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**GS SPECIAL MOCK TEST- 26 (ANSWER KEY)**

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

**Note :** *If your opinion differ regarding any answer, please message the mock test and Question number to 8860330003*

**Note :** *If you face any problem regarding result or marks scored, please contact : 9313111777*

**GS SPECIAL MOCK TEST-26 (SOLUTION)**

1. (A) Two expert Committees were set up in 1990s under the chairmanship of M. Narasimhan Committee (Committee on the Financial System - CFS) was appointed by Manmohan Singh as India's Finance Minister on 14 August 1991, and the second one (Committee on Banking Sector Reforms) was appointed by P. Chidambaram as Finance Minister in December 1997. The 1991 committee submitted its report to the Finance Minister in November 1991 which was placed on the table of Parliament on December 17, 1991. It recommended the introduction of four tier banking system in the country: I tier : 3 or 4 International Banks; II tier: 8 to 10 National Banks; III tier Regional Banks; and IV tier: Rural Banks.
2. (A) Gross value added at factor cost (formerly GDP at factor cost) is derived as the sum of the value added the agriculture, industry and services sectors. If the value added of these sectors is calculated at purchaser values, gross value added at factor cost is derived by subtracting net product taxes from GDP. GDP at factor cost is called Real GDP. This is because it takes into account various other factors which give a clearer picture of the GDP.
3. (B) The Foreign Exchange Regulation Act (FERA) was legislation passed by the Indian Parliament in 1973 with the aim of regulating payments and foreign exchange. FERA was repealed in 1999 by the government of Atal Bihari Vajpayee and replaced by the Foreign Exchange Management Act, which liberalised foreign exchange controls and restrictions on foreign investment. FEMA, which replaced Foreign Exchange Regulation Act (FERA), had become the need of the hour since FERA had become incompatible with the pro-liberalisation policies of the Government of India. FEMA has brought a new management regime of foreign Exchange consistent with the emerging framework of the World Trade Organisation (WTO).
4. (A) The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) is an Indian job guarantee scheme, enacted by legislation on August 25, 2005. The scheme provides a legal guarantee for one hundred days of employment in every financial year to adult members of any rural household willing to do public work-related unskilled manual work at the statutory minimum wage of Rs. 120. This act was introduced with an aim of improving the purchasing power of the rural people, primarily semi or un-skilled people living in rural India, whether or not they are below the poverty line. The law was initially called the National Rural Employment Guarantee Act (NREGA) but was renamed on 2 October 2009 as MGNREGA.
5. (B) India is called a mixed economy because there is both private owned enterprises and public owned enterprises and the government does not intervene on the decisions of enterprise owned by individuals except to govern law and to correct market failures. The product market in this case is determined by the market demand and market supply rather than the decisions of the policy makers.
6. (D) Since 1957, the Reserve Bank of India is required to maintain gold and foreign exchange reserves of ₹ 200 crore, of which at least ₹ 115 crore should be in gold and ₹ 85 crore in the form of Government Securities. The system as it exists today is known as the minimum reserve system.
7. (D) Gross domestic product (GDP) is the market value of all officially recognized final goods and services produced within a country in a given period of time. GDP was first developed by Simon Kuznets for a US Congress report in 1934. After the Bretton Woods conference in 1944, GDP became the main tool for measuring the country's economy.
8. (A) The government recently (in October 2012) approved the 12th five year plan (2012-17) document that seeks to achieve annual average economic growth rate of 8.2 per cent, down from 9 per cent envisaged the National Development Council (NDC) which is the apex body for decision making and deliberations on development matters in India, presided over by the Prime Minister.
9. (B)

10. (C) The Reserve bank of India was set up on the basis of the recommendations of the Hilton Young Commission. The Reserve Bank of India Act, 1934 (II of 1934) provides the statutory basis of the functioning of the Bank, which commenced operations on April 1, 1935. The Reserve Bank of India was the basis of the Reserve Bank of India (Transfer to Public Ownership) Act, 1948. All shares in the capital of the Bank were deemed transferred to the Central Government on payment of suitable compensation.
11. (D)
12. (C) The Insurance Regulatory and Development Authority regulates and develops the insurance industry in India. It was constituted by a Parliament of India act called Insurance Regulatory and Development Authority Act, 1999. The IRDA Act, 1999 was passed as per the major recommendation of Malhotra Committee report (1994) which recommended establishment of an independent regulatory authority for insurance sector in India. Later, it was incorporated as a statutory body in April, 2000.
13. (D) By merging the two erstwhile wage employment programme - National Rural Employment programme (NREP) and Rural Landless Employment Guarantee Programme (RLEGP) the Jawahar Rozgar Yojana (JRY) was started with effect from April, 1, 1989 on 80 : 20 cost sharing basis between the centre and the States. The main objective of the Yojana was additional gainful employment for the unemployed and under-employed persons in rural areas. The other objective was the creation of sustained employment by strengthening rural economic infrastructure and assets in favour of rural poor for their direct and continuing benefits.
14. (B) Household savings contribute 60-80% of India's gross domestic savings, and have been its most stable and highest component for over six decades. A tenth of total assets is in currency; a similar amount goes to the government through small savings schemes. Since there is no social security in India, life insurance and provident funds tend to be allocated significant amounts from total household savings. Finally, capital market instruments-such as shares, debentures mutual funds get less than 5% of total investment.
15. (B) The gems and Jewellery sector is a major foreign exchange earner. At present, gems and jewellery is the second largest foreign exchange earner in the country surpassing even what was earned by the textile and apparel sector. The countries where demand is increasing for Indian jewellery include the UAE, the US, Russia, Singapore, Hong Kong, Latin America and China.
16. (\*)
17. (B) Jawahar Gram Samridhi Yojana (JGSY) is the restructured, streamlined and comprehensive version of the erstwhile Jawahar Rozgar Yojana (JRY). It was launched on 1st April, 1999. It has been designed to improve the quality of life of the rural poor by providing them additional gainful employment.
18. (D) Consumer Sovereignty means that buyers ultimately determine which goods and services remain in production. While businesses can produce and attempt to sell whatever goods they choose, if the goods fail to satisfy the wants and needs, consumers decide not to buy. If the consumers do not buy, the businesses do not sell and the goods are not produced.
19. (C) Free goods are what is needed by the society and is available without limits. The free good is a term used in economics to describe a good that is not scarce. A free good is available in as great a quantity as desired with zero opportunity cost to society.
20. (B) Tea and coffee are substitutes to each other to a great extent. Hence, the rise in price of one causes the increase in demand of the other and vice-versa.
21. (D) The term 'supply of labour' refers to the number of hours of a given type of labour which will be offered for hire at different wage rates. Usually, it is found that higher the wage rates larger is the supply indicating a direct relationship that exists between the wage rate i.e. the price of labour and labour hours supplied. The supply of labour is very much affected by the work leisure ratio which in turn is affected by the changes in wage rates. The supply of labour in an economy depends on various economic and non-economic factors such as: population, sex composition, age composition of the population, willingness to work, wage rates, migration and immigration, working hours, social attitude and standard, legal barriers, education and training employer's attitude, supply and leisure, efficiency of workers, etc. In economics, the marginal product of labor

- (MPL) is the change in output that results from employing an added unit of labor. It has nothing to do with the supply of labour.
22. (D) Capital formation refers to capital accumulation referring to the total "stock of capital" that has been formed, or to the growth of this total capital stock. It also refers to a measure of the net additions to the (physical) capital stock of a country (or an economic sector) in an accounting interval, or, a measure of the amount by which the total physical capital stock increased during an accounting equals net fixed capital investment, plus the increase in the value of inventories held, plus (net) lending to foreign countries, during an accounting period (a year or quarter). Capital is said to be "formed" when savings are utilized for investment purposes, often investment in production.
23. (B) A progressive tax is a tax by which the tax rate increases as the taxable base amount increases. "Progressive" describes a distribution effect on income or expenditure, referring to the way the rate progresses from low to high, where the average tax rate is less than the marginal tax rate. It can be applied to individual taxes or to a tax system as a whole; a year, multi-year, or lifetime. Progressive taxes attempt to reduce the tax incidence of people with a lower ability-to-pay, as they shift the incidence increasingly to those with a higher ability-to-pay.
24. (A) Prime Cost refers to a business's expenses for the materials and labour uses in production. Prime cost is a way of measuring the total cost of the production inputs needed to create a given output. By analysing its prime costs, a company can determine how much it must charge for its finished product in order to make a profit. Variable costs are expenses that change in proportion to the activity of a business. Variable cost is the sum of marginal costs over all units produced. It can also be considered normal costs. Fixed costs and variable costs make up the two components of total cost. Prime Cost = Direct Materials + Direct Labour + Direct expenses. This comes to Variable cost + Administrative cost. Administrative cost is the cost associated with the general management of organization in accounting.
25. (C) The primary market is that part of the capital markets that deals with the issuance of new securities. Companies, governments or public or private sector institutions can obtain funding through the sale of a new stock or bond issue. This is the market for new long term equity capital. The primary market is the market where the securities are sold for the first time. Therefore it is also called the new issue market (NIM).
26. (D) Demand deposits are funds held in an account from which deposited funds can be withdrawn at any time without any advance notice to the depository institution. Demand deposits can be "Demanded" by an account holder at any time. Many checking and saving accounts today are demand deposits and are assessable by the account holder through a variety of banking options, including teller, ATM and online banking. In contrast, a term deposit is a type of account which cannot be accessed for a predetermined period (typically the loan's term)
27. (C) In economics and business decision-making, sunk costs are retrospective (past) costs that have already been incurred and cannot be recovered. Sunk costs, which are future costs that may be incurred or changed if an action is taken. The sunk cost is distinct from economic loss. Sunk costs may cause cost overrun.
28. (C)
29. (B) This is inertia of direction. It is the ability of body to be in a state of direction of motion. For example sun holds planets in a fixed elliptical path this is one of the examples of inertia of direction. Inertia of direction is non-existent however inertia only apply to a body at rest or moving with a constant velocity. It is the property possessed by a body to resist change. In other way we can say that if a body moves in a particular direction under the action of a force and if the force is removed then the will continue to move the same direction unless stopped under the action of another opposing force for a body at rest it under the inertia of rest where as inertia of motion is for bodies in motion.
30. (C) In this case, if we increase the pressure on the ice the ice-water system wants to try to lower it again. It can do that by making itself fit into a smaller volume. But since water fills a smaller volume when it's liquid, rather than solid, it will go to a lower melting point - allowing more solid to become liquid and hence when we increase pressure, the melting point of ice decreases because of the inverse relationship between the pressure and melting point of ice.
31. (A) Longitudinal waves cannot travel through vacuum because such wave requires a



medium such as solid, liquid or air to travel through. They cannot travel through vacuum or in space. Longitudinal waves, also known as “waves”, are waves that have the same direction the movement of the medium is in the same direction as, or the opposite direction to, the motion of the wave. Mechanical longitudinal waves are also called compressional waves or compression waves. Longitudinal waves include sound waves (vibrations in pressure, particle displacement, and particle velocity propagated in an elastic medium) and seismic P-waves (created by earthquakes and explosions).

32. (A) An electrostatic precipitator (ESP), or electrostatic air cleaner is a particulate collection device that removes particles from a flowing gas (such as air) using the force of an induced electrostatic charge. Electrostatic precipitators are highly efficient filtration devices that minimally impede the flow of gases through the device, and can easily remove fine particulate matter such as dust and smoke from the air stream. In contrast to wet scrubbers which apply energy directly to the flowing fluid medium, an ESP applies energy only to the particulate matter being collected and therefore is very efficient in its consumption of energy (in the form of electricity)
- 33.(C) In this case the given equation shows that the velocity is linear with time and therefore the particle is moving with constant acceleration because for a particle to acquire constant acceleration the graph of the velocity time graph should be in linear with the time function.
34. (C) Guglielmo Marconi sent out the first wireless signals. In the early summer of 1895 and despite an intervening hill, Marconi achieved signal transmission and reception over a distance of about 2km. Success was indicated initially by the need to fire a gun. The theory of relativity transformed theoretical physics and astronomy during the 20th century. When first published, relativity superseded a 200-year-old theory of mechanics stated by Isaac Newton. In 1900 Max Planck made a profound discovery in modern physics/ Quantum Theory. He showed (from purely formal/mathematical foundations) that light must be emitted and absorbed in discrete amounts if it was to correctly describe observed phenomena (i.e. Blackbody radiation). The Wright brothers, Orville (August 19, 1871-January 30, 1912), were two American brothers, inventors, and aviation pioneers who were

credited with inventing and building the world's first successful airplane and making the first controlled, powered and sustained heavier-than-air human flight, on December 17, 1903.

35. (B) The sky is blue because the molecules in the air scatter light in the higher wavelengths (that is, the blue light), while lower wavelength light (that is, the light on the red end of the spectrum) goes through to the ground. So the light that get finally reflected down from the scattering is blue, therefore a blue sky. This is called Rayleigh scattering. Rayleigh scattering, named after the British physicist Lord Rayleigh, is the elastic scattering of light or other electromagnetic radiation by particles much smaller than the wavelength of the light. The particles may be individual atoms or molecules. It can occur when light travels through transparent solids and liquids, but is most prominently seen in gases.
36. (B) A dynamo is a device for converting mechanical energy into electrical energy, one that produces direct current. A dynamo is an electrical generator that produces direct current with the use of a commutator. Dynamos were the first electrical generators capable of delivering power for industry, and the foundation upon which many other later electric-power conversion devices were based, including the electric motor, the alternating-current the disadvantages of a mechanical commutator. Also converting alternating to direct current using power rectification devices (Vacuum tube or more recently solid state) is effective and usually economic.
37. (D) It is because of the capillary action phenomenon because of which oil rise up the wick in a lamp. Capillary action, or capillarity, is the ability of a liquid to flow in narrow spaces without the assistance of and in opposition to external forces like gravity. The effect can be seen in the drawing up of liquids between the hairs of a paint-brush, in a thin tube, in porous materials such as paper, in some non-porous materials such as paper, in some non-porous materials such as liquefied carbon fibre, or in a cell. It occurs because of inter-molecular attractive forces between the liquid and solid surrounding surfaces.
38. (B) Sodium bicarbonate or sodium hydrogen carbonate is the chemical compound with the formula  $\text{NaHCO}_3$ . Sodium bicarbonate is a white solid that is crystalline but often

appears as a fine powder. It has a slightly salty, alkaline taste resembling that of washing soda (sodium carbonate). The natural mineral form is nahcolite. It is a component of the mineral form is nahcolite. It is a component of the mineral natron and is found dissolved in many mineral springs.

39. (A) Saccharin can be produced in various ways. The original route by Remsen & Fahlberg starts with toluene. Saccharin is an artificial sweetener. The basic substance, benzoic sulfonamide, has effectively no food energy and is much sweeter than sucrose, but has a bitter or metallic aftertaste, especially at high concentration. It is used to sweeten products such as drinks, candies, cookies, medicines, and toothpaste.
40. (B) Polyvinyl chloride is produced by polymerization of the monomer vinyl chloride (VCM). Polyvinyl chloride, commonly abbreviated PVC, is the third-most widely produced plastic, after polyethylene and polypropylene. PVC is used in construction because it is cheaper and stronger than more traditional alternatives such as copper or ductile iron. It can be made softer and more flexible by the addition of plasticizers, the most widely used being phthalates. In this form, it is used in clothing and upholstery, electrical cable insulation, inflatable products and many applications in which it replaces rubber.
41. (C) The most prevalent bulk material for solar cells is crystalline silicon (abbreviated as a group as c-Si), also known as "solar grade silicon". But, silicon is separated into multiple categories according to crystallinity and crystal size in the resulting into, ribbon.
42. (A) A gemstone or gem (also called a precious or semi-precious stone, a fine gem, or jewel) is a piece of mineral, which, in cut and polished form, is used to make jewelry or other adornments. However certain rocks (such as lapis lazuli) and organic materials (such as amber or jet) are not minerals, but are still used for jewelry, and are therefore often considered to be some soft minerals are used in jewelry because of their luster or other physical properties that have aesthetic value. Topaz, Opal and Pearl are gemstones but Cat's-eye is not a gem stone.
43. (A) Fatty Acids are aliphatic carboxylic acid with varying hydrocarbon lengths at one end of the chain joined to terminal carboxyl (-COOH) group at the other end. The general formula is  $R-(CH_2)_n-COOH$ . Fatty

acids are predominantly unbranched and those with even numbers of carbon atoms between 12 and 12 carbons long react with glycerol to form lipids (fat-soluble components of living cells) in plants, animals, and microorganisms. Sunflower oil is high in the essential vitamin E and has no essential saturated fat.

44. (A)
45. (B) The fibre least prone to catch fire is cotton. Fabrics with more of the fiber surface area exposed to air have more oxygen available to support burning and therefore burn more easily. Thus, thin, gauzy fabrics, lace, or brushed surface of fine fibers can catch fire easily because of the greater amount of fiber surface exposed to oxygen in the air.
46. (A) The most common use (70%) of carbon black is an pigment and reinforcing phase in automobile tires. Carbon black also helps conduct heat away from the tread and belt area of the tire, reducing thermal damage and increasing tire life. Carbon black particles are also employed in some radar absorbent materials and in photocopier and laser printer toner. It is a material produced by the incomplete combustion of heavy petroleum products such as FCC tar, coal tar ethylene cracking tar, and a small amount from vegetable oil.
47. (C) A magnetic alloy is a combination of various metals from periodic table that contains at least one of the three main magnetic elements: iron (Fe), nickel (Ni), and cobalt (Co). Such an alloy must contain but is not limited to one or more of these metals. Magnetic of steel (iron and carbon) alnico (iron, nickel, cobalt, and aluminum,) and permalloy (iron and nickel.) The strongest magnetic element is iron, which allows items made out of these alloy to attract to magnets.
48. (B) Vitamin A is found naturally in many foods: liver (beef, pork, chicken, turkey, fish) (6500 IU 722%), including cod liver oil; dandelion greens (5588 IU 112%); carrot (835 IU 93%); broccoli leaf (800 IU 89%); spinach (469 IU 52%); collard greens (333 IU 37%), etc. Brewer's yeast is often taken as a powder, or as tablets or capsules. High-quality brewers yeast powder or flakes contain as much as 60 mcg of powder or flakes contain as much as 60 mcg of chromium per tablespoon (15 grams). The B-complex vitamins in brewers yeast include B<sub>1</sub> (biotin). These vitamins help break down carbohydrates, fats, and proteins, which provide the body with energy. Wheat germ oil is extracted from the germ of the wheat kernel, which

makes up only 2.5% by weight of the kernel. Wheat germ oil is very high in vitamin E, and has the highest content of vitamin E of any food that has not undergone prior preparation or vitamin fortification. Raw cabbage is a good source of vitamins, minerals, and fiber that help protect our body. All cabbage types provide vitamin C, folic acid, potassium, manganese, magnesium, riboflavin and thiamine.

49. (C)

50. (B) Olericulture is the science of vegetable growing, dealing with the culture of non-woody (herbaceous) plants for food. The Pomo is a name for between five and seven different Native American groups with similar cultures but very different languages. Agronomy encompasses work in the areas of plant science, Agronomy is the application of a combination ecology, earth science, and genetics, Agronomists today are involved with many issues including producing food, creating energy from plants.

51. (C) The carrot gets its characteristic and bright orange colour from  $\alpha$ -carotene, which is partly metabolised for the orange colour of carrots and many other fruits and vegetables. The term carotene (also carotid, from the Latin carota, or carrot) is used for several related unsaturated hydrocarbon substances having the formula  $C_{40}H_x$ , which are synthesized by plants but cannot be made by animals. Carotene is an orange photosynthetic pigment important for photosynthesis. Carotenes are all colours of many other fruits and vegetables (for example, sweet potatoes and orange cantaloupe melon).

52. (D) A biofertilizer is substance which contains living microorganisms which, when applied to seed, plant surfaces, or soil, colonizes the rhizosphere or the interior of the plant and promotes growth by increasing the supply or availability of primary nutrients to the host plant. Bio-fertilizers add nutrients solubilizing phosphorus, and stimulating plant growth through the synthesis of growth-promoting substances. Bio-fertilizers eco friendly organic agro input and more cost-effective than chemical fertilizers. Bio-fertilizers such as Rhizobium, Azotobacter, Azospirillum and blue green algae (BGA) have been in use a long time. Blue green algae belonging to a general cyanobacteria genus, Nostoc or Anabaena or Tolypothrix or Aulosira, fix atmospheric nitrogen and are used an inoculations for paddy crop

grown both under upland and low-land conditions.

53. (B) Severe acute respiratory syndrome (SARS) is a serious form was first identified in 2003. Infection with the SARS virus causes acute respiratory distress (severe breathing difficulty) and sometimes death. SARS is a dramatic example of how quickly world travel can a connected health system can respond to a new health threat system can respond to a new coronavirus family of viruses (the same family that can causes the common cold). It is believed the 2003 epidemic started when the virus spread from small mammals in China.

54. (A) A vector-borne disease is one in which the pathogenic microorganism is transmitted from an infected individual to another individual by an arthropod or other agent, sometimes with other animals serving as intermediary hosts. The transmission depends upon the attributes and requirements of at least three different living organisms: the pathologic agent, either a virus, protozoa, bacteria, or helminth (worm); the vector, which are commonly arthropods such as ticks or intermediary hosts such as domesticated and/or wild animals often serve as a reservoir for the pathogen until susceptible human population is infected by vector-borne disease.

55. (D) Camels, in ideal conditions, can go 6-7 months without water but as the temperature rises they have drink water more often. Camels are well known for their humps. They do not, however, literally store water in them as is commonly believed, though they do serve this purpose through roundabout means. Their humps are reservoir of fatty tissue, while water is stored in their blood. However, when this tissue is metabolised, it is not only a source of energy, but yields through reaction with oxygen from the air 1111 g of water per 1000 g of fat. This allows them to survive without water for about two weeks, and without food for up to a month. Camels are able to consumption that would kill most other animals. Their temperature ranges from 34°C at night and up to 40°C during the day. Camels rarely sweat, even when ambient temperatures reach 49°C. Any sweat that does occur evaporates at the skin level rather than vaporization therefore comes from body heat rather than ambient heat. Camels can withstand losing 25% of their body weight to sweating (most mammals can withstand only about



12-14% dehydration before cardiac failure results from circulatory disturbance). A feature of their nostrils is large amounts of water vapor in their exhalations is trapped and returned to their body fluids, thereby reducing the amount of water lost through respiration. The kidneys and intestines of a camel are very efficient at retaining water.

56. (D) Coagulation is the process by which blood forms clots. It is an important part of hemostasis, the cessation of blood loss from a damaged vessel, wherein a damaged blood vessel wall is covered by a platelet and fibrin-containing clot to stop bleeding and begin repair of the damaged vessel. Disorders of coagulation can lead to an increased risk of bleeding (hemorrhage) or obstructive clotting (thrombosis). Coagulation begins almost instantly after an injury to the blood vessel has damaged the endothelium lining the vessel. Exposure of the blood to proteins such as tissue factor initiates changes to blood platelets and the plasma protein fibrinogen, a clotting factor. Platelets called primary hemostasis, Secondary hemostasis occurs simultaneously: Proteins in the blood plasma, called coagulation factors or clotting factors, respond in a complex cascade to form fibrin strands, which strengthen the platelet plug.
57. (A) Homeopathy is a system of alternative medicine originated in 1796 by Samuel Hahnemann, based on his doctrine of similia similibus curenture ("like cures like"), according to which a substance that causes the symptoms of a disease in healthy people will cure that disease in sick people. Homeopathy is vital force or life force. Disturbances are believed to manifest themselves first in mental symptoms, and eventually progress to physical disease if untreated. Homeopathy pathogens as a symptom, and eventually progress to physical disease if untreated. Homeopathy rejects germ theory, viewing the presence of pathogens as a symptom, rather than cause, of disease. Hahnemann observed from his experiments that the effects he experienced from ingesting the bark were similar to the symptoms of malaria. He therefore decided cure proceeds through similarity, and treatments must be able to produce symptoms in healthy individuals similar to those of the disease being treated.
58. (B) Parthenogenesis is a form of a sexual reproduction in which growth and

development of embryos occur without fertilization. In plants, parthenogenesis means development of an embryo from an embryos occur without fertilization. In plants, parthenogenesis means development of an embryo from an unfertilized egg cell, and is a component process of apomixes. Parthenogenesis occurs naturally in many plants, some invertebrate animal species (including nematodes, water fleas, some scorpions, aphids, some bees, some Phasmid, and parasitic wasps) and a few vertebrates (such as some fish, amphibians, reptiles, and very rarely birds). This type of reproduction has been induced artificially in a few species including fish and amphibians.

59. (C) The body needs access to iron to produce red blood cells. A lack of iron can lead to anaemia. Vitamin A has an essential role in vision (especially night vision). normal bone growth, reproduction and the health of skin and mucous membranes. It also acts as an antioxidant, protecting the body from harmful free antioxidant, protecting the body from harmful free radicals - this may help to reduce the risk of certain forms of cancer. Vitamin C is needed for normal growth and development, growth and repair of tissues within the body, formation of collagen, cartilage, bones and teeth, and wound healing. A deficiency can result is scurvy. This causes muscle weakness, joint pain and problems with wound healing. It can also lead to loose teeth, bleeding and swollen gums, easily bruised skin and fatigue, and sometimes depression. Having too little calcium in the diet increases risk of a hormone condition that can cause bone fractures and kidney stones. Primary hyperparathyroidism (PHPT) affects around one in 800 people during their lifetime and is most common in post-menopausal women.
60. (C) Dialysis is the artificial process of getting rid of waste (diffusion) and unwanted water (ultrafiltration) from the blood. This process is naturally done by our kidneys. It is the artificial replacement for lost kidney function (renal replacement therapy). The elimination of unwanted water (ultrafiltration) occurs through osmosis - as the dialysis solution has a high concentration of glucose, it results in osmotic pressure which causes the fluid to move from the blood into the dialysate. Consequently, a larger quantity of fluid is drained than introduced.



61. (B) The blood sugar concentration or blood glucose level is the amount of glucose (sugar) present in the blood of a human or animal. The body naturally tightly regulates blood glucose levels as a part of metabolic homeostasis. The mean normal blood glucose level in humans is about 4 mM (4 mmol/L or 72 mg/dL, i.e. miligrams/deciliter): however, this level fluctuates throughout the day. Glucose levels are usually lowest in the morning, before the first meal of the day (termed "the fasting level"), and rise after meals for an hour or two by a few milimolar. Normal Human Glucose Blood Test results should be 70-130 (mg/dL) before meals, and less than 180 mg/dL after meals (as measured by a blood glucose monitor). So we find that before meals, the highest end is 130 and after meals it is 180. So 120-150 mg/dl can be taken to be the range.
62. (A) Humans are primates of the family Hominidae and the only extant species of the genus Homo. They originated in Africa, where they reached anatomical modernity about 200,000 years ago. The species binomial Homo sapiens was coined by Carl Linnaeus in his 18th century derivation from Latin homo "man", ultimately "earthly being" (Old Latin homo, a cognate to Old English guma "man", meaning 'earth' or 'ground'). The species-name sapiens means "wise" or "sapient".
63. (B)
64. (B) Once cut, sugarcane begins to lose its sugar content, and damage to the cane during mechanical harvesting accelerates this decline. Sugarcane is cultivated in the tropics and subtropics in areas with plentiful supply of water, for continuous period of more than six to seven months each year, either from natural rainfall or through irrigation. The crop does not tolerate severe frosts. Therefore, most of the world's sugarcane is grown between 22°N and 22°S, and some up to 33°N and 33°S. Sugarcane requires a fairly dry, sunny and coll, but frost free season for ripening and harvesting - moisture percentage drops steadily throughout the life of the sugarcane plant, from 83% in very young cane to 71% in mature cane, meanwhile sucrose grows from less than 10 to more than 45% of the dry weight.
65. (B) "Survival of the fittest" is a phrase originating in evolutionary theory, as an alternative description of natural selection. The phrase is today commonly used in context that are incompatible with the original meaning as intended by its first two proponents: British polymath philosopher Herbert Spencer (who coined the term) and Charles Darwin. Herbert Spencer first used the phrase - after reading Charles Darwin's on the Origin of Species - in his Principles of Biology (1864), in which he drew parallels between his own economic theories used Spencer's new phrase "survival of the fittest" as a synonym for natural selection in the fifth edition of on the Origin of Species, published in 1869.
66. (C) Rickets is a softening of bones in children due to deficiency or impaired metabolism of vitamin D, phosphorus or calcium, potentially leading to fractures and deformity. Rickets is among the most frequent childhood diseases in many developing countries. The predominant cause is a vitamin D deficiency, but lack of adequate calcium in the diet may also lead to rickets (cases of severe diarrhoea and vomiting may be the cause of the deficiency). Although it can occur in adults, the majority of cases occur in children suffering from severe malnutrition, usually resulting from famine or starvation during the early stages of childhood.
67. (D) The 28th edition of ASEAN Summit 2016 has started in Vientiane, Laos. In the summit, the ASEAN leaders will review the progress of implementation of ASEAN Community Blueprints 2025.
68. (A) Nuakhai, the agrarian mass festival of Kosali people, has celebrated in western Odisha on September 6, 2016 to welcome the new rice of the season. Every year, the festival is observed on panchami tithi, the day after Ganesh Chaturthi. It is a festival for the worship of food grain.
69. (B) In a bid to clean up the examination system after the toppers scam, the Bihar School Examination Board (BSEB) will link exam forms with Aadhaar card to avoid duplication. This new initiative is the first to be implemented by any state board in India. As per the new initiative, when the students will apply for examinations, they will have to specify their Aadhaar card number. In case any student is unable to provide Aadhaar number along with the

examination form, he or she will have to put forward a strong reason for not doing so before the school principal. The move will not only add to greater transparency in the exam process but also facilitate easy access to documents.

70. (C) Nico Rosberg, a German Formula One driver for Mercedes Formula One team, has won the 2016 Italian Grand Prix Formula One World Championship in Monza, Italy.
71. (C) MobiKwik has recently launched “Bubble Pin” a one-step offline payments mode, which allows users to make payments even without data connection. The MobiKwik app will generate a pin with a 60-second validity when the ‘Pay at store’ option is clicked. Then, users need to share the unique pin with the retailer to make the payment. The pin is a combination of numbers and alphabets. Bubble pin also makes the transaction more secure as no phone number is required to be shared. Users will soon use MobiKwik ‘Bubble Pin’ in over 25,000 offline stores across India.
72. (B) J Satyanarayana, the former IAS officer, has been appointed as the part-time chairperson of Unique Identification Authority of India (UIDAI). The post has been lying vacant following resignation of Infosys co-founder Nandan Nilekani’s resignation in 2014. Besides him, technocrats Rajesh Jain and Anand Deshpande have been appointed as part-time members of the UIDAI.
73. (C) The first edition of Nomad Film Festival 2016 has started at the India Islamic Cultural Centre in New Delhi to raise awareness and change perceptions regarding the denotified tribes. It will showcase short films as well as documentaries on the lives of the tribes. The tribes were listed as ‘Criminal Tribes’

under the 1871 Criminal Tribes Act during the British rule.

74. (B) Recently, India’s mixed doubles pair of Sikki Reddy and Pranaav Jerry Chopra has clinched their Brazil Open Grand Prix Badminton title 2016 by defeating Canadian combo of Toby Ng and Rachel Honderich 21-15, 21-16 in straight games at Costa Cavalcante.
75. (B)
76. (B)
77. (B) Energy like any other resource is also gendered. The women and children of the rural household suffered the most in lack of the reliable source of clean energy.
78. (B)
79. (D)
80. (C)
81. (D)
82. (D)
83. (D)
84. (A)
85. (C) Satyagraha and sarvodaya were Mahatma Gandhi’s most significant and revolutionary contributions to contemporary political thought. He felt that the exercise of satyagraha could be carried out through non-cooperation. Civil disobedience and non-cooperation as practised under Satyagraha are based on the “law of suffering”, a doctrine that the end usually implies a moral upliftment of progress of an individual or society. Therefore, non-cooperation in Satyagraha is in fact a means to secure the cooperation of the opponent consistently with truth and justice.
86. (A) Narsingh Mehta was a poet-saint of Gujarat, India, and member of the Nagar Brahmins community, notable as bhakta, an exponent of Vaishnava poetry. He is especially revered in Gujarati literature, where he is acclaimed as its Adi Kavi (Sanskrit for “first among poets”). His bhajan, ‘Vaishnav Jan To’ was Mahatma Gandhi’s favourite and had become synonymous to him. The bhajan tells us about the life, ideals and mentality of a Vaishnav Jana (A follower of Vishnu of Krishna).

87. (C) Jawaharlal Nehru, gave this following speech is India's first Prime Minister to the Constituent Assembly in New Delhi at midnight on August 14, 1947: "At the stroke of midnight hour, when the world sleeps, India will awake to life and freedom. A moment comes which comes but rarely in history, when we step out from the old to the new, then an age ends, and when the soul of a nation, long suppressed, finds utterance. It is fitting that at this solemn moment we take the pledge of dedication to India and her people and to the still larger cause of humanity."
88. (A) A dispute between the textile mill-owners and the labourers at Ahmedabad arose in 1918, about the grant of bonus and dearness allowance. The labourers wanted 50% increase allowance due to steep rise in prices. The mill-owners were ready to give only 20% increase. Gandhi was approached to find a solution. He persuaded both the parties to agree to arbitration. But after a few days, some misunderstanding led to a strike. The mill-owners seized the opportunity and declared lock-out. Gandhi studies the case. He thought that 35% increase would be reasonable. He advised the labourers to demand the same. Regular campaign attacked less publicity because it was directed against Indian employers, not government officials. During this episode, the mill-owners was led by Shri Ambalal Sarabhai. His sister Ansuayaben led the labourers.
89. (B) Mohandas Karamchand Gandhi was 24 when he arrived in South Africa in 1893 to work as a legal representative for the Muslim Indian Traders based in the city of Pretoria. In January 1897, when Gandhi landed in Durban, a mob of white settlers attacked him and he escaped only through the efforts of the wife of the police superintendent. He, however, refused to press charges against any member of the mob, stating it was one of his principles not to seek redress for a personal wrong in a court of law.
90. (D) Jivatram Bhagwandas Kripalani, popularly known as Acharya Kripalani, was an Indian politician, noted particularly for holding the presidency of the Indian 1947. During the election for the post of the future Prime Minister of India held by the Congress party, he had the second highest number of votes after Sardar Patel. However, on Gandhi's insistence, both Patel and Kripalani backed out to allow Jawahar Lal Nehru to become the first Prime Minister of India.
91. (D) Gandhi firmly believed that "the means always away the end. So he chose only good means always away the British from India. He never resorted to means. Means and end are convertible terms in may philosophy of life."
92. (B) The Story of My Experiments with Truth An Autobiography brings out that all of his life, experiments with food were to be part of Gandhi's experiments with truth. While in England, where food is sometimes tasteless anyway, he decided he could do without condiments, for "the real seat of taste is not the tongue but the mind."
93. (C)
94. (C) The Salt March, also known as the Salt Satyagraha, began with the Dandi March on March 12, 1930. The Salt Satyagraha was the next significant non-cooperation movement of 1920-22 and India's First war of Independence 1857. It was a direct action campaign of tax resistance and nonviolent protest against the British salt monopoly in colonial India, and triggered the wider Civil Disobedience Movement. This was the most significant organized challenge to British authority since the Non-cooperation movement of 1920-22, and directly followed the Purna Swaraj declaration of independence by the Indian National Congress on January 26, 1930.
95. (A) Ukai Dam Constructed across the Tapti River is largest reservoir in Gujarat. It is also known as Vallab Sagar. The Rana Pratap Sagar Dam is a gravity masonry dam of 53.8 metres height built on the Chambal River at Rawatbhata in Rajasthan. The Ranjit Sagar Dam, also known as the Thien Dam, is part of a hydroelectric project constructed by the Government of Punjab on the Ravi River in the state of Punjab. Hirakud Dam is built across the Mahanadi River, about 15 km from Sambalpur in the state of Orissa in India. Built in 1957, the dam is one of the world's longest earthen dam.
96. (C) The Nathpa Jhakri Dam is a concrete gravity dam on the Sutlej River in Himachal Pradesh, India. The primary purpose of the dam is hydroelectric power production and it supplies a 1,500 MW underground power station with water. Construction on the project began in 1993 and it was completed in 2004. It is owned by SJVN Ltd.

97. (A) Pune is on the leeward side of the western ghats and so lies on a rain shadow area. The south west monsoon empties all moisture on the windward side of the mountain range and reaches Pune with less moisture after crossing the mountain range. But Mumbai lies on the windward side and hence experiences heavy rainfall.
98. (B) The burst of monsoons in the month of June brings rain to Kerala and southern coast of Tamil Nadu.
99. (A) The typical natural vegetation above 3600 metres on the Himalayas is Alpine grassland. Important trees are silver fir, birch etc.
100. (D) Delhi gets winter rainfall due to western disturbance.