: \dfrac{IH}{17} : ?$

   (a) $\dfrac{GT}{14}$ (b) $\dfrac{GF}{13}$

   (c) $\dfrac{GM}{16}$ (d) $\dfrac{GV}{16}$

Directions for Questions (10 to 18): Find the odd number/letters/figure/number pair from the given alternatives.

10. (a) Pancreas   (b) Ductless glands
    (c) Duct glands   (d) Parathyroid

11.
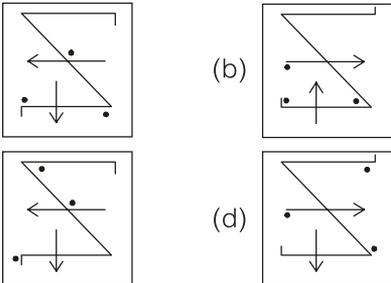
12. (a) 7431   (b) 8354
    (c) 5410   (d) 6421

13. (a) (72, 81)   (b) (48, 56)
    (c) (42, 49)   (d) (36,42)

14. (a) TGRI   (b) WDUF
    (c) NHLI   (d) ZAXC

15. (a) ooo pqT   (b) cccdGH
    (c) iiiJMN   (d) sssTWX

16. (a) Radio   (b) Telephone
    (c) Television   (d) Wireless

17. (a) F   (b) A
    (c) N   (d) X

18. (a) RISK   (b) VIGOUR
    (c) SLUGGISH   (d) ENERGETIC

19. From the alternatives, select the set which is most like the given set.
    Given set: (3, 9, 27):
    (a) (2, 4, 6)   (b) (1, 3, 8)
    (c) (4, 12, 17)   (d) (5, 25, 125)

20. Arrange the following words as per order in the dictionary

(i) REPIECE   (ii) REPEAL
(iii) REPLACE   (iv) REPOINT
(v) REPAIR
(a) (iv) (iii) (i) (ii) (v)   (b) (v) (ii) (i) (iii) (iv)
(c) (v) (ii) (i) (iv) (iii)   (d) (ii) (i) (iii) (iv) (v)

21. A series of figures are given which can be grouped into classes. Select the group into which the figures can be classified from the given responses.
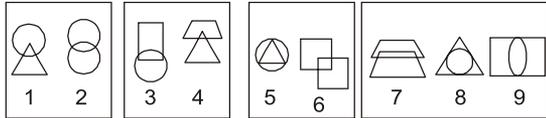
(a) 1, 2, 3
    4, 5, 6
    7, 8, 9

(b) 2, 4, 7
   1, 3, 5
    6, 8, 9

(c) 2, 6, 7
    5, 8, 9
    1, 3, 4

(d) 1, 3, 5
    2, 4, 6
    7, 8, 9

22. Arrange the following in the appropriate sequence
(i) House   (ii) Roofing
(iii) Foundation   (iv) Lintel
(v) Plastering   (vi) Flooring
(a) (iii) (iv) (ii) (v) (vi) (i)
(b) (iii) (iv) (v) (ii) (vi) (i)
(c) (vi) (iii) (ii) (iv) (v) (i)
(d) (i) (iii) (iv) (vi) (v) (ii)

Directions for Questions (23 to 29):
A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.

23.
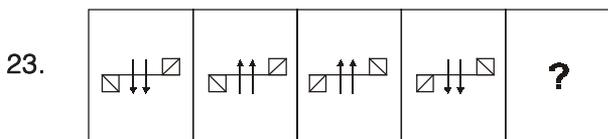
24. 5, 6, 7, 8, 10, 11, 14, ?, 19
(a) 15   (b) 16
(c) 17   (d) 18

25. 7, 14, 42, 168, ...?
(a) 750   (b) 780
(c) 840   (d) 850

26. 857, 969, 745, 1193, ?
(a) 2089   (b) 1084
(c) 207   (d) 297

27. ACZXP, BDYYQ, CEXZR, DFWAS, ?, FHUCU
(a) FGVBT   (b) EGUBT
(c) EGVZT   (d) EGVBT

28. $\dfrac{C}{F}, \dfrac{E}{J}, \dfrac{G}{N}, \dfrac{I}{R}, ?$

(a) $\dfrac{K}{V}$ (b) $\dfrac{L}{V}$

(c) $\dfrac{K}{U}$ (d) $\dfrac{M}{N}$

29. C, I, N, T, ?, E, J
(a) A   (b) X
(c) Y   (d) Z

30. Santosh is 5 years older than his wife Pooja and Pooja's age now is thrice the age of their daughter Sangeetha. Sangeetha is now 10 years old. What was the age of Santosh when Sangeetha was born?
(a) 20   (b) 25
(c) 30   (d) 28

31. After interchanging – and ×, 5 and 8, which one of the following becomes a correct equation?
(a) 8 – (5 × 3) = 25   (b) (3 × 5) – 8 = 34
(c) (5 – 3) × 8 = 26   (d) (5 – 3) × 8 = 12

32. From the given alternatives select the word which cannot be formed using the letters of the given words.
CONGRATULATIONS
(a) GRANT   (b) CAUTION
(c) SCHOOL   (d) TRANSACT

33. If POWER is coded as KLDVI how can FAITH be coded ?
(a) UZRGS   (b) GASGV
(c) HCRIU   (d) JRMPY

94. Which was the first all India Movement launched by Gandhiji?
(a) Civil disobedience movement
(b) Non-co-operation movement
(c) Rowlatt Satyagraha
(d) Bardoli Satyagraha

95. 'Clove' is a :
(a) Piece of stem   (b) Flower bud
(c) Fruit   (d) Anther

96. Jet aircrafts fly through the :
(a) Upper troposphere
(b) Lower stratosphere
(c) Upper stratosphere
(d) Lower mesosphere

97. Which is the only bird that can fly backwards:
(a) Peacock   (b) Humming Bird
(c) Parrot   (d) Pigeon

98. Which of the following State is not having bicameral legislature?
(a) Andhra Pradesh (b) Tamil Nadu
(c) Bihar   (d) Uttar Pradesh

99. 'Dyarchy' was introduced at the centre by the Govt, of India Act of :
(a) 1858   (b) 1935
(c) 1919   (d) 1909

100. The weight of a body at the centre of earth will be:
(a) The same as that on the surface of the earth
(b) More than that on the surface of the earth
(c) About half of that on the surface of the earth
(d) Zero

Answer Key	SSC-JE Solved Paper-2010

1. (a)	2. (b)	3. (c)	4. (a)	5. (a)	6. (a)	7. (b)	8. (a)	9. (b)	10. (a)
11. (b)	12. (a)	13. (c)	14. (c)	15. (a)	16. (d)	17. (b)	18. (c)	19. (d)	20. (b)
21. (c)	22. (a)	23. (d)	24. (a)	25. (c)	26. (d)	27. (d)	28. (a)	29. (c)	30. (b)
31. (a)	32. (c)	33. (a)	34. (a)	35. (a)	36. (a)	37. (a)	38. (d)	39. (c)	40. (c)
41. (b)	42. (c)	43. (b)	44. (d)	45. (d)	46. (c)	47. (d)	48. (b)	49. (b)	50. (a)
51. (b)	52. (d)	53. (a)	54. (a)	55. (b)	56. (a)	57. (a)	58. (a)	59. (d)	60. (b)
61. (b)	62. (b)	63. (b)	64. (b)	65. (a)	66. (d)	67. (d)	68. (d)	69. (b)	70. (a)
71. (a)	72. (c)	73. (b)	74. (a)	75. (c)	76. (c)	77. (c)	78. (a)	79. (b)	80. (d)
81. (d)	82. (d)	83. (d)	84. (d)	85. (d)	86. (c)	87. (a)	88. (d)	89. (d)	90. (c)
91. (d)	92. (d)	93. (b)	94. (c)	95. (b)	96. (b)	97. (b)	98. (b)	99. (c)	100. (d)

Explanations

1. (a)

ABC : 149
$A = 1 = 1^2$
$B = 4 = 2^2$
$C = 9 = 3^2$;
∴ $D = 16 = 4^2$
∴ $4916 = BCD$

2. (b)
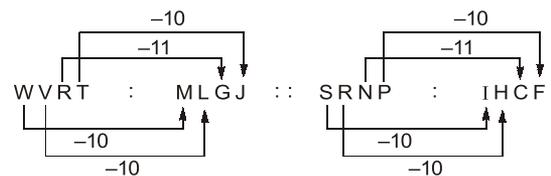
4. **(a)**

$$01 : 08 : : \ 09 : 64$$
$$1^2 \ 2^3 \qquad 3^2 \ 4^3$$

5. **(a)**

DEFIANT : OBEDIENT
DEPRAVIT : GOODNESS

6. **(a)**

$$5 : 5 \times 4 + 3 : : \ 9 : 9 \times 4 + 3$$
$$5 : 23 : : \ 9 : 39$$

7. **(b)**
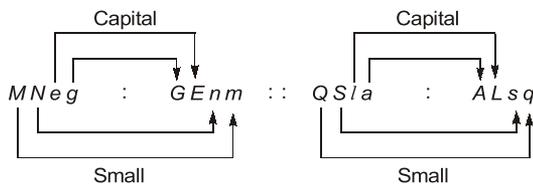
8. **(a)**

Many cows together is called a herd. Similarly many fish together is called a group.

9. **(b)**

$P + O = 16 + 15 = 31$
$I + H = 9 + 8 = 17$
$N + M = 14 + 13 = 27$
$G + F = 7 + 6 = 13$

where the number represents the respective position of alphabets when arranged in ascending order.

10. **(a)**

Pancreas is a mixed gland (both duct and ductless gland). Whereas parathyroid is a ductless gland.

12. **(a)**

7431 is the only number divisible by 3.

13. **(c)**

$(72, 81) \neq (9 \times 6, 9 \times 7)$
$(48, 56) \rightarrow (8 \times 6, 8 \times 7)$
$(42, 49) \rightarrow (7 \times 6, 7 \times 7)$
$(36, 42) \rightarrow (6 \times 6, 6 \times 7)$

14. **(c)**

$TGRI \Rightarrow Z - 6 = T ; A + 6 = G ; Z - 8 = R ; A + 8 = I$
$WDUF \Rightarrow Z - 4 = W ; A + 4 = D ; Z - 5 = U ; A + 5 = F$
$NHLI \Rightarrow Z - \underbrace{12 = N ; A + 7}_{\text{Not matching}} = H : Z - \underbrace{14 = L ; A + 8}_{\text{Not Matching}} = I$
$ZAXC \Rightarrow Z - 0 = Z ; A + 0 = A ; Z - 2 = X ; A + 2 = C$

15. **(a)**
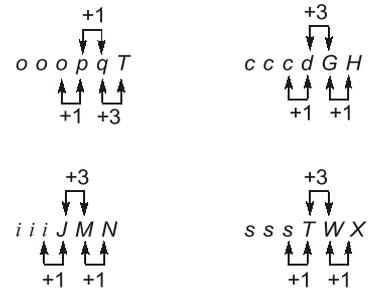
16. **(d)**

Wireless is a technology to provide connectivity to radio, telephone or television.

17. **(b)**

'A' is a vowel. 'F', 'N' and 'X' are consonants.

18. **(c)**

SLUGGISH means slow-moving or inactive which is opposite to the meaning of other three.

19. **(d)**

$(3, 9, 27) \Rightarrow (3, 3^2, 3^3)$
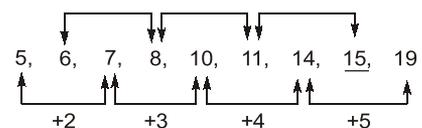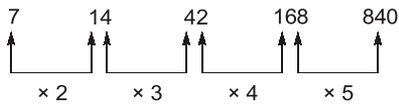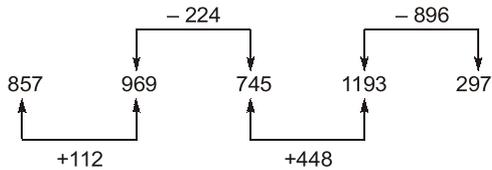$(5, 25, 125) \Rightarrow (5, 5^2, 5^3)$

21. **(c)**

2, 6, 7 → Similar figure with only a part overlapping
5, 8, 9 → different figure with one fully overlapping the other
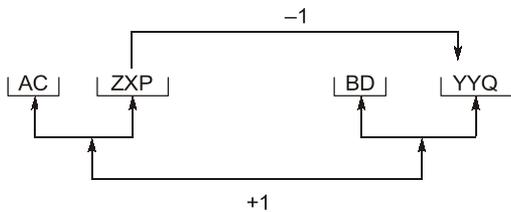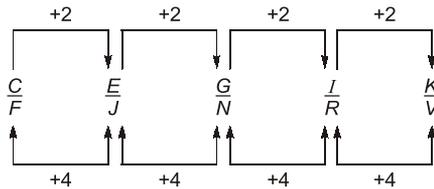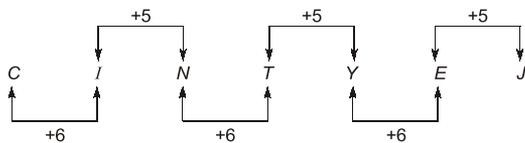1, 3, 4 → different figure with only a part overlapping.

22. **(a)**

24. **(a)**

25. (c)

7   14   42   168   840

× 2   × 3   × 4   × 5

26. (d)

− 224   − 896

857   969   745   1193   297

+112   +448

27. (d)

The sequence is:

−1

| AC | | ZXP | | BD | | YYQ |

+1

28. (a)

+2   +2   +2   +2

$\frac{C}{F}$ $\frac{E}{J}$ $\frac{G}{N}$ $\frac{I}{R}$ $\frac{K}{V}$

+4   +4   +4   +4

29. (c)

+5   +5   +5

C   I   N   T   Y   E   J

+6   +6   +6

30. (b)

Given,

     Sangeetha's age = 10

∴   Pooja's age = 3 × Sangeetha's age

            = 3 × 10 = 30

     Santosh age = Pooja's age + 5

            = 30 + 5 = 35

When, Sangeetha was born (i.e. 10 yrs ago),

     Santosh age = 35 − 10 = 25 years

31. (a)

8 − (5 × 3) = 25   before

5 × (8 − 3) = 25   correct

32. (c)

The letter 'H' from SCHOOL is not present in CONGRATULATIONS.

33. (a)

POWER ⇒ P = Z − 10; 0 = Z − 11; W = Z − 3;
E = A + 4; R = Z − 8
KLDVJ ⇒ K = A + 10; D = A + 3; V = Z − 4;
1 = A + 8
Similarly,
FAITH ⇒ F = A + 5; A = A + 0; J = A + 8;
T = Z − 6; H = A + 7
UZRGS ⇒ U = Z − 5; Z = Z − 0; R = Z − 8;
G = A + 6; S = Z − 7

34. (a)

        Sister   Brother
Mala ← Krishna → Rama

                       Daughter

Uncle   Brother
        Naku → Pallu

35. (a)

           Rita   Tara   Sheetal

1   2   3 10   18   26   50
(Front)   (Behind)
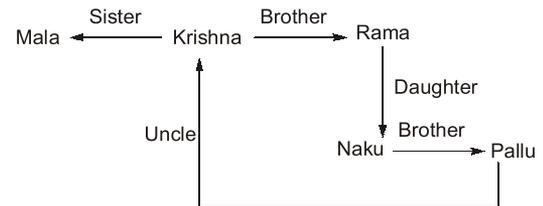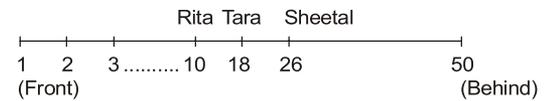
             25th from behind

Note: 25th from behind = 26th from front

∴ Middle position = $\frac{10 + 26}{2}$ = 18 th from front

36. (a)

     5 + 6 ÷ 3 − 12 × 2 = 17, before
     Interchanging ÷ and x,
     5 + 6 × 3 − 12 ÷ 2 = 5 + 18 − 6 = 17, correct

37. (a)

           8514 = BEAD ⇒ B = 8,
              E = 5, A = 1, D = 4
           3165 = LATE ⇒ L = 3, A = 1,
              T = 6, E = 5
∴   TABLE = 61835

38. (d)

The repeated sequence is *b ab d.*

39. (c)

     937(28)216 ⇒ (9 + 3 + 7) + (2 + 5 + 6) = 28

SSC-JE Solved Paper

Exam held on 22-03-2021 (E) : ME

General Intelligence and Reasoning

1. The sequence of folding a piece of paper and the manner in which the folded paper has been cut is shown in the given figure. How would this paper look when unfolded?
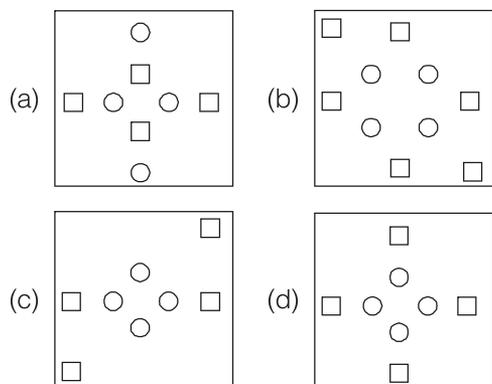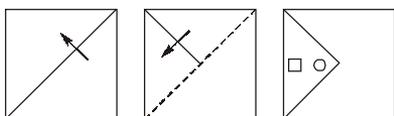
2. Select the correct combination of mathematical signs to sequentially replace the ∗ signs and to balance the given equation.

16 ∗ 4 ∗ 22 ∗ 2 ∗ 5 = 58
   (a) ×, +, ÷, −
   (b) +, −, ÷, ×
   (c) ×, −, ÷, +
   (d) ÷, −, ×, +

3. Select the option in which the given figure is embedded (rotation is NOT allowed).
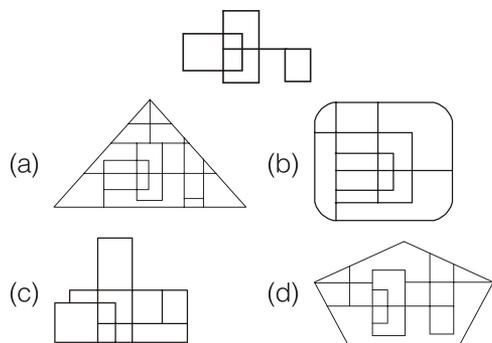
4. A little boy is performing on stage. Pointing to him, his father seated in the audience, told the woman sitting next to her "That boy's maternal grandmother's husband is also your husband's wife's daughter's grandmother's husband. How is the woman sitting in the audience related with the mother-in-law of the man who is the father of the boy performing on stage?
   (a) Daughter
   (b) Daughter-in-law
   (c) Sister-in-law
   (d) Grand-daughter

5. Mangesh bought a bicycle from a shop. He sold it to a Ragini and earned a profit of 12%. Ragini further sold it to Kartik for Rs. 5362.56 and earned a profit of 14%. At what price did Mangesh buy the bicycle from the shop?
   (a) 4200
   (b) 4956
   (c) 4000
   (d) 4800

6. Select the option that is related to the third number in the same way as the second number is related to the first number.
   18 : 306 :: 23 : ?
   (a) 506
   (b) 509
   (c) 508
   (d) 507

7. Choose the pair that best represents a similar relationship to the one expressed in the original pair of words.
   Seismograph : Earthquakes
   (a) Hygrometer : Torque
   (d) Viscometer : Elasticity
   (c) Fathometer : Gravity
   (d) Udometer : Rain

8. Select the option in which the given figure is embedded (rotation is NOT allowed).

Explanations

2. **(c)**

16 * 4 * 22 * 2 * 5 = 58

After applying sign

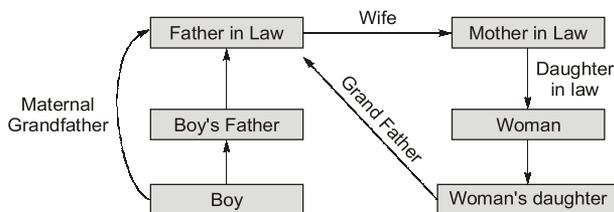$\Rightarrow$ $16 \times 4 - 22 \div 2 + 5$

Apply BODMAS rule

$\Rightarrow$ $16 \times 4 - 11 + 5$

$\Rightarrow$ $64 - 6 = 58$

4. **(b)**

The possible relationship diagram is

From the above diagram it can be concluded that Woman is the Daughter in law of boy's Father's mother in law.

5. **(a)**

Cost price of the bicycle for Ragini

$$= \frac{5362.56}{114} \times 100$$

= Rs. 4704

Cost price of the bicycle for Mangesh

$$= \frac{4704}{112} \times 100$$

= Rs. 4200

6. **(a)**

$18 \times (18 - 1) = 18 \times 17 = 306$

Similarly,

$23 \times (23 - 1) = 23 \times 22 = 506$

7. **(d)**

Seismograph is the instrument used to measure Earthquake, similarly Udometer is to measure rain.

10. **(d)**

30 are common to both circle and square but outside the rectangle and triangle.

13. **(b)**

14. **(c)**

Crocodiles comes under the category of Reptiles. Similarly, Tiger comes under the category of mammals.

15. **(d)**

The logical sequence is :

Notification $\rightarrow$ Registration $\rightarrow$ Attending Webinar $\rightarrow$ Feedback $\rightarrow$ e-Certification

16. **(c)**
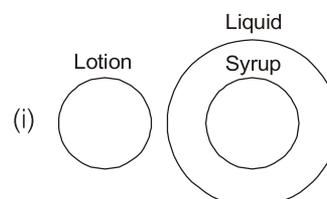
$$138 = 12 \times (12 - 1) + \frac{12}{2}$$

Similarly,

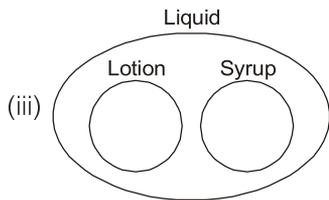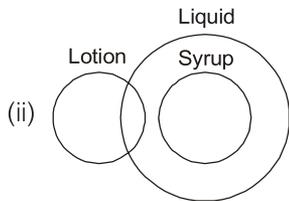$$14 \times (14 - 1) + \frac{14}{2} = 189$$

17. **(d)**

18. **(d)**

The possible cases are :

(i)

(ii)

Liquid

Lotion   Syrup

(iii)

Liquid

Lotion   Syrup

From the above cases we can conclude that it follows only conclusion III.

19. **(d)**

| 16 | 18 | 9 | | 13 | 5 | 18 |
| P | R | I | | M | E | R |

| 9 | 18 | 16 | | 18 | 5 | 13 |
| I | R | P | | R | E | M |

Similarly,

| 3 | 1 | 14 | | 4 | L | 5 |
| C | A | N | | D | 12 | E |

| 14 | 1 | 3 | | 5 | 12 | 4 |
| N | A | C | | E | L | D |
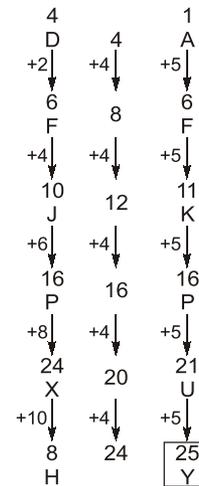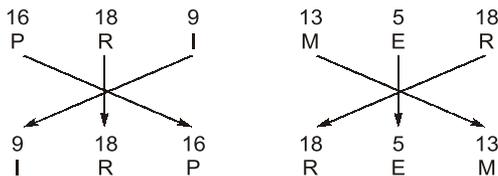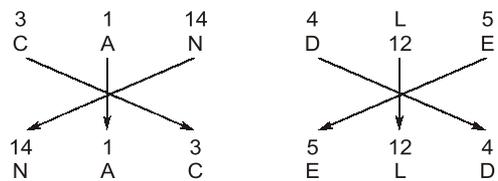
20. **(a)**

Let the current age of Arun is x years and Bidan is y years.

Then, $x + 7 = y - 4$

$y = x + 11$

After 10 years, the ages of Arun, Bidan and Charan are $x + 10$, $x + 21$ and 12 years.

Then, $\dfrac{x + 10 + x + 21 + 12}{3} = 33$
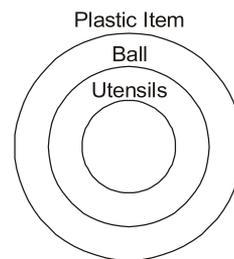
$2x + 43 = 99$

$x = 28$ years

21. **(c)**

It can be observed that first bracketed letter is correct and second is incorrect.

4		1
D	4	A
+2	+4	+5
6	8	6
F		F
+4	+4	+5
10	12	11
J		K
+6	+4	+5
16	16	16
P		P
+8	+4	+5
24	20	21
X		U
+10	+4	+5
8	24	25
H		Y

23. **(d)**

'Osteoporosis' is the disease of bones in which bones becomes weaker. Similarly, Vitiligo is the disease related to skin.

24. **(c)**
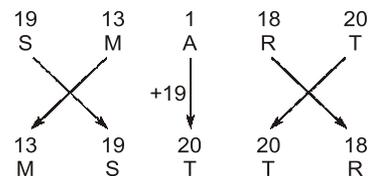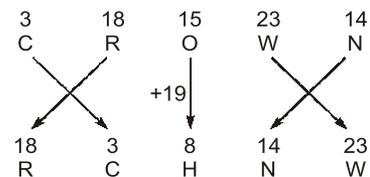
The possible case is :

Plastic Item

Ball

Utensils

From the above diagram we can conclude that it follows only conclusion I.

25. **(b)**

| 19 | 13 | 1 | 18 | 20 |
| S | M | A | R | T |

+19

| 13 | 19 | 20 | 20 | 18 |
| M | S | T | T | R |

Similarly,

| 3 | 18 | 15 | 23 | 14 |
| C | R | O | W | N |

+19

| 18 | 3 | 8 | 14 | 23 |
| R | C | H | N | W |

27. **(d)**

The arrangement according to English dictionary is

Navigation → Neptune → Nervous → Never → Nicotine