

## CHO Exam Sample Paper

**Q1.** According to the World Health Organization (WHO), if the weight of a newborn at the time of birth is ..... or less, it is termed as low birth weight, even if the baby is full-term.

- (a) 2.5 kg
- (b) 3 kg
- (c) 6 kg
- (d) 4 kg

**Q2.** Which of the following is a disorder of the white blood cells?

- (a) Purpura-ITP
- (b) Leukaemia
- (c) Haemophilia
- (d) Anaemia

**Q3.** The Integrated Child Development Service (ICDS) Scheme was launched in which year in India?

- (a) 1980
- (b) 1975
- (c) 1999
- (d) 1988

**Q4.** Immediately at birth, irrespective of the condition of the baby, which of the following should be the first step?

- (a) Positioning
- (b) Warmth
- (c) Tactile stimulation
- (d) Suctioning

**Q5.** The ventricles of the heart are separated from each other by which of the following?

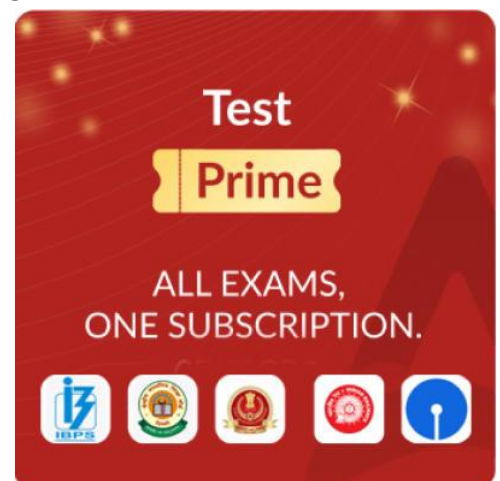
- (a) Interatrial septum
- (b) Interventricular septum
- (c) Sinus
- (d) Auricle

**Q6.** The human heart is a muscular organ with how many chambers?

- (a) Six-chambered
- (b) Four-chambered
- (c) Two-chambered
- (d) Three-chambered

**Q7.** According to medical-surgical nursing, which is the most important universal precaution and technique for infection control and prevention?

- (a) Ventilation
- (b) Hand hygiene
- (c) Disinfection
- (d) Use of masks



**Q8.** According to wound care and the “nurse-patient” relationship, what is the first step in the wound dressing process?

- (a) Reassuring or positioning the patient comfortably
- (b) Removing dirty dressing or any foreign material
- (c) Handwashing
- (d) Observing the wound type and severity

**Q9.** What is asepsis?

- (a) The removal of all foreign material such as soil or organic material
- (b) The presence of pathogens like bacteria, virus, and other microbes
- (c) The act of soiling or contamination
- (d) The absence of pathogens like bacteria, virus, and other microbes

**Q10.** The fluid part of the blood is known as:

- (a) Plasma
- (b) Platelets
- (c) Haemoglobin
- (d) White blood cells

**Q11.** What is sepsis?

- (a) Transmission of disease from an infected person to another
- (b) An attempt by the body to limit the spread of infection in a localized area
- (c) A systemic inflammatory response caused by infection leading to release of toxins
- (d) Entry of microbes into the human body from an external source

**Q12.** A nosocomial infection is also known as:

- (a) A respiratory tract infection
- (b) An infection with which a patient may have come to the hospital
- (c) A hospital-acquired infection
- (d) A urinary tract infection

**Q13.** The World Health Organization has defined 'Health' as—

- (a) Physical, mental and social well-being
- (b) Mental and physical well-being only
- (c) Social well-being only
- (d) Physical well-being only

**Q14.** Which of the following is NOT a vector-borne disease?

- (a) Malaria
- (b) Encephalitis
- (c) Typhoid
- (d) Yellow fever

**Q15.** Which of the following nutrients are also known as 'energy giving foods'?

- (a) Proteins
- (b) Minerals
- (c) Carbohydrates and fats
- (d) Vitamins

**Q16.** The atmosphere of asbestos mines contains asbestos dust. Which of the following diseases can be caused by long-term exposure to this?

- (a) Asbestosis
- (b) Asbestosis silica
- (c) Silicosis
- (d) Silica asbestosis

**Q17.** What is the process of disease transmission through water, food, or utensils called?

- (a) Vehicle-borne transmission
- (b) Vector-borne transmission
- (c) Direct physical contact transmission
- (d) Airborne transmission

**Q18.** Which food is considered the most nutritious and complete meal for young children?

- (a) Milk
- (b) Fruits
- (c) Eggs and meat
- (d) Pulses

**Q19.** Which of the following schemes has been launched by the Government of India to make India an 'Open Defecation Free (ODF)' nation?

- (a) Swachh Bharat Mission
- (b) Bharat ki Swachhata Bharat ki Sundarta Yojana
- (c) Safe Disposal of Human Excreta Mission
- (d) Open Defecation Free Mission

**Q20.** Which of the following schemes has been launched by the Government of India to ensure safe drinking water to every rural household through 'Functional Household Tap Connection (FHTC)'?

- (a) Jal Jeevan Mission
- (b) Swachh Gramin Peyjal Yojana
- (c) Jal Jeevan Hariyali Mission
- (d) Swachh Jal Khushi Ke Do Pal

**Q21.** RBSK includes 4 D's, except:

- (a) Defects after birth
- (b) Developmental delays
- (c) Diseases in childhood
- (d) Deficiency conditions

**Q22.** Which of the following is the correct way to express the prevalence of any disease?

- (a) Prevalence = Incidence rate ÷ Average duration
- (b) Prevalence = Incidence rate + Average duration
- (c) Prevalence = Incidence rate × Average duration
- (d) Prevalence = Average duration ÷ Incidence rate

**Q23.** Thrombocytopenia means:

- (a) Low platelet count
- (b) High platelet count
- (c) Thrombosis
- (d) Hypercoagulopathy

**Q24.** What is the use of Snellen chart?

- (a) To diagnose jaundice
- (b) To assess visual acuity
- (c) To assess color blindness
- (d) To diagnose cataract

**Q25.** Sudden jerking causes sudden extension and abduction of extremities in newborn, is known as –

- (a) Moro reflex
- (b) Babinski reflex
- (c) Gag reflex
- (d) Grasp reflex

**Q26.** Cracked pot sound or Macewen sign is characteristic sign of –

- (a) Hydrocephalus
- (b) Spina bifida
- (c) Meningitis
- (d) Pyloric stenosis

**Q27.** Portal vein hypertension occurs in –

- (a) Diabetes Mellitus
- (b) Liver cirrhosis
- (c) Cholecystitis
- (d) Nephritis

**Q28.** The care provided by skilled health care professionals during pregnancy is known as –

- (a) Post-operative care
- (b) Postnatal care
- (c) Antenatal care
- (d) Specialised health care

**Q29.** Hemopoiesis means –

- (a) Synthesis of RBC
- (b) Destruction of RBC
- (c) Synthesis of proteins
- (d) Synthesis of DNA

**Q30.** In PCOD all are true, except –

- (a) ↑ LH & ↑ FSH
- (b) ↑ LH & ↓ FSH
- (c) Amenorrhoea
- (d) Hirsutism

**Q31.** With reference to the National Rural Health Mission, which of the following is not the job of ASHA (Accredited Social Health Activist)?

- (a) Providing information on nutrition and immunization
- (b) Accompanying women to the health facility for antenatal care checkup
- (c) Conducting the delivery of a baby
- (d) Using pregnancy test kits for early detection of pregnancy

**Q32.** Hardness of water is due to the presence of salts of –

- (a) Chlorine
- (b) Boron
- (c) Magnesium
- (d) Potassium

**Q33.** Fat-soluble vitamin known as anti-sterility vitamin is –

- (a) Vitamin D
- (b) Vitamin K
- (c) Vitamin E
- (d) Vitamin A

**Q34.** Canned food poisoning is commonly linked to which of the following microorganisms?

- (a) Clostridium botulinum
- (b) Vibrio cholerae
- (c) Staphylococcus aureus
- (d) Taenia solium

**Q35.** Most common congenital heart anomaly is –

- (a) Patent Ductus Arteriosus
- (b) Atrial Septal Defect
- (c) Tricuspid atresia
- (d) Ventricular Septal Defect

**Q36.** Colostomy is a surgical procedure, which means –

- (a) Cleaning of colon
- (b) Complete removal of colon
- (c) Opening of colon through abdomen
- (d) Artificial opening made in stomach

**Q37.** The Employees State Insurance Act covers employees drawing wages not exceeding?

- (a) Rs. 19,000 per month
- (b) Rs. 20,000 per month
- (c) Rs. 21,000 per month
- (d) Rs. 22,000 per month

**Q38.** A geriatric patient receives calcium and vitamin D supplementation to reduce the risk of osteoporosis. This action is which type of prevention?

- (a) Primary Prevention
- (b) Secondary Prevention
- (c) Tertiary Prevention
- (d) Primordial Prevention

**Q39.** Which stage of the demographic cycle is characterized by a low birth rate and low death rate?

- (a) High Stationary
- (b) Early Expanding
- (c) Low Stationary
- (d) Late Expanding

**Q40.** At sub-centre, IUD is inserted by:

- (a) Multi-Purpose Worker (MPW)
- (b) ASHA
- (c) Both of the above
- (d) None of the above

**Q41.** Which drug is not used in postpartum hemorrhage (PPH)?

- (a) Oxytocin
- (b) Methergin
- (c) Mifepristone
- (d) Misoprostol

**Q42.** To calculate the Expected Date of Delivery (EDD), how many days should be added to the first day of the last menstrual period?

- (a) 9 months
- (b) 9 months 2 days
- (c) 9 months 7 days
- (d) 9 months 14 days

**Q43.** What is the normal respiratory rate in a pregnant woman?

- (a) 12-16 per minute
- (b) 18-20 per minute
- (c) 18-24 per minute
- (d) 20-24 per minute

**Q44.** After how many weeks of pregnancy can fetal heart sounds be heard using a Fetoscope?

- (a) 12 weeks
- (b) 20 weeks
- (c) 24 weeks
- (d) 32 weeks

**Q45.** A pregnant woman is considered anemic when the hemoglobin (Hb) level falls below?

- (a) 13 g%
- (b) 12 g%
- (c) 11 g%
- (d) 10 g%

**Q46.** What does IUCD stand for?

- (a) Intrauterine control device
- (b) Intrauterine copper device
- (c) Intrauterine contraceptive device
- (d) Intrauterine continuous device

**Q47.** What is the normal fetal heart rate (FHR)?

- (a) 60-80 per minute
- (b) 100-120 per minute
- (c) 120-160 per minute
- (d) 160-180 per minute

**Q48.** Which tests should be conducted in every antenatal check-up?

- (a) Hemoglobin, Urine sugar, HCG
- (b) Hemoglobin, Urine sugar, Urine Albumin
- (c) Hemoglobin, Blood sugar, Urine sugar
- (d) Hemoglobin, Urine sugar, HPL

**Q49.** A pregnant woman received the first Tetanus Toxoid (TT) vaccine at four months of pregnancy. Now, she has come for a check-up in the eighth month. What should be done regarding the TT vaccine?

- (a) TT vaccine will not be given.
- (b) The second dose of the TT vaccine will be given.
- (c) Instead of 0.5 ml, a 1.0 ml dose of the TT vaccine will be given.
- (d) The TT vaccine will be given today, and the woman will be asked to return after 15 days for another TT dose.

**Q50.** What is used to measure hemoglobin levels?

- (a) NaCl
- (b) N/10 HCl
- (c) NaOCl
- (d) NaOH

**Q51.** Counseling for problems related to sexual health is done at which level of service provision?

- (a) District hospital
- (b) Primary health centre
- (c) Community health centre
- (d) All of the above

**Q52.** What is the full form of BMI?

- (a) Body Metabolic Index
- (b) Basic Metabolic Index
- (c) Body Mass Index
- (d) Basic Mass Index

**Q53.** Overweight refers to a BMI of?

- (a) Less than  $18.5 \text{ kg/m}^2$
- (b) More than  $25.0 \text{ kg/m}^2$
- (c) Less than  $25.0 \text{ kg/m}^2$
- (d) More than  $18.5 \text{ kg/m}^2$

**Q54.** ICTC stands for:

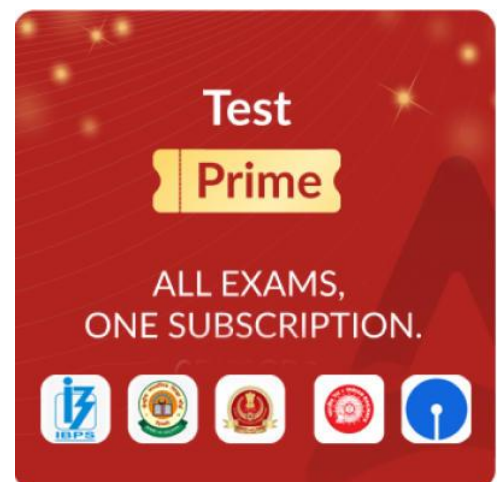
- (a) Integrated Centre for Testing of Chronic diseases
- (b) Integrated Counseling and Training Centre
- (c) Integrated Counseling and Testing Centre for HIV/AIDS
- (d) Integrated Child Training Centre

**Q55.** Adolescence is a transitional phase between:

- (a) Teenage and Adulthood
- (b) Childhood and teenage
- (c) Childhood and adulthood
- (d) Childhood and old age

**Q56.** Choose side effect of Oral contraceptive pills-

- (a) Pain in abdomen
- (b) Increased appetite
- (c) Loose motions
- (d) Intermittent spotting





**Q57.** Which method of contraception has the highest failure rates-

- (a) Coitus interruptus
- (b) Condoms
- (c) Oral contraceptive pills
- (d) Tubal ligation

**Q58.** What is 'Chhaya'-

- (a) A contraceptive pill
- (b) An injectable contraceptive
- (c) Brand name of a female condom
- (d) None of the above

**Q59.** How can healthy BIRTH SPACING be accomplished?

- (a) Rhythm Method
- (b) Barrier Method
- (c) Hormonal Method
- (d) All of the above

**Q60.** What is true about Mission Pariwar Vikas?

- (a) New name for Family Planning program
- (b) Relates to Contraceptives and family planning services
- (c) Giving all health services under Ayushman Bharat
- (d) Family Health Insurance Scheme

**Q61.** Which of the following is not a cause of blindness?

- (a) Refractive errors
- (b) Cataract
- (c) Conjunctivitis
- (d) Age-related macular degeneration

**Q62.** Which of the following types of road traffic accidents occurs when one car hits the back end of the car in front of it?

- (a) Rear-end collision
- (b) Head-on collision
- (c) Side-swipe collision
- (d) Side-impact collision

**Q63.** In the calendar year 2022, in India, how many lives were lost in road accidents, as per the report of the Ministry of Road Transport and Highways?

- (a) 11,68,491
- (b) 8,491
- (c) 68,491
- (d) 1,68,491

**Q64.** Which of the following tests is used to detect blood cancer?

- (a) Bone marrow biopsy
- (b) Endoscopy
- (c) Colposcopy
- (d) Colonoscopy

**Q65.** \_\_\_\_ is a condition that results in white or brown speckles on the teeth.

- (a) Narcosis
- (b) Sarcoidosis
- (c) Filariasis
- (d) Fluorosis

**Q66.** Which of the following is a cosmetic dental condition?

- (a) Tooth Decay
- (b) Fluorosis
- (c) Tooth Sensitivity
- (d) Bleeding Gums

**Q67.** Which is a characteristic symptom of fluorosis?

- (a) Gum bleeding
- (b) Glossitis
- (c) Cheilosis
- (d) Mottled enamel

**Q68.** What is the recommended dietary allowance for iodine for a 2-month-old boy?

- (a) 70 mcg per day
- (b) 110 mcg per day
- (c) 190 mcg per day
- (d) 250 mcg per day

**Q69.** Which of the following mental illnesses is characterized by a persistent pattern of inattention and/or hyperactivity-impulsivity that has a direct negative impact on academic, occupational, or social functioning?

- (a) Autism spectrum disorder
- (b) Attention deficit hyperactivity disorder
- (c) Schizophrenia
- (d) Post-traumatic stress disorder

**Q70.** In obesity, which hormone's resistance can lead to an individual's hunger and overeating?

- (a) Ghrelin
- (b) Cortisol
- (c) Leptin
- (d) Oxytocin

**Q71.** The NACP Phase-V aims to reduce annual new HIV infections and AIDS-related mortalities by \_\_\_\_ by 2025-26 from the baseline value of 2010.

- (a) 50%
- (b) 60%
- (c) 80%
- (d) 100%

**Q72.** What is the significance of the term PPTCT, in the context of the National AIDS and STD control programme?

- (a) Public Partnership for Tuberculosis Control and Treatment
- (b) Public Partnership for Tuberculosis in Children and Teenagers
- (c) Prevention of Parent to Child Transmission
- (d) Post-Primary Tuberculosis Control and Treatment

**Q73.** Which of the following programmes was renamed as National Iodine Deficiency Disorders Control Programme (NIDDCP) in August 1992?

- (a) Salt Iodisation Programme in India
- (b) National Goitre Control Programme (NGCP)
- (c) Nutrient Deficiency Control Programme
- (d) National Tobacco Control Programme

**Q74.** What is the purpose of Regulation 2.3.12 of the Food Safety and Standards (Prohibition and Restriction on Sales) Regulation, 2011?

- (a) Regulate the sale of non-iodized salt for direct human consumption
- (b) Regulate the sale of iodized salt for direct human consumption
- (c) Ensure the availability of adequately iodized salt for human consumption
- (d) Promote the sale of common salt without iodization

**Q75.** Which vaccine was developed entirely within India and is aimed at preventing cervical cancer?

- (a) Tetanus vaccine
- (b) Influenza vaccine
- (c) Hepatitis A vaccine
- (d) Cervavac vaccine

**Q76.** When was the Tobacco Free Initiatives established by WHO?

- (a) 1989
- (b) 1998
- (c) 2002
- (d) 2014

**Q77.** According to the National Health Profile 2021, what is the number of beds per thousand population in India?

- (a) 0.6
- (b) 0.9
- (c) 1.8
- (d) 2.5

**Q78.** The funding pattern for the Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) is \_\_\_\_.

- (a) Funded by private sector
- (b) Jointly funded by the central and state government
- (c) Fully funded by the central government
- (d) International donor agency funded

**Q79.** Which of the following is an objective of the National Rural Health Mission?

- (a) To reduce MMR (Maternal Mortality Rate) and IMR (Infant Mortality Rate) to 100/100000 and 30/1000 live births, respectively
- (b) To achieve hundred per cent coverage under Oral Polio Vaccine
- (c) To control and reduce the prevalence of diabetes
- (d) To reduce the production and supply of tobacco products

**Q80.** What are achievements of the 12th plan (Time period: 2012-2017) for the five-year plans of India?

- (a) Poverty reduction by 10%
- (b) Establishment of NREGA
- (c) Establishment of GSTs and launch of National Skill Development Mission
- (d) Establishment of NHA

**Q81.** Which of the following is a communicable disease–

- (a) Diabetes
- (b) Pertussis
- (c) Hypertension
- (d) Kwashiorkor

**Q82.** The objects/articles contaminated by HIV can be decontaminated using–

- (a) Formaldehyde
- (b) Methanol
- (c) Glutaraldehyde
- (d) Sodium hypochlorite

**Q83.** Which of the following statements is incorrect?

- (a) Tuberculosis is caused by Mycobacterium tuberculosis
- (b) People who are exposed to TB may or may not develop the disease
- (c) Persons with latent TB infection are not infectious and cannot spread infection to others
- (d) Every individual who is exposed to TB develops the disease

**Q84.** Symptoms of Dengue include all, except–

- (a) High Fever
- (b) Low-grade Fever
- (c) Eye pain
- (d) Joint pain

**Q85.** Painful and profoundly swollen limb/limbs are a long-term physical consequence of–

- (a) Lymphatic Filariasis
- (b) Dengue
- (c) Malaria
- (d) Yellow Fever

**Q86.** Which among the following is a sign of dehydration?

- (a) Decrease thirst
- (b) Dry Mouth
- (c) Increased urine output
- (d) Fever

**Q87.** The following diseases spread through respiratory route, except–

- (a) Influenza
- (b) Mumps
- (c) Measles
- (d) Typhoid

**Q88.** Which of the following pair of diseases is caused by viruses?

- (a) Rabies, Mumps
- (b) AIDS, Syphilis
- (c) Typhoid, Tetanus
- (d) Cholera, Tuberculosis

**Q89.** Typhoid fever is caused by–

- (a) Salmonella typhi
- (b) Human papilloma virus
- (c) Fungi
- (d) Plasmodium vivax

**Q90.** Koplik spots can be seen in–

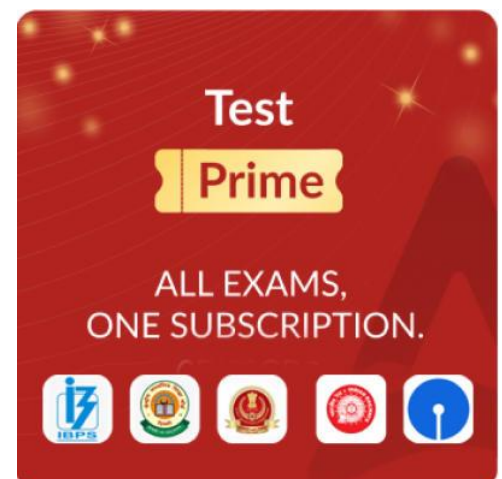
- (a) Measles
- (b) Chickenpox
- (c) Typhoid
- (d) Mumps

**Q91.** Indian Air Force Day is celebrated on .....?

- (a) October 8
- (b) October 30
- (c) November 15
- (d) September 15

**Q92.** Who is the governor of Maharashtra?

- (a) Anandiben Patel
- (b) Jayant Patil
- (c) Nitin Raut
- (d) Bhagat Singh Koshyari



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ALL EXAMS,  
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Logos of various exams: IBPS, SSC, UPSC, Railway, and others.

**Q93.** Which of the following is the capital of Meghalaya?

- (a) Gangtok
- (b) Imphal
- (c) Shillong
- (d) Agartala

**Q94.** World Mental Health Day is observed globally on every year?

- (a) 10th October
- (b) 15th November
- (c) 20th September
- (d) 20th August

**Q95.** Who won the French Open men's singles title in 2020?

- (a) Novak Djokovic
- (b) Rafael Nadal
- (c) Roger Federer
- (d) Stefanos Tsitsipas

**Q96.** Kuchipudi is the Classical Dance of .....State.

- (a) Andhra Pradesh
- (b) Tamil Nadu
- (c) Karnataka
- (d) Kerala

**Q97.** Who is the author of the book 'Grandparents' Bag of Stories'?

- (a) Paro Anand
- (b) Ruskin Bond
- (c) Anushka Ravishankar
- (d) Sudha Murty

**Q98.** International Nurses Day is observed around the world on?

- (a) 12th August
- (b) 12th September
- (c) 12th May
- (d) 12th November

**Q99.** Who is the Chairman of Board of Control for Cricket in India (BCCI)?

- (a) Rahul John
- (b) Anil Kumble
- (c) Sourav Ganguly
- (d) Shashank Manohar

**Q100.** Vishal Anand, who passed away recently was associated with which field?

- (a) Sports
- (b) Writing
- (c) Journalism
- (d) Acting

## Solutions

**S1.** As per WHO guidelines, a baby weighing less than or equal to 2.5 kg at birth is classified as having low birth weight. This includes full-term as well as preterm infants and often indicates risk of developmental issues and complications.

Explanation of each option:

- (a) 2.5 kg – Correct. Any baby born weighing 2.5 kg or less, regardless of gestational age, is considered to have low birth weight.
- (b) 3 kg – This is a normal average birth weight and does not fall under the low birth weight category.
- (c) 6 kg – This is extremely high for a newborn and may indicate abnormal growth or error in understanding.
- (d) 4 kg – This is higher than the average newborn weight and would be considered macrosomia, not low birth weight.

**S2.** Leukaemia is a cancer of the bone marrow and white blood cells (WBCs). It leads to the uncontrolled production of abnormal WBCs, which interferes with the body's ability to fight infection and carry out normal blood functions.

Explanation of each option:

- (a) Purpura-ITP – Primarily affects platelets and causes bleeding due to reduced clotting ability. It is not a white blood cell disorder.
- (b) Leukaemia – Correct. A malignant disease affecting the WBCs, often leading to immune dysfunction, fatigue, and bleeding.
- (c) Haemophilia – A genetic disorder related to clotting factor deficiency, affecting blood coagulation, not WBCs.
- (d) Anaemia – Related to low levels of red blood cells or hemoglobin, resulting in fatigue and pallor. Not related to WBCs.

**S3.** The ICDS scheme was launched on 2nd October 1975 in India. It aims to provide health, nutrition, and education services to children under 6 years of age and to pregnant and lactating mothers through Anganwadi centers.

Explanation of each option:

- (a) 1980 – Although child development programs expanded in the 1980s, ICDS began earlier in 1975.
- (b) 1975 – Correct. This marks the official launch of ICDS, which is one of the world's largest early childhood care programs.
- (c) 1999 – No major ICDS launch or reform happened in this year. This is incorrect.
- (d) 1988 – Some revisions occurred later, but the original launch was well before this year.

**S4.** Providing warmth to the newborn immediately after birth is the first and most important step. It helps prevent hypothermia, which is a common and dangerous condition in newborns due to their high surface area-to-body weight ratio.

Explanation of each option:

- (a) Positioning – While important, positioning is done after the baby is dried and warmed, especially during resuscitation if needed.



- (b) Warmth – Correct. Preventing heat loss is essential for newborn survival. Babies are often dried and placed skin-to-skin or under a radiant warmer.
- (c) Tactile stimulation – Used if the baby is not breathing spontaneously, but not the first routine step after delivery.
- (d) Suctioning – Done only if the airway is obstructed or if the baby is not breathing; it's not performed routinely on all babies.

**S5.** The right and left ventricles are separated by a muscular wall called the interventricular septum. It prevents mixing of oxygenated and deoxygenated blood and plays a role in heart contraction by supporting both ventricles.

Explanation of each option:

- (a) Interatrial septum – This separates the left and right atria, not the ventricles. It contains the fossa ovalis, a remnant from fetal circulation.
- (b) Interventricular septum – Correct. It is a thick muscular wall between the ventricles that maintains proper separation of blood circulation.
- (c) Sinus – Refers to cavities like the coronary sinus or sinus node, which are unrelated to ventricular separation.
- (d) Auricle – Small pouch-like structures attached to the atria; not involved in separating ventricles.

**S6.** The human heart has four chambers: two atria (upper chambers) and two ventricles (lower chambers). This structure supports double circulation — pulmonary and systemic — allowing efficient oxygenation of blood.

Explanation of each option:

- (a) Six-chambered – Incorrect. No mammal, including humans, has six chambers in the heart. This is biologically incorrect.
- (b) Four-chambered – Correct. Humans and other mammals have four heart chambers, ensuring separation of oxygen-rich and oxygen-poor blood.
- (c) Two-chambered – Seen in fish, not in mammals. Their heart consists of one atrium and one ventricle.
- (d) Three-chambered – Found in amphibians and some reptiles, where blood mixing occurs due to the absence of a complete septum.

**S7.** Hand hygiene is considered the most essential and effective method for preventing infections in healthcare settings. It helps stop the transmission of microorganisms from person to person or from contaminated surfaces.

Explanation of each option:

- (a) Ventilation – While proper airflow reduces airborne infections, it is a supportive measure and not a direct personal precaution.
- (b) Hand hygiene – Correct. Regular hand washing or sanitization is the most critical step in infection prevention across all healthcare settings.
- (c) Disinfection – Refers to cleaning instruments or surfaces, not a universal personal technique applicable in all situations.
- (d) Use of masks – Important for preventing respiratory transmission, but hand hygiene remains the core universal technique for all types of infections.



**S8.** Handwashing is the first and foremost step in any wound care procedure. It prevents the transfer of microorganisms from the nurse's hands to the wound, ensuring aseptic technique and reducing infection risk.

Explanation of each option:

- (a) Reassuring or positioning – Important for patient comfort but comes after preparing oneself and maintaining hygiene.
- (b) Removing dirty dressing – This is done during the wound assessment phase, but only after hand hygiene is performed.
- (c) Handwashing – Correct. It is the first universal step in any clinical procedure to ensure a sterile environment and protect both patient and caregiver.
- (d) Observing wound – Assessment comes after initial preparation, not as the first step in the procedure.

**S9.** Asepsis refers to the complete absence of pathogenic microorganisms. It is a fundamental principle in infection control to ensure sterile conditions during medical or surgical procedures.

Explanation of each option:

- (a) The removal of all foreign material – This is cleaning or decontamination, not asepsis itself. It's a part of achieving aseptic conditions.
- (b) The presence of pathogens – Opposite of asepsis. Presence of microbes indicates contamination or infection.
- (c) The act of soiling or contamination – Contamination violates asepsis, making this option incorrect.
- (d) The absence of pathogens – Correct. Asepsis means keeping an area or procedure free from harmful microorganisms to prevent infection.

**S10.** Plasma is the straw-colored fluid component of blood in which blood cells are suspended. It makes up about 55% of total blood volume and contains water, proteins, glucose, clotting factors, and hormones.

Explanation of each option:

- (a) Plasma – Correct. It is the liquid portion of blood, vital for transporting nutrients, hormones, and waste products.
- (b) Platelets – These are blood cells responsible for clotting but are not the fluid part.
- (c) Haemoglobin – A protein found inside red blood cells responsible for oxygen transport, not a fluid.
- (d) White blood cells – Part of the immune system; they are suspended in plasma but are not fluid themselves.

**S11.** Sepsis is a life-threatening condition caused by the body's extreme response to infection. It leads to systemic inflammation and can result in organ failure due to the release of toxins by pathogens and immune system overactivation.

Explanation of each option:

- (a) Transmission from person to person – Describes contagion or communicable diseases, not sepsis.
- (b) Localized immune response – This refers to containment of infection like in an abscess, not systemic sepsis.
- (c) Systemic inflammatory response – Correct. Sepsis occurs when infection spreads and triggers widespread inflammation and tissue damage.
- (d) Entry of microbes – Describes infection initiation, but not the critical systemic condition of sepsis.

**S12.** A nosocomial infection, or hospital-acquired infection (HAI), is one that develops during a patient's stay in a hospital or healthcare facility and was not present at the time of admission. Common examples include surgical site infections and catheter-associated infections.

Explanation of each option:

- (a) Respiratory tract infection – This can be nosocomial but is also common in the community, so it is not specific.
- (b) Pre-existing infection – Incorrect. Nosocomial infections are acquired in the hospital, not brought in.
- (c) Hospital-acquired infection – Correct. These occur after 48 hours of admission and are a major concern in patient safety.
- (d) Urinary tract infection – UTIs may be nosocomial if associated with catheters, but not all UTIs are hospital-acquired.

**S13.** WHO defines health as “a state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity.” This holistic approach addresses overall quality of life, not just disease-free status.

Explanation of each option:

- (a) Physical, mental and social well-being – Correct. This is the complete WHO definition emphasizing holistic wellness.
- (b) Mental and physical well-being only – Incomplete. It ignores the social dimension, which is crucial to health.
- (c) Social well-being only – Too narrow. Health involves more than just social connections or support.
- (d) Physical well-being only – This was the older biomedical view, which is now outdated according to WHO.

**S14.** Typhoid is a waterborne bacterial infection spread through contaminated food or water. It is caused by *Salmonella typhi* and is not transmitted by vectors like mosquitoes or ticks.

Explanation of each option:

- (a) Malaria – Spread by *Anopheles* mosquitoes, making it a classic vector-borne disease.
- (b) Encephalitis – Certain forms, like Japanese encephalitis, are spread by mosquitoes, classifying it as vector-borne.
- (c) Typhoid – Correct. It spreads via the fecal-oral route, not through any insect vector.
- (d) Yellow fever – Caused by a virus and transmitted by *Aedes* mosquitoes, making it vector-borne.

**S15.** Carbohydrates and fats are the primary energy sources in our diet. Carbohydrates provide quick energy, while fats provide a concentrated energy reserve and are important for long-term energy needs.

Explanation of each option:

- (a) Proteins – Used primarily for growth and repair of tissues. They provide energy only when carbs and fats are insufficient.
- (b) Minerals – Inorganic substances that support bodily functions but do not provide energy.
- (c) Carbohydrates and fats – Correct. These are the major macronutrients that supply calories/energy.
- (d) Vitamins – Support metabolic processes but do not contribute energy directly.

**S16.** Asbestosis is a chronic lung disease caused by prolonged inhalation of asbestos fibers. It leads to scarring of lung tissue and breathing difficulty, and is common among workers in asbestos-related industries.

Explanation of each option:

- (a) Asbestosis – Correct. Long-term exposure to asbestos dust leads to this condition, which may progress to lung cancer or mesothelioma.
- (b) Asbestosis silica – Incorrect combination; no such disease classification exists.
- (c) Silicosis – Caused by inhalation of silica dust, not asbestos. It is seen in stone-cutting or sandblasting industries.
- (d) Silica asbestosis – Again, not a valid medical term. It confuses two distinct occupational diseases.

**S17.** Vehicle-borne transmission occurs when pathogens are transmitted via a non-living medium like food, water, utensils, or fomites. It is a type of indirect transmission responsible for diseases like cholera and typhoid.

Explanation of each option:

- (a) Vehicle-borne transmission – Correct. It involves disease transmission through contaminated inanimate objects or substances.
- (b) Vector-borne transmission – Involves insects like mosquitoes or ticks; not applicable to food or water transmission.
- (c) Direct physical contact transmission – Involves skin-to-skin contact or bodily fluids; not related to inanimate carriers.
- (d) Airborne transmission – Involves inhalation of pathogens in aerosols or droplets, not transmission through food or water.

**S18.** Milk is considered a complete food for young children as it contains proteins, fats, carbohydrates, vitamins, and minerals essential for growth and development. It also provides calcium and vitamin D, crucial for bone health.

Explanation of each option:

- (a) Milk – Correct. It provides all major nutrients required for a growing child, especially in early childhood.
- (b) Fruits – Rich in vitamins and fiber, but lack protein and fats, so not a complete food.
- (c) Eggs and meat – High in protein but not suitable as a sole diet for infants. They may lack carbohydrates and calcium.
- (d) Pulses – Rich in protein and fiber but not complete alone; they lack some essential amino acids and fats.

**S19.** The Swachh Bharat Mission, launched in 2014, aimed to eliminate open defecation in India by promoting toilet construction and behavior change. It was a key step toward making India an Open Defecation Free (ODF) nation.

Explanation of each option:

- (a) Swachh Bharat Mission – Correct. It focused on sanitation, toilet access, and eliminating open defecation by 2019.

- (b) Bharat ki Swachhata Bharat ki Sundarta Yojana – Not an actual government scheme; this is a distractor with a similar-sounding name.
- (c) Safe Disposal of Human Excreta Mission – Descriptive, but not a real government initiative under this name.
- (d) Open Defecation Free Mission – Not the official name; it refers to an objective, not a scheme.

**S20.** The Jal Jeevan Mission, launched in 2019, aims to provide Functional Household Tap Connections (FHTC) to every rural household in India. It ensures adequate and safe drinking water supply through regular tap water access.

Explanation of each option:

- (a) Jal Jeevan Mission – Correct. This centrally sponsored scheme ensures piped water supply to rural households as part of improving sanitation and health.
- (b) Swachh Gramin Peyjal Yojana – No such official scheme exists under this name; it is a distractor combining sanitation and drinking water terms.
- (c) Jal Jeevan Hariyali Mission – Not related to FHTC; the name resembles green/environmental initiatives, not rural water supply.
- (d) Swachh Jal Khushi Ke Do Pal – Not a recognized government scheme; appears to be a fabricated or thematic phrase, not an official program.

**S21.** RBSK stands for Rashtriya Bal Swasthya Karyakram and covers Defects at birth, Deficiencies, Diseases, and Developmental delays. “Defects after birth” is not included in its objectives.

Explanation of each option:

- (a) Defects after birth – Correct answer. RBSK includes “defects at birth”, not those that occur later.
- (b) Developmental delays – Covered under RBSK to detect issues in child growth and development early.
- (c) Diseases in childhood – RBSK focuses on common childhood diseases for timely intervention.
- (d) Deficiency conditions – Nutritional deficiencies like anemia, goiter are targeted in RBSK.

**S22.** Prevalence measures the total disease burden and is calculated as: Incidence  $\times$  Average Duration of the disease.

Explanation of each option:

- (a) Incidence  $\div$  Duration – Incorrect, this formula does not represent prevalence accurately.
- (b) Incidence + Duration – Incorrect, as addition is not a method of epidemiological calculation.
- (c) Incidence  $\times$  Duration – Correct answer. This is the valid epidemiological formula for prevalence.
- (d) Duration  $\div$  Incidence – Reverses the correct formula and gives misleading results.

**S23.** Thrombocytopenia is defined as a platelet count below the normal level, increasing bleeding risk.

Explanation of each option:

- (a) Low platelet count – Correct answer. Thrombo = clot, cytopenia = low cell count (platelets).
- (b) High platelet count – Known as thrombocytosis, not thrombocytopenia.
- (c) Thrombosis – Formation of blood clots inside blood vessels, unrelated to platelet count.
- (d) Hypercoagulopathy – A condition of increased blood clotting, not low platelets.

**S24.** A Snellen chart is a visual tool to assess the sharpness or clarity of vision at specific distances.

Explanation of each option:

- (a) Diagnose jaundice – Jaundice diagnosis is based on clinical signs and liver function tests, not charts.
- (b) Assess visual acuity – Correct answer. It measures ability to read letters at a set distance.
- (c) Color blindness – Assessed by Ishihara plates, not Snellen chart.
- (d) Diagnose cataract – Cataract diagnosis involves slit-lamp exam, not Snellen chart.

**S25.** Moro reflex is a primitive reflex where newborns show limb extension when startled or jerked.

Explanation of each option:

- (a) Moro reflex – Correct answer. Indicates healthy neurological development in newborns.
- (b) Babinski reflex – Stroking sole causes toe fanning; not related to sudden movement.
- (c) Gag reflex – Protective reflex of the throat, triggered by stimuli in the pharynx.
- (d) Grasp reflex – Occurs when the baby's palm is touched, causing it to close fingers.

**S26.** Macewen's sign is a resonant "cracked pot" sound heard in hydrocephalus due to separated sutures.

Explanation of each option:

- (a) Hydrocephalus – Correct answer. Caused by excess CSF leading to skull suture separation.
- (b) Spina bifida – A neural tube defect, not associated with cranial percussion signs.
- (c) Meningitis – Involves inflammation of meninges; doesn't produce Macewen sign.
- (d) Pyloric stenosis – Gastrointestinal disorder unrelated to cranial examination.

**S27.** Portal hypertension is most commonly caused by liver cirrhosis due to obstruction of hepatic blood flow.

Explanation of each option:

- (a) Diabetes Mellitus – Causes metabolic issues, not increased portal pressure.
- (b) Liver cirrhosis – Correct answer. Fibrosis disrupts blood flow in liver, raising portal vein pressure.
- (c) Cholecystitis – Gallbladder inflammation; unrelated to portal circulation.
- (d) Nephritis – Affects kidneys; doesn't lead to portal vein hypertension.

**S28.** Antenatal care refers to regular medical supervision given to expectant mothers during pregnancy.

Explanation of each option:

- (a) Post-operative care – Care after surgery; not related to pregnancy monitoring.
- (b) Postnatal care – Provided after childbirth, not during pregnancy.
- (c) Antenatal care – Correct answer. Ensures fetal and maternal health before delivery.
- (d) Specialised health care – A general term, not specific to pregnancy monitoring.

**S29.** Hemopoiesis refers to the formation of all types of blood cells including RBCs, WBCs, and platelets.

Explanation of each option:

- (a) Synthesis of RBC – Correct. Hemopoiesis involves the production of all types of blood cells, including red blood cells (RBCs). It is a key part of the process by which blood cells are generated in the bone marrow.

(b) Destruction of RBC – Incorrect. The destruction of RBCs is called hemolysis, not hemopoiesis. Hemopoiesis refers specifically to the formation, not destruction, of blood cells.

(c) Synthesis of proteins – Incorrect. The synthesis of proteins occurs in the ribosomes and is part of cellular processes like protein translation, but it is not directly related to hemopoiesis, which deals with blood cell formation.

(d) Synthesis of DNA – Incorrect. The synthesis of DNA involves DNA replication, which is a part of cell division and not directly involved in blood cell production. While DNA replication is required for the division of cells, it is not the main function of hemopoiesis.

**S30.** In PCOD, LH is elevated and FSH is low or normal; both being raised is not typical.

Explanation of each option:

(a) ↑ LH & ↑ FSH – Incorrect. This hormonal pattern is not typical in PCOD (Polycystic Ovary Disease). In PCOD, LH (Luteinizing Hormone) is usually elevated, but FSH (Follicle Stimulating Hormone) is either low or normal. Both being raised would indicate a different hormonal imbalance.

(b) ↑ LH & ↓ FSH – Correct. This is the classic hormonal imbalance seen in PCOD. Elevated LH with low or normal FSH disrupts normal ovulation and follicular development, contributing to anovulation and other symptoms.

(c) Amenorrhoea – Incorrect. Amenorrhoea (absence of menstruation) is a common symptom in PCOD, but it is a result of hormonal imbalances, not directly related to the raised LH/FSH levels.

(d) Hirsutism – Incorrect. Hirsutism (excessive hair growth) is caused by elevated androgens (male hormones) in PCOD, and it is a common symptom, but it's not related to the specific hormonal imbalance of LH and FSH.

**S31.** ASHAs are community link workers; they assist with antenatal care but are not trained to conduct deliveries.

Explanation of each option:

(a) Nutrition & immunization – ASHAs promote these through awareness and mobilization.

(b) Antenatal checkups – They escort pregnant women to facilities for care.

(c) Conducting delivery – Correct answer. ASHAs are not trained birth attendants.

(d) Pregnancy test kits – They use kits to detect early pregnancy at home.

**S32.** Water hardness is mainly due to the presence of calcium and magnesium salts such as carbonates and sulfates.

Explanation of each option:

(a) Chlorine – Incorrect. Chlorine is commonly used to disinfect water and kill harmful microorganisms, but it does not contribute to water hardness. It is unrelated to the minerals that cause hardness.

(b) Boron – Incorrect. Boron is not typically associated with water hardness. It is found in trace amounts in water but does not play a significant role in determining water hardness.

(c) Magnesium – Correct. Magnesium is one of the primary minerals that contribute to water hardness. It forms insoluble salts like magnesium carbonate and sulfate, which contribute to the "hardness" of water.

(d) Potassium – Incorrect. Potassium is generally present in soft water and does not contribute to water hardness. Unlike calcium and magnesium, potassium does not form the insoluble salts responsible for hardness.



**S33.** Vitamin E is known as the anti-sterility vitamin because of its role in reproductive health and antioxidant function.

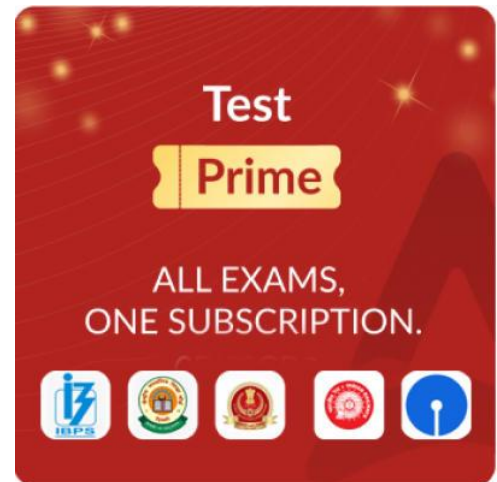
Explanation of each option:

(a) Vitamin D – Incorrect. Vitamin D plays a crucial role in calcium absorption and bone health, but it is not directly linked with sterility or reproductive health.

(b) Vitamin K – Incorrect. Vitamin K is essential for blood clotting and does not have any significant connection with sterility or fertility.

(c) Vitamin E – Correct. Vitamin E is known as the anti-sterility vitamin because it helps in reproductive health, preventing reproductive failure, particularly in experimental animals. It also functions as an antioxidant, protecting cells from oxidative stress.

(d) Vitamin A – Incorrect. Vitamin A is essential for maintaining vision and the health of epithelial tissues. While it is important for overall health, it is not directly associated with fertility or sterility.



**S34.** Clostridium botulinum causes botulism, a severe food poisoning linked to improperly canned or preserved food.

Explanation of each option:

(a) Clostridium botulinum – Correct answer. Produces potent neurotoxin in anaerobic food containers.

(b) Vibrio cholerae – Causes cholera, usually through contaminated water, not canned food.

(c) Staphylococcus aureus – Found in dairy/meats; causes food poisoning but not via canned food.

(d) Taenia solium – A tapeworm from pork, not related to canned food poisoning.

**S35.** Ventricular septal defect (VSD) is the most common congenital heart defect where a hole exists in the septum between ventricles.

Explanation of each option:

(a) Patent Ductus Arteriosus – Seen in preterm infants but not the most common.

(b) Atrial Septal Defect – Common, but less frequent than VSD.

(c) Tricuspid atresia – A rare, complex heart defect requiring surgery.

(d) Ventricular Septal Defect – Correct answer. Accounts for the highest percentage of CHDs.

**S36.** Colostomy involves creating an artificial opening in the abdominal wall to divert stool from the colon.

Explanation of each option:

(a) Cleaning of colon – Called colon cleansing or bowel prep, not colostomy.

(b) Complete removal of colon – Termed colectomy, not colostomy.

(c) Opening of colon through abdomen – Correct answer. Allows passage of stool externally.

(d) Artificial opening in stomach – Called gastrostomy, not colostomy.

**S37.** The Employees' State Insurance (ESI) Act provides social security to employees earning up to ₹21,000 per month. It covers medical, disability, maternity, and dependent benefits. The wage ceiling was last revised to ₹21,000 w.e.f. January 1, 2017. Employees earning beyond this are not eligible for ESI benefits.

Explanation of each option:

- (a) Rs. 19,000 – This was an older threshold before the 2017 revision. It no longer applies under the current notification.
- (b) Rs. 20,000 – Close, but not accurate. Though it may be considered during proposals, it's not the legal ceiling.
- (c) Rs. 21,000 – Correct. It is the official and current upper limit for ESI coverage for salaried employees.
- (d) Rs. 22,000 – Exceeds the allowed limit under ESI Act; employees earning this are ineligible for ESI.

**S38.** Providing calcium and vitamin D to prevent bone loss is a classic example of primary prevention.

Explanation of each option:

- (a) Primary Prevention – Correct answer. It prevents the onset of osteoporosis.
- (b) Secondary Prevention – Focuses on early detection, not supplementation.
- (c) Tertiary Prevention – Aims to reduce complications after disease onset.
- (d) Primordial Prevention – Prevents risk factor emergence, usually at a policy level.

**S39.** The low stationary stage marks demographic maturity with both low birth and death rates, stabilizing population growth.

Explanation of each option:

- (a) High Stationary – Both birth and death rates are high, population growth is slow.
- (b) Early Expanding – Death rate declines but birth rate remains high, population rises.
- (c) Low Stationary – Correct answer. Low fertility and mortality result in stable population.
- (d) Late Expanding – Birth rate starts to decline, but population still grows.

**S40.** Only trained MPWs and ANMs are authorized to insert IUDs at the sub-centre level, not ASHAs.

Explanation of each option:

- (a) MPW – Correct. MPWs (Multi-Purpose Workers) are specifically trained to perform minor medical procedures, including the insertion of IUDs (Intrauterine Devices) at the sub-centre level.
- (b) ASHA – Incorrect. ASHAs (Accredited Social Health Activists) are community health workers who focus on outreach and health education. They are not authorized or trained to insert IUDs.
- (c) Both – Incorrect. This option is wrong because while MPWs are trained for this procedure, ASHAs are not authorized to perform IUD insertions.
- (d) None – Incorrect. This is wrong because MPWs and ANMs are indeed authorized to insert IUDs, and saying "None" would incorrectly imply that no one is authorized.

**S41.** Mifepristone is not used in the management of postpartum hemorrhage (PPH). It is a progesterone antagonist mainly used for medical abortion and labor induction. Mifepristone does not directly stimulate uterine contractions, making it ineffective for controlling PPH.

Explanation of each option:

- (a) Oxytocin – Primary drug for PPH management. It stimulates uterine contractions, helping to stop bleeding. The World Health Organization (WHO) recommends it as the first-line treatment for PPH.
- (b) Methergin (Methylergometrine) – Effective for PPH control. It causes rapid and strong uterine contractions, but it should be used cautiously in hypertensive women.
- (c) Mifepristone – Incorrect option. This drug does not induce immediate uterine contractions and is not used for PPH management.
- (d) Misoprostol – Alternative treatment for PPH. It induces uterine contractions and is used when Oxytocin is unavailable.



**S42.** The Expected Date of Delivery (EDD) is calculated using Naegele's Rule, which is a standard formula used in obstetrics. According to this rule:

EDD = First day of the Last Menstrual Period (LMP) + 9 months + 7 days

This calculation is based on the assumption of a regular 28-day menstrual cycle, where ovulation and fertilization occur around day 14 of the cycle. The total pregnancy duration is approximately 40 weeks (280 days) from the first day of the LMP, making 9 months and 7 days the correct addition.

Explanation of each option:

- (a) 9 months – This calculation is incomplete because it does not consider the additional 7 days that are required to reach the standard 280-day gestational period. If only 9 months are added, the estimated due date would be earlier than expected, which can lead to an incorrect gestational age assessment.
- (b) 9 months 2 days – Although closer to the correct answer, this still falls 5 days short of the expected gestation period. In obstetrics, accuracy in calculating the EDD is important for monitoring fetal growth and scheduling prenatal care, and missing even a few days can lead to incorrect timing for necessary medical interventions.
- (c) 9 months 7 days – Correct answer. This is the standard formula based on Naegele's Rule, which is widely used in clinical practice. Adding 9 months and 7 days accounts for the full 280-day pregnancy duration, ensuring an accurate estimated due date. This method is especially important for planning antenatal visits, ultrasounds, and labor preparation.
- (d) 9 months 14 days – This overestimates the pregnancy duration, leading to an EDD that is one week late. If a pregnancy extends beyond 40 weeks, it may be classified as post-term, requiring additional medical monitoring for fetal well-being. Overestimating the due date could delay necessary medical interventions, increasing risks for both the mother and baby.

**S43.** The normal respiratory rate in a pregnant woman is 18-24 breaths per minute. Pregnancy induces physiological changes in the respiratory system, including increased tidal volume and oxygen demand due to fetal requirements. Progesterone levels rise, stimulating the respiratory center in the brain, leading to mild hyperventilation, which helps maintain adequate oxygen supply to both the mother and fetus.

Explanation of each option:

- (a) 12-16 per minute – This is the normal respiratory rate for non-pregnant adults. However, during pregnancy, progesterone increases ventilation, making this range too low for most pregnant women.
- (b) 18-20 per minute – Although this range is within the expected values, it is slightly narrower than the commonly accepted range for pregnant women. Most sources define the normal respiratory rate in pregnancy as 18-24 breaths per minute.
- (c) 18-24 per minute – Correct answer. Due to increased metabolic demand, oxygen consumption, and progesterone-induced respiratory changes, pregnant women have a slightly elevated respiratory rate, typically between 18-24 breaths per minute.
- (d) 20-24 per minute – While this range is within the upper limit of normal, it excludes lower normal values (18-19 breaths per minute) seen in many pregnant women. The broader range 18-24 breaths per minute is more accurate.

**S44.** Fetal heart sounds can be heard using a Fetoscope by approximately 20 weeks of gestation. A Fetoscope (Pinard's stethoscope) is a specialized instrument used to auscultate fetal heart sounds manually. The fetal heartbeat can typically be detected earlier (around 10-12 weeks) using a Doppler device, but with a Fetoscope, it is usually heard between 18-20 weeks of pregnancy when fetal heart activity is strong enough to be transmitted through the maternal abdomen.

Explanation of each option:

- (a) 12 weeks – At 12 weeks, the fetal heartbeat can be detected using a Doppler ultrasound, but it is too early for a Fetoscope, which requires more developed fetal heart sounds.
- (b) 20 weeks – Correct answer. By 20 weeks of pregnancy, the fetal heart sounds are strong enough to be heard using a Fetoscope placed on the mother's abdomen. This is a reliable method for auscultation in low-resource settings where Doppler devices may not be available.
- (c) 24 weeks – While fetal heart sounds are clearly audible at 24 weeks, they can usually be heard earlier (around 20 weeks) using a Fetoscope. This makes 24 weeks a slightly delayed estimate.
- (d) 32 weeks – By 32 weeks, fetal heart sounds are very loud and easily detectable, but waiting this long for auscultation using a Fetoscope is unnecessary as fetal heart sounds are normally heard by 20 weeks.

**S45.** A pregnant woman is considered anemic when her hemoglobin (Hb) level falls below 11 g/dL, according to the World Health Organization (WHO). During pregnancy, blood volume increases significantly, leading to physiological dilution of hemoglobin (hemodilution). This makes the cutoff for anemia in pregnant women lower than in non-pregnant women. Maternal anemia increases the risk of preterm birth, low birth weight, and maternal complications.

Explanation of each option:

- (a) 13 g% – A hemoglobin level of 13 g/dL is considered normal for non-pregnant women and higher than expected for most pregnant women due to hemodilution during pregnancy. This is not the threshold for anemia.
- (b) 12 g% – While 12 g/dL is the lower limit for non-pregnant women, it is not used as a diagnostic threshold for anemia in pregnancy. Due to increased plasma volume, the anemia threshold in pregnancy is lower.
- (c) 11 g% – Correct answer. According to WHO and ACOG (American College of Obstetricians and Gynecologists), a pregnant woman is considered anemic if her hemoglobin level falls below 11 g/dL. Mild anemia is defined as Hb 10-10.9 g/dL, moderate as Hb 7-9.9 g/dL, and severe as Hb below 7 g/dL.
- (d) 10 g% – While Hb below 10 g/dL indicates moderate anemia, the official threshold for anemia begins at 11 g/dL. Pregnant women with Hb below 10 g/dL require medical intervention, including iron and folic acid supplementation.

**S46.** IUCD (Intrauterine Contraceptive Device) is a long-acting, reversible contraceptive method placed inside the uterus to prevent pregnancy. It is a highly effective birth control method, working primarily by preventing sperm from fertilizing the egg and altering the uterine lining to inhibit implantation. Common IUCDs include copper-based devices (Copper-T) and hormonal devices (Mirena, LNG-IUS).

Explanation of each option:

- (a) Intrauterine control device – This is an incorrect term. IUCDs do not control the uterus but prevent pregnancy by acting as a contraceptive.
- (b) Intrauterine copper device – Although copper IUCDs (such as Copper-T 380A) exist, IUCDs also include hormonal devices, making this definition incomplete.
- (c) Intrauterine contraceptive device – Correct answer. IUCD is a contraceptive device inserted into the uterus for birth control.
- (d) Intrauterine continuous device – Incorrect, as IUCDs do not provide continuous medication release (except for hormonal IUCDs).

**S47.** The normal fetal heart rate (FHR) ranges between 120-160 beats per minute (bpm). The fetal heart starts beating around 5-6 weeks of gestation, and the heart rate varies throughout pregnancy. A FHR below 110 bpm is considered fetal bradycardia, while FHR above 160 bpm is termed fetal tachycardia, both of which may indicate fetal distress.

Explanation of each option:

- (a) 60-80 per minute – Too low for a fetus; this heart rate is typical for an adult, not a fetus. Such a low fetal heart rate may indicate severe fetal distress or intrauterine demise.
- (b) 100-120 per minute – This is slightly below normal and may suggest early bradycardia, which requires monitoring.
- (c) 120-160 per minute – Correct answer. This is the normal FHR range observed via Doppler ultrasound or fetal monitoring.
- (d) 160-180 per minute – A FHR above 160 bpm is fetal tachycardia, which may indicate maternal fever, fetal hypoxia, or infections, and requires evaluation.

**S48.** During every antenatal check-up, routine screening tests are performed to monitor maternal and fetal health. The essential tests include Hemoglobin (Hb), Urine sugar, and Urine Albumin to detect anemia, gestational diabetes, and kidney function abnormalities.

Explanation of each option:

- (a) Hemoglobin, Urine sugar, HCG – Incorrect. While hemoglobin and urine sugar are essential tests, human chorionic gonadotropin (HCG) is primarily used for pregnancy confirmation, not routine antenatal check-ups.
- (b) Hemoglobin, Urine sugar, Urine Albumin – Correct answer.
  - o Hemoglobin (Hb): Detects maternal anemia, which is common in pregnancy.
  - o Urine Sugar: Helps screen for gestational diabetes mellitus (GDM).
  - o Urine Albumin (Proteinuria): Detects preeclampsia and kidney disorders.
- (c) Hemoglobin, Blood sugar, Urine sugar – Partially correct.
  - o Blood sugar testing is done selectively (not in every antenatal check-up), mainly for women at risk of gestational diabetes. Routine urine sugar tests are preferred.
- (d) Hemoglobin, Urine sugar, HPL – Incorrect.
  - o Human placental lactogen (HPL) is a placental hormone involved in fetal growth and maternal glucose metabolism but is not used as a routine antenatal test.

**S49.** According to World Health Organization (WHO) and National Immunization Guidelines, a pregnant woman who has received the first TT dose (TT1) at 4 months of pregnancy should receive the second dose (TT2) at least 4 weeks after TT1, preferably before the third trimester ends. Since the woman is now in her eighth month, she should be given TT2 to ensure protection against maternal and neonatal tetanus.

Explanation of each option:

- (a) TT vaccine will not be given. – Incorrect. The second dose (TT2) is essential to ensure full protection against neonatal tetanus. Without it, the immunity from TT1 may not be sufficient.
- (b) The second dose of the TT vaccine will be given. – Correct answer. TT2 should be administered at least 4 weeks after TT1 and before delivery to provide full maternal and neonatal protection.
- (c) Instead of 0.5 ml, a 1.0 ml dose of the TT vaccine will be given. – Incorrect. The recommended dose of TT is always 0.5 ml. Increasing the dose does not enhance immunity and is not recommended.
- (d) The TT vaccine will be given today, and the woman will be asked to return after 15 days for another TT dose. – Incorrect. TT2 is given at least 4 weeks after TT1, but an additional dose after 15 days is unnecessary. The next recommended booster would be TT Booster (TTB) in the next pregnancy.

**S50.** Sodium Hypochlorite ( $\text{NaOCl}$ ) is used in automated hemoglobin measurement methods such as the cyanmethemoglobin method. In this technique,  $\text{NaOCl}$  acts as an oxidizing agent, converting hemoglobin into methemoglobin, which then reacts with potassium cyanide to form a stable cyanmethemoglobin complex. This complex is measured spectrophotometrically to determine the hemoglobin concentration in blood. The cyanmethemoglobin method is the gold standard for hemoglobin estimation due to its accuracy and reproducibility.

Explanation of each option:

- (a)  $\text{NaCl}$  (Sodium Chloride) – Used in saline solutions and intravenous fluids, but it does not play a role in hemoglobin measurement.
- (b)  $\text{N}/10 \text{ HCl}$  (Normal/10 Hydrochloric Acid) – Commonly used in Sahli's method, an older manual method for hemoglobin estimation. However, it is not as accurate as the cyanmethemoglobin method, which uses  $\text{NaOCl}$ .
- (c)  $\text{NaOCl}$  (Sodium Hypochlorite) – Correct answer. Used in the cyanmethemoglobin method, which is the most widely accepted automated hemoglobin measurement technique recommended by WHO.
- (d)  $\text{NaOH}$  (Sodium Hydroxide) – A strong base used in chemical reactions but has no role in hemoglobin estimation.

**S51. Ans.(d)**

**Sol.** Counseling for sexual health issues is typically available at all levels of health service provision, including district hospitals, primary health centers, and community health centers, depending on the resources available.

Explanation of each option:

- (a) District hospital – District hospitals often provide specialized health services, including counseling for sexual health issues.
- (b) Primary health centre – Primary health centers also offer sexual health services, especially in rural areas.
- (c) Community health centre – Community health centers provide a more localized and accessible option for sexual health counseling.
- (d) All of the above – Correct answer. Sexual health counseling can be provided at any of these service levels, making this the most comprehensive option.

**S52. Ans.(c)**

**Sol.** BMI stands for Body Mass Index, which is a measure used to assess whether a person has a healthy body weight for a given height.

Explanation of each option:

- (a) Body Metabolic Index – This is incorrect. BMI does not refer to metabolic rate but to body weight relative to height.
- (b) Basic Metabolic Index – This is also incorrect. BMI does not deal with metabolic rates, which are measured by BMR (Basal Metabolic Rate).
- (c) Body Mass Index – Correct answer. BMI is calculated by dividing a person's weight in kilograms by their height in meters squared.
- (d) Basic Mass Index – This is incorrect. The correct term is Body Mass Index.

**S53. Ans.(b)**

**Sol.** A BMI of more than  $25.0 \text{ kg/m}^2$  is considered overweight according to the World Health Organization (WHO) classification.

Explanation of each option:

- (a) Less than  $18.5 \text{ kg/m}^2$  – This is considered underweight, not overweight.
- (b) More than  $25.0 \text{ kg/m}^2$  – Correct answer. A BMI above  $25.0 \text{ kg/m}^2$  is classified as overweight.
- (c) Less than  $25.0 \text{ kg/m}^2$  – This is not overweight; a BMI less than 25 is generally considered normal weight.
- (d) More than  $18.5 \text{ kg/m}^2$  – This is too vague and does not define overweight. Overweight specifically refers to BMI greater than 25.

**S54. Ans.(c)**

**Sol.** ICTC stands for Integrated Counseling and Testing Centre for HIV/AIDS, which provides counseling and testing services for HIV.

Explanation of each option:

- (a) Integrated Centre for Testing of Chronic diseases – This is not the correct definition of ICTC. It focuses on HIV/AIDS, not chronic diseases in general.
- (b) Integrated Counseling and Training Centre – This is incorrect. ICTC focuses on HIV/AIDS counseling and testing, not general training.
- (c) Integrated Counseling and Testing Centre for HIV/AIDS – Correct answer. ICTC provides both counseling and testing services, especially for HIV/AIDS.
- (d) Integrated Child Training Centre – This is unrelated to ICTC, which focuses on HIV/AIDS testing and counseling.

**S55. Ans.(c)**

**Sol.** Adolescence is a transitional phase between childhood and adulthood, during which significant physical, emotional, and psychological changes occur.

Explanation of each option:

- (a) Teenage and Adulthood – Adolescence is often considered to span both the teenage years and the onset of adulthood.
- (b) Childhood and teenage – This is incorrect; adolescence spans from childhood to adulthood, not just childhood to teenage.
- (c) Childhood and adulthood – Correct answer. Adolescence represents the transition from childhood to adulthood.
- (d) Childhood and old age – This is incorrect as adolescence refers to the phase between childhood and adulthood, not old age.

**S56. Ans.(a)**

**Sol.** Pain in the abdomen is a known side effect of oral contraceptive pills. Some women may experience abdominal discomfort due to hormonal changes caused by the pills.

Explanation of each option:

- (a) Pain in abdomen – Correct answer. Abdominal pain can occur as a side effect of oral contraceptive pills, especially in the first few months of use.



(b) Increased appetite – This is not a typical side effect of oral contraceptive pills. While appetite changes are possible, it is not a common or widely reported side effect.

(c) Loose motions – Loose motions or diarrhea are not a common side effect of oral contraceptive pills.

(d) Intermittent spotting – Spotting between periods is a common side effect, but pain in the abdomen is a more specific and prominent side effect in some users.

**S57. Ans.(a)**

**Sol.** Coitus interruptus (withdrawal method) has the highest failure rate among all contraception methods. This method relies on the male partner withdrawing before ejaculation, which is difficult to control and often results in unintended pregnancies.

Explanation of each option:

(a) Coitus interruptus – Correct answer. Coitus interruptus, or the withdrawal method, has a high failure rate because it depends on the male's ability to withdraw before ejaculation and can be unreliable.

(b) Condoms – Condoms are relatively effective, but not as much as sterilization methods. Their failure rate is higher than oral contraceptives but lower than coitus interruptus.

(c) Oral contraceptive pills – Oral contraceptive pills have a lower failure rate compared to coitus interruptus when used properly.

(d) Tubal ligation – Tubal ligation (female sterilization) has one of the lowest failure rates among contraceptive methods.

**S58. Ans.(c)**

**Sol.** Chhaya is a brand name of a female condom. It is marketed in India and provides women with an option for barrier contraception.

Explanation of each option:

(a) A contraceptive pill – This is incorrect. "Chhaya" is not a contraceptive pill.

(b) An injectable contraceptive – This is incorrect. "Chhaya" is not an injectable contraceptive.

(c) Brand name of a female condom – Correct answer. Chhaya is a brand name for a female condom used as a barrier method of contraception.

(d) None of the above – This is incorrect because "Chhaya" refers to a female condom, as indicated in option (c).

**S59. Ans.(d)**

**Sol.** Healthy birth spacing can be achieved through various methods including the rhythm method, barrier methods, and hormonal methods. Each method helps in ensuring there is an appropriate gap between pregnancies.

Explanation of each option:

(a) Rhythm Method – The rhythm method involves tracking a woman's menstrual cycle to avoid pregnancy during fertile periods.

(b) Barrier Method – Barrier methods such as condoms prevent sperm from reaching the egg, thereby spacing pregnancies.

(c) Hormonal Method – Hormonal methods like birth control pills or injections regulate ovulation to prevent pregnancy.

(d) All of the above – Correct answer. All of these methods contribute to healthy birth spacing.

**S60. Ans.(b)**

**Sol.** Mission Pariwar Vikas focuses on improving family planning services by promoting contraceptives and educating communities about family planning.

Explanation of each option:

- (a) New name for Family Planning program – While it focuses on family planning, it is not simply a new name for the program, but a more comprehensive initiative.
- (b) Relates to Contraceptives and family planning services – Correct answer. The mission primarily deals with providing contraceptive options and promoting family planning services.
- (c) Giving all health services under Ayushman Bharat – This is a broader health initiative that involves providing health insurance and services, not the focus of Mission Pariwar Vikas.
- (d) Family Health Insurance Scheme – This is unrelated to Mission Pariwar Vikas, which is primarily about family planning.

**S61.** Conjunctivitis (commonly known as pink eye) is an eye infection that causes redness, swelling, and irritation but does not lead to permanent blindness. It is usually caused by bacteria, viruses, or allergens, and it is treatable with medications or natural recovery.

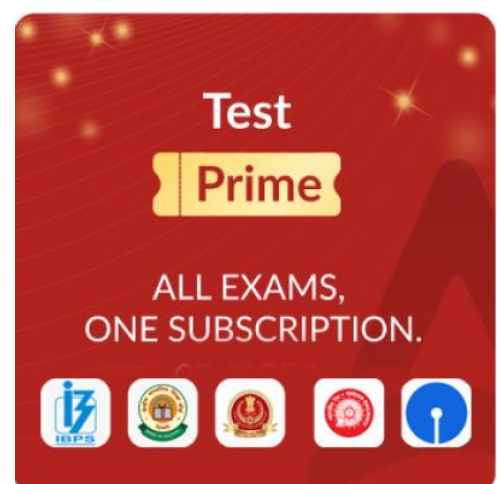
Explanation of each option:

- (a) Refractive errors – Incorrect. Severe uncorrected refractive errors (such as myopia, hyperopia, and astigmatism) can lead to significant visual impairment or even blindness if not managed properly with corrective lenses or surgery.
- (b) Cataract – Incorrect. A cataract is a clouding of the eye's lens that leads to progressive vision loss and, if left untreated, can result in blindness. Cataract surgery is a common treatment to restore vision.
- (c) Conjunctivitis – Correct answer. Conjunctivitis causes temporary discomfort but does not cause permanent blindness. It is typically resolved with appropriate medical treatment.
- (d) Age-related macular degeneration (AMD) – Incorrect. AMD is a progressive eye disease that affects central vision and is one of the leading causes of blindness in older adults. It occurs due to damage to the macula, the central part of the retina.

**S62.** A rear-end collision happens when a vehicle crashes into the back of another vehicle. It is often caused by tailgating, sudden braking, distracted driving, or adverse weather conditions. Rear-end collisions are common in traffic congestion and can result in minor to severe injuries, such as whiplash.

Explanation of each option:

- (a) Rear-end collision – Correct answer. Occurs when a car crashes into the back of another vehicle due to sudden stopping, distracted driving, or slippery road conditions.
- (b) Head-on collision – Incorrect. A head-on collision happens when two vehicles traveling in opposite directions crash into each other from the front. This type of accident is often severe and can result in fatalities.
- (c) Side-swipe collision – Incorrect. A side-swipe collision occurs when two vehicles traveling parallel to each other make contact on their sides, usually due to improper lane changes.
- (d) Side-impact collision – Incorrect. Also known as a T-bone collision, this occurs when the front of one vehicle crashes into the side of another, commonly at intersections.



**S63.** In 2022, India recorded 1,68,491 deaths due to road accidents, as per the Ministry of Road Transport and Highways. This represents a significant public health concern, highlighting the need for improved road safety measures, stricter traffic regulations, and enhanced emergency response systems to reduce fatalities.

Explanation of each option:

- (a) 11,68,491 – Incorrect. This is an unrealistic number as the total road accident fatalities in India have never reached this figure.
- (b) 8,491 – Incorrect. This number is too low compared to the official reports, as road accident deaths in India are significantly higher.
- (c) 68,491 – Incorrect. While this figure represents a high number of casualties, it is far below the actual number recorded in 2022.
- (d) 1,68,491 – Correct answer. This is the official number of deaths reported due to road accidents in India in 2022, emphasizing the severity of road safety challenges.

**S64.** A bone marrow biopsy is the most definitive test for diagnosing blood cancers like leukemia, lymphoma, and multiple myeloma. This procedure involves extracting a sample of bone marrow from the hip bone to examine abnormal blood cells and determine the presence of cancerous growth.

Explanation of each option:

- (a) Bone marrow biopsy – Correct answer. It is used to evaluate blood cell production and detect abnormal cells that may indicate blood cancer.
- (b) Endoscopy – Incorrect. Endoscopy is a diagnostic procedure used to examine the digestive tract, primarily for conditions like ulcers, tumors, and gastrointestinal bleeding, not blood cancer.
- (c) Colposcopy – Incorrect. Colposcopy is a gynecological test used to examine the cervix for precancerous or cancerous lesions, mainly in cervical cancer screening.
- (d) Colonoscopy – Incorrect. Colonoscopy is a procedure used to examine the colon and rectum for abnormalities like polyps, ulcers, or colorectal cancer, not blood-related malignancies.

**S65.** Fluorosis is a dental condition caused by excessive fluoride intake during tooth development, leading to discoloration and mottling of the enamel. The severity ranges from mild white streaks to severe brown stains and pitting of the teeth.

Explanation of each option:

- (a) Narcosis – Incorrect. Narcosis refers to a condition of altered mental state due to exposure to narcotics or deep-sea diving gases, not a dental disorder.
- (b) Sarcoidosis – Incorrect. Sarcoidosis is an inflammatory disease that forms granulomas in organs like the lungs and skin, but it does not cause speckles on teeth.
- (c) Filariasis – Incorrect. Filariasis is a parasitic disease caused by filarial worms, leading to swelling (elephantiasis), but it has no impact on dental health.
- (d) Fluorosis – Correct answer. It occurs due to high fluoride consumption, particularly from drinking water, leading to tooth enamel damage.

**S66.** Fluorosis is a cosmetic dental condition caused by excessive fluoride intake, leading to discoloration, mottling, and staining of the teeth. While it does not typically cause structural damage, it affects the appearance of teeth, making it a cosmetic concern.



Explanation of each option:

- (a) Tooth Decay – Incorrect. Tooth decay, or dental caries, is caused by bacterial activity leading to cavity formation. It is a health concern rather than a cosmetic one.
- (b) Fluorosis – Correct answer. Fluorosis primarily affects the aesthetic appearance of teeth due to excessive fluoride exposure, leading to white or brown stains.
- (c) Tooth Sensitivity – Incorrect. Tooth sensitivity occurs due to enamel erosion or gum recession, causing discomfort when consuming hot or cold foods, but it is not classified as a cosmetic issue.
- (d) Bleeding Gums – Incorrect. Bleeding gums are a sign of gum disease (gingivitis or periodontitis) and are related to oral health rather than cosmetic appearance.

**S67.** Mottled enamel is the characteristic symptom of fluorosis, which occurs due to excessive fluoride exposure during tooth development. It leads to discoloration, white streaks, or brown spots on the enamel.

Explanation of each option:

- (a) Gum bleeding – Incorrect. Gum bleeding is associated with gingivitis or periodontal disease, not fluorosis.
- (b) Glossitis – Incorrect. Glossitis refers to inflammation of the tongue, often due to nutritional deficiencies or infections.
- (c) Cheilosis – Incorrect. Cheilosis is characterized by cracked lips and mouth sores, commonly caused by vitamin B2 (riboflavin) deficiency.
- (d) Mottled enamel – Correct answer. This is the hallmark symptom of fluorosis, resulting from excessive fluoride intake, leading to enamel discoloration and structural changes.

**S68.** The recommended dietary allowance (RDA) for iodine in infants aged 0–6 months is 110 mcg per day. This amount is essential for proper thyroid function and brain development. Breast milk or infant formula generally provides an adequate iodine supply for infants.

Explanation of each option:

- (a) 70 mcg per day – Incorrect. This is below the recommended daily intake for a 2-month-old infant and may lead to iodine deficiency.
- (b) 110 mcg per day – Correct answer. This is the standard RDA for infants aged 0–6 months, ensuring optimal thyroid function and neurodevelopment.
- (c) 190 mcg per day – Incorrect. This exceeds the recommended limit and is more appropriate for pregnant or lactating women.
- (d) 250 mcg per day – Incorrect. This is far above the required intake for infants and could lead to excessive iodine exposure.

**S69.** Attention deficit hyperactivity disorder (ADHD) is characterized by persistent inattention, hyperactivity, and impulsivity that interfere with daily functioning in academic, occupational, and social settings. Symptoms typically begin in childhood and can persist into adulthood. Treatment often includes behavioral therapy, medication, and lifestyle modifications.

Explanation of each option:

- (a) Autism spectrum disorder – Incorrect. While autism may involve attention issues, it is primarily a neurodevelopmental disorder affecting social communication and behavior.
- (b) Attention deficit hyperactivity disorder – Correct answer. ADHD is specifically characterized by attention deficits and hyperactivity-impulsivity that impact functioning.

(c) Schizophrenia – Incorrect. Schizophrenia is a severe mental disorder that affects thought processes, emotions, and perception, often leading to hallucinations and delusions.

(d) Post-traumatic stress disorder – Incorrect. PTSD results from exposure to traumatic events and involves symptoms such as flashbacks, anxiety, and emotional numbness rather than inattention and hyperactivity.

**S70.** Leptin is a hormone produced by adipose (fat) cells that helps regulate appetite and energy balance. In obesity, leptin resistance occurs, meaning the brain does not properly respond to leptin signals, leading to increased hunger and overeating despite sufficient fat stores.

Explanation of each option:

(a) Ghrelin – Incorrect. Ghrelin is the "hunger hormone" that stimulates appetite, but its resistance is not a primary factor in obesity-related overeating.

(b) Cortisol – Incorrect. Cortisol is a stress hormone that can increase appetite and lead to weight gain, but it is not directly linked to leptin resistance.

(c) Leptin – Correct answer. Leptin resistance prevents proper appetite suppression, causing increased food intake and obesity.

(d) Oxytocin – Incorrect. Oxytocin is a hormone involved in social bonding, childbirth, and lactation, with no major role in hunger regulation.

**S71.** The National AIDS Control Program (NACP) Phase-V in India has set a target to reduce new HIV infections and AIDS-related mortality by 80% by 2025-26, relative to the baseline data from 2010, as part of the country's ongoing efforts to combat HIV and AIDS.

Explanation of each option:

(a) 50% – Incorrect. The target for NACP Phase-V is much higher than a 50% reduction. The program aims for an 80% reduction, not 50%.

(b) 60% – Incorrect. The target is set at 80%, so 60% is below the goal.

(c) 80% – Correct. NACP Phase-V's goal is to reduce new infections and AIDS-related deaths by 80% by 2025-26, from the 2010 baseline.

(d) 100% – Incorrect. While the goal is ambitious, a 100% reduction is not the target for NACP Phase-V. The goal is 80%.

**S72.** PPTCT refers to the Prevention of Parent to Child Transmission, which is a crucial aspect of the National AIDS and STD Control Program in India. The program aims to reduce the transmission of HIV from mother to child during pregnancy, labor, and breastfeeding.

Explanation of each option:

(a) Public Partnership for Tuberculosis Control and Treatment – Incorrect. While tuberculosis control is an important health issue, this is not what PPTCT stands for in the context of HIV/AIDS.

(b) Public Partnership for Tuberculosis in Children and Teenagers – Incorrect. PPTCT does not pertain to tuberculosis in children and teenagers.

(c) Prevention of Parent to Child Transmission – Correct. This is the primary focus of PPTCT in the context of the National AIDS and STD Control Program, aiming to prevent HIV transmission from mother to child.

(d) Post-Primary Tuberculosis Control and Treatment – Incorrect. PPTCT is not related to post-primary tuberculosis control or treatment.

**S73.** In August 1992, the National Goitre Control Programme (NGCP) was renamed the National Iodine Deficiency Disorders Control Programme (NIDDCP). This programme aims to eliminate iodine deficiency as a public health problem by ensuring universal iodisation of salt.

Explanation of each option:

- (a) Salt Iodisation Programme in India – Incorrect. While salt iodisation is a critical part of controlling iodine deficiency, the renaming to NIDDCP was specific to the NGCP, not the salt iodisation programme itself.
- (b) National Goitre Control Programme (NGCP) – Correct. The NGCP was renamed to NIDDCP in 1992 to address the broader issue of iodine deficiency, including its association with other disorders like cretinism, deaf-mutism, and developmental delays.
- (c) Nutrient Deficiency Control Programme – Incorrect. This is a general programme that may cover various deficiencies, but it was not renamed to NIDDCP.
- (d) National Tobacco Control Programme – Incorrect. This programme is focused on reducing tobacco-related harm and is not related to iodine deficiency control.

**S74.** Regulation 2.3.12 of the Food Safety and Standards Regulation, 2011, aims to regulate the sale of iodized salt for direct human consumption. It ensures that salt for human consumption is adequately iodized to prevent iodine deficiency disorders, which is a public health goal.

Explanation of each option:

- (a) Regulate the sale of non-iodized salt for direct human consumption – Incorrect. The regulation primarily focuses on ensuring the sale of iodized salt, not non-iodized salt.
- (b) Regulate the sale of iodized salt for direct human consumption – Correct. This regulation ensures that the iodization of salt for human consumption is strictly enforced to reduce iodine deficiency.
- (c) Ensure the availability of adequately iodized salt for human consumption – Incorrect. While this option is close, the regulation specifically focuses on the sale of iodized salt, not the broader aspect of availability.
- (d) Promote the sale of common salt without iodization – Incorrect. This option contradicts the purpose of the regulation, as it emphasizes iodization to prevent iodine deficiency.

**S75.** Cervavac is a vaccine developed entirely within India by the Serum Institute of India. It is designed to prevent cervical cancer caused by certain types of the human papillomavirus (HPV), which is the leading cause of cervical cancer.

Explanation of each option:

- (a) Tetanus vaccine – Incorrect. The Tetanus vaccine is used to prevent tetanus caused by bacterial infection, not cervical cancer.
- (b) Influenza vaccine – Incorrect. The Influenza vaccine protects against the flu, not cervical cancer.
- (c) Hepatitis A vaccine – Incorrect. The Hepatitis A vaccine is used to protect against hepatitis A infection, not cervical cancer.
- (d) Cervavac vaccine – Correct. This is the Indian-developed vaccine specifically targeted at preventing cervical cancer caused by HPV.

**S76.** The World Health Organization (WHO) established the Tobacco Free Initiatives in 1998 to promote a global effort to reduce tobacco use and its related health risks. This initiative was a crucial step towards global tobacco control and was a part of WHO's broader effort to curb non-communicable diseases.

Explanation of each option:

- (a) 1989 – Incorrect. WHO's Tobacco Free Initiatives were established in 1998, not 1989.
- (b) 1998 – Correct. WHO established the Tobacco Free Initiatives in 1998 to address the global tobacco epidemic.
- (c) 2002 – Incorrect. The initiative was set up earlier in 1998, not in 2002.
- (d) 2014 – Incorrect. WHO's Tobacco Free Initiatives were already in place long before 2014.

**S77.** According to the National Health Profile 2021, India has approximately 0.6 beds per thousand population. This is a critical indicator of the healthcare infrastructure, and despite improvements, it is still lower compared to many developed nations, signaling a need for better healthcare facilities.

Explanation of each option:

- (a) 0.6 – Correct. India currently has about 0.6 hospital beds per thousand people according to the 2021 National Health Profile.
- (b) 0.9 – Incorrect. The actual number is lower than this figure, at 0.6 beds per thousand people.
- (c) 1.8 – Incorrect. This number is much higher than the actual statistic provided in the National Health Profile 2021.
- (d) 2.5 – Incorrect. This figure is also too high and does not match the number reported in the National Health Profile.

**S78.** The Pradhan Mantri Swasthya Suraksha Yojana (PMSSY) is funded jointly by the central and state governments. It aims to provide quality health services in underserved areas and promote the development of medical infrastructure.

Explanation of each option:

- (a) Funded by private sector – Incorrect. The PMSSY is not funded by the private sector but by the central and state governments.
- (b) Jointly funded by the central and state government – Correct. The PMSSY is a government initiative where both the central and state governments contribute to funding the scheme.
- (c) Fully funded by the central government – Incorrect. The PMSSY involves collaboration between both the central and state governments for funding.
- (d) International donor agency funded – Incorrect. The PMSSY is not funded by international donor agencies; it is funded domestically by the Indian government.

**S79.** The National Rural Health Mission aims to improve the healthcare infrastructure in rural areas, with one of its key objectives being the reduction of maternal and infant mortality rates. This is done through better access to maternal care, healthcare workers, and health education.

Explanation of each option:

- (a) To reduce MMR and IMR to 100/100000 and 30/1000 live births, respectively – Correct. The National Rural Health Mission prioritizes reducing maternal and infant mortality rates as part of its objectives.
- (b) To achieve hundred per cent coverage under Oral Polio Vaccine – Incorrect. While the NRHM aims for better immunization coverage, reducing maternal and infant mortality is a more direct focus.

(c) To control and reduce the prevalence of diabetes – Incorrect. Although diabetes control is important, it is not a primary objective of the NRHM.

(d) To reduce the production and supply of tobacco products – Incorrect. The NRHM does not directly aim to reduce tobacco production; its focus is on improving maternal and child health.

**S80.** The 12th Five-Year Plan aimed at broadening economic reforms, which included the establishment of the Goods and Services Tax (GST) to streamline the tax structure and the National Skill Development Mission to enhance skill training among the youth.

Explanation of each option:

(a) Poverty reduction by 10% – Incorrect. While poverty reduction is an ongoing goal, the 12th plan did not directly aim for a 10% reduction in poverty.

(b) Establishment of NREGA – Incorrect. The National Rural Employment Guarantee Act (NREGA) was introduced earlier, under the 11th plan (2005-2010).

(c) Establishment of GSTs and launch of National Skill Development Mission – Correct. The 12th Plan was instrumental in setting up the GST and launching the National Skill Development Mission, aimed at creating a skilled workforce.

(d) Establishment of NHAI – Incorrect. The National Highways Authority of India (NHAI) was established much earlier and is not a major achievement of the 12th Plan.

**S81.** Pertussis, or whooping cough, is a communicable bacterial disease caused by *Bordetella pertussis*. It spreads through respiratory droplets and affects infants and young children severely. It is preventable through DPT vaccination under UIP (Universal Immunization Programme). In contrast, diabetes, hypertension, and kwashiorkor are non-communicable or nutritional disorders.

Explanation of each option:

(a) Diabetes – Incorrect. It is a non-communicable metabolic disorder, primarily due to insulin imbalance or resistance, not spread from person to person.

(b) Pertussis – Correct. This is a highly contagious respiratory disease, managed through vaccines and early antibiotic treatment.

(c) Hypertension – Incorrect. It is a chronic non-communicable condition often linked to lifestyle, genetics, and age — not an infectious agent.

(d) Kwashiorkor – Incorrect. It is a protein-energy malnutrition condition, common in children, but not caused by infection or transmissible factors.

**S82.** Sodium hypochlorite (1% solution) is the recommended disinfectant to decontaminate HIV-contaminated articles or surfaces, as per WHO and CDC guidelines. It is fast-acting, cost-effective, and commonly used in hospitals for cleaning blood spills, syringes, and equipment. Other agents like glutaraldehyde are also effective but used in specific sterilization protocols.

Explanation of each option:

(a) Formaldehyde – Incorrect. While it is a strong disinfectant, it is toxic, carcinogenic, and not routinely used for surface disinfection in clinical practice.

(b) Methanol – Incorrect. Methanol is not effective as a surface disinfectant for HIV; it is flammable and mainly used in labs.

(c) Glutaraldehyde – Incorrect. Though used for high-level disinfection of endoscopes and instruments, it is not preferred for general surface decontamination.

(d) Sodium hypochlorite – Correct. It is the standard and effective chemical for surface-level disinfection of HIV and bloodborne pathogens in healthcare settings.



**S83.** Exposure to tuberculosis (TB) does not guarantee that a person will develop active TB. Many people develop latent TB infection, meaning the bacteria stay in the body in an inactive state and do not cause symptoms or spread. Only a small percentage (~5–10%) of latent TB cases progress to active TB over their lifetime. Thus, statement (d) is scientifically incorrect.

Explanation of each option:

- (a) Tuberculosis is caused by *Mycobacterium tuberculosis* – Correct. This is the causative organism of pulmonary and extrapulmonary TB. It was discovered by Robert Koch in 1882.
- (b) People who are exposed to TB may or may not develop the disease – Correct. Exposure may lead to latent infection, not always active disease. Factors like immunity, nutrition, and comorbidities matter.
- (c) Persons with latent TB infection are not infectious and cannot spread infection to others – Correct. Latent TB patients are asymptomatic and do not expel bacteria into the air.
- (d) Every individual who is exposed to TB develops the disease – Incorrect. Only a small percentage of exposed individuals develop active TB; hence this statement is false.

**S84.** Dengue fever typically presents with sudden high-grade fever, severe muscle and joint pain (called “breakbone fever”), retro-orbital pain (behind the eyes), headache, and rash. Low-grade fever is not characteristic of dengue and may indicate a mild viral illness instead. Dengue is transmitted by *Aedes aegypti* mosquitoes, and early detection is key to prevent complications like hemorrhage or shock.

Explanation of each option:

- (a) High Fever – Correct. A fever of 103°F–105°F is a classical sign, appearing suddenly and lasting several days.
- (b) Low-grade Fever – Incorrect. Dengue usually begins with high fever, not low-grade. This makes it uncharacteristic of the disease.
- (c) Eye pain – Correct. Retro-orbital pain is a distinctive symptom, especially when moving the eyes or during fever spikes.
- (d) Joint pain – Correct. Joint and muscle pain are intense, earning dengue the name “breakbone fever” due to its severity.

**S85.** Lymphatic Filariasis, also called elephantiasis, is a parasitic disease caused by *Wuchereria bancrofti*. It leads to chronic swelling of limbs, breasts, or scrotum due to lymphatic system damage. This swelling is often irreversible and causes disability, stigma, and social isolation. The infection is spread by mosquitoes and is preventable through DEC (diethylcarbamazine) tablets under National Filaria Control Programme.

Explanation of each option:

- (a) Lymphatic Filariasis – Correct. It causes lymphatic obstruction, leading to painful, thickened, and disfigured limbs — especially in chronic untreated cases.
- (b) Dengue – Incorrect. While dengue causes acute muscle/joint pain, it does not lead to chronic limb swelling or long-term deformity.
- (c) Malaria – Incorrect. Malaria affects red blood cells and causes fever, chills, and anemia, but not lymphatic swelling.
- (d) Yellow Fever – Incorrect. Yellow fever causes jaundice and bleeding, not chronic limb swelling or lymphedema.

**S86.** Dry mouth is a common and early clinical sign of dehydration. Dehydration occurs when the body loses more fluids than it takes in, affecting normal physiological function. Reduced saliva production leads to a sticky, dry feeling in the mouth. It is often accompanied by thirst, dark urine, fatigue, and dizziness.

Explanation of each option:

- (a) Decrease thirst – Incorrect. In dehydration, thirst increases to encourage water intake. A decreased thirst is not characteristic of dehydration.
- (b) Dry Mouth – Correct. One of the earliest and most obvious signs of dehydration due to lack of sufficient fluid for saliva production.
- (c) Increased urine output – Incorrect. Dehydration usually causes reduced urine output as kidneys try to conserve water.
- (d) Fever – Incorrect. While fever may cause dehydration, it is not a direct sign of dehydration itself.

**S87.** Typhoid is a water-borne bacterial disease caused by *Salmonella typhi*. It spreads through contaminated food or water, not through the respiratory route. Diseases like influenza, mumps, and measles are spread by respiratory droplets when an infected person coughs or sneezes.

Explanation of each option:

- (a) Influenza – Correct. A viral respiratory infection spread via droplets, causing fever, chills, and body ache.
- (b) Mumps – Correct. A viral infection spread by respiratory secretions, known for causing parotid gland swelling.
- (c) Measles – Correct. A highly contagious airborne viral disease spread through sneezing/coughing.
- (d) Typhoid – Incorrect & hence the answer. It spreads via the fecal-oral route, not respiratory route.

**S88.** Rabies is caused by rabies virus (Rhabdoviridae) and mumps is caused by a paramyxovirus. Both are viral infections. Rabies spreads via animal bites and affects the central nervous system, while mumps spreads via respiratory droplets and affects the salivary glands.

Explanation of each option:

- (a) Rabies, Mumps – Correct. Both are viral diseases, one spread by bites (rabies) and the other by droplets (mumps).
- (b) AIDS, Syphilis – Incorrect. AIDS is viral (HIV), but syphilis is bacterial, caused by *Treponema pallidum*.
- (c) Typhoid, Tetanus – Incorrect. Both are bacterial diseases; typhoid is from *S. typhi*, tetanus from *C. tetani*.
- (d) Cholera, Tuberculosis – Incorrect. Both are bacterial — cholera from *Vibrio cholerae*, TB from *Mycobacterium tuberculosis*.

**S89.** Typhoid fever is caused by the bacterium *Salmonella typhi*, which is transmitted via contaminated water or food. It leads to high fever, weakness, stomach pain, and constipation or diarrhea. It is diagnosed using Widal test or blood culture and treated with antibiotics. Prevention includes proper sanitation and Typhoid Vi vaccine.

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Explanation of each option:

- (a) *Salmonella typhi* – Correct. The sole causative agent of typhoid fever, usually found in contaminated food or water.
- (b) Human papilloma virus – Incorrect. It causes genital warts and cervical cancer, not typhoid.
- (c) Fungi – Incorrect. Fungal infections include candidiasis, aspergillosis etc., and are unrelated to typhoid.
- (d) *Plasmodium vivax* – Incorrect. It is a parasite causing malaria, not typhoid fever.

**S90.** Koplik spots are tiny white or bluish-white lesions seen on the buccal mucosa near the molars, and are a pathognomonic sign of measles. They appear 1–2 days before the characteristic measles rash and help in early diagnosis. Measles is a highly contagious viral infection spread via respiratory droplets.

Explanation of each option:

- (a) Measles – Correct. Koplik spots are unique to measles and are considered a clinical diagnostic clue.
- (b) Chickenpox – Incorrect. Chickenpox causes a vesicular rash, but no oral spots like Koplik's.
- (c) Typhoid – Incorrect. Typhoid presents with fever, abdominal pain, and rose spots, not Koplik spots.
- (d) Mumps – Incorrect. Mumps affects salivary glands, causing swelling and pain, but no oral mucosal lesions like Koplik spots.

**S91.** Indian Air Force Day is celebrated on October 8 each year to mark the establishment of the Indian Air Force in 1932. It showcases the strength and capabilities of the IAF through air displays, parades, and honors to brave personnel.

Explanation of each option:

- (a) October 8 – Correct. It marks the founding day of the IAF, with celebrations held at air bases nationwide, especially in Hindon.
- (b) October 30 – Not linked with any military celebration; this date is unrelated to air force or defense forces.
- (c) November 15 – No official observance related to IAF; this date is not commemorated in military context.
- (d) September 15 – Celebrated as Engineers' Day in India, in honor of M. Visvesvaraya, not related to the Air Force.

**S92.** Bhagat Singh Koshiyari served as the Governor of Maharashtra from September 2019 to early 2023. He is a senior BJP leader and former Chief Minister of Uttarakhand. He held the constitutional head position of the state until a recent replacement in 2023 by Ramesh Bais.

Explanation of each option:

- (a) Anandiben Patel – She is the Governor of Uttar Pradesh, not Maharashtra. Also served briefly in Madhya Pradesh.
- (b) Jayant Patil – He is a senior NCP leader and MLA in Maharashtra, not a governor.
- (c) Nitin Raut – A Maharashtra cabinet minister who held the Energy Ministry portfolio, not a governor.
- (d) Bhagat Singh Koshiyari – Correct. Served as Governor of Maharashtra, though he recently stepped down.



**S93.** Shillong is the official capital of Meghalaya, a beautiful hill state in Northeast India. It lies in the East Khasi Hills district and serves as the administrative, educational, and cultural hub of the state. Shillong is well known for its pleasant climate, pine-covered hills, and British-era architecture. It's also called the "Scotland of the East" and houses the Governor's residence and state secretariat.

Explanation of each option:

- (a) Gangtok – Gangtok is the capital of Sikkim, not Meghalaya. Located in the eastern Himalayas, it is known for its Buddhist monasteries, mountain views, and as a gateway to Nathula Pass.
- (b) Imphal – Imphal is the capital of Manipur, another northeastern state. It is famous for Loktak Lake and the historic Kangla Fort, but not related to Meghalaya.
- (c) Shillong – Correct. It is the capital and largest city of Meghalaya, located at about 1,500 meters elevation, and plays a central role in the state's tourism and governance.
- (d) Agartala – Agartala is the capital of Tripura, located near the Bangladesh border. Though in Northeast India like Meghalaya, it belongs to a different state entirely.

**S94.** World Mental Health Day is observed globally on 10th October every year. It was first celebrated in 1992 by the World Federation for Mental Health (WFMH) and is now supported by WHO. The goal is to raise awareness about mental health issues, promote mental well-being, and eliminate stigma around mental illness through education and advocacy.

Explanation of each option:

- (a) 10th October – Correct. This day marks a global effort to prioritize mental health through campaigns, mental health services outreach, and awareness events.
- (b) 15th November – Not associated with mental health awareness. No major international or national day is dedicated to mental health on this date.
- (c) 20th September – Incorrect. This date is not recognized for any international mental health observance. It may sometimes relate to localized events but is not official.
- (d) 20th August – Also incorrect. This date is not related to any mental health event and holds no WHO-recognized importance for this cause.

**S95.** Rafael Nadal won the French Open men's singles title in 2020, defeating Novak Djokovic in the final. This was his 13th French Open title, further solidifying his dominance on clay courts. The event was held later than usual due to COVID-19 restrictions.

Explanation of each option:

- (a) Novak Djokovic – Reached the final in 2020 but lost to Nadal in straight sets. He is a great player but not the winner here.
- (b) Rafael Nadal – Correct. Known as the "King of Clay", he made history by winning his 13th Roland Garros title in 2020.
- (c) Roger Federer – Did not participate in the 2020 French Open due to injury and recovery; not a clay specialist like Nadal.
- (d) Stefanos Tsitsipas – Young Greek player; reached the final in 2021, not 2020. He's a future star, but not relevant here.

**S96.** Kuchipudi is a classical dance form originating from Andhra Pradesh, specifically from the village of Kuchipudi in Krishna district. It combines graceful movements, rhythmic footwork, and dramatic storytelling, often based on Hindu mythology and epics.

Explanation of each option:

- (a) Andhra Pradesh – Correct. Kuchipudi is deeply rooted in the cultural traditions of this state, and is officially recognized as one of the eight classical dances of India.
- (b) Tamil Nadu – Known for Bharatanatyam, another classical dance form, but not Kuchipudi.
- (c) Karnataka – Associated with dance forms like Yakshagana, not Kuchipudi.
- (d) Kerala – Known for Kathakali and Mohiniyattam, both of which are classical, but not linked to Kuchipudi.

**S97.** Sudha Murty, a renowned Indian author and social worker, wrote 'Grandparents' Bag of Stories'. It is a collection of short stories filled with morals, culture, and values, ideal for children and families. Her storytelling style is simple, yet impactful and deeply rooted in Indian tradition.

Explanation of each option:

- (a) Paro Anand – An Indian author known for books that address youth issues, but not the author of this title.
- (b) Ruskin Bond – Famous for writing children's literature, but 'Grandparents' Bag of Stories' is not his work.
- (c) Anushka Ravishankar – Writes humorous children's books, but again, not the author of this particular title.
- (d) Sudha Murty – Correct. She is known for her thoughtful and value-based stories, and this book is among her bestsellers.

**S98.** International Nurses Day is celebrated on 12th May to honor the birth anniversary of Florence Nightingale, the pioneer of modern nursing. This day recognizes the crucial contributions of nurses and promotes awareness regarding the issues faced by the nursing community worldwide. Various seminars, events, and public appreciation campaigns are organized globally on this day.

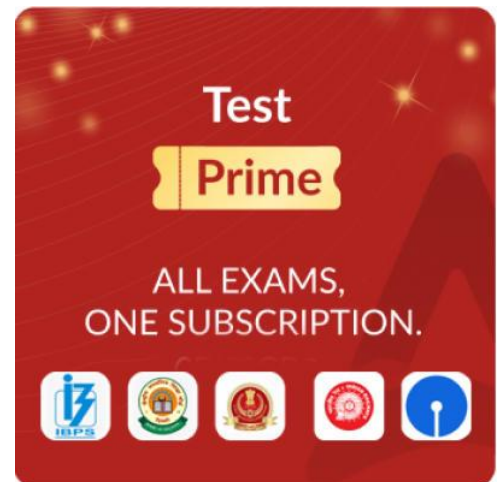
Explanation of each option:

- (a) 12th August – This day is observed as International Youth Day, not related to nursing. It focuses on youth-related global issues, not healthcare professionals.
- (b) 12th September – No official international health observance is marked on this day. It's not connected with nurses or the nursing profession.
- (c) 12th May – Correct. Marks Florence Nightingale's birthday (1820) and has been officially celebrated by WHO and nursing bodies since 1965.
- (d) 12th November – Celebrated as World Pneumonia Day, which raises awareness about pneumonia but has no direct connection with nurses.

**S99.** Sourav Ganguly, former Indian cricket captain, served as the President of the BCCI from October 2019. His leadership focused on infrastructure improvements, domestic cricket reforms, and promoting transparency in cricket governance. His tenure brought a player's vision to the board, improving relations with cricketers.

Explanation of each option:

- (a) Rahul John – This name is not associated with any official cricketing or administrative body in India; it's not a recognized sports figure.
- (b) Anil Kumble – Legendary spinner, served as coach of Indian team but never held the chairman/president role in BCCI.
- (c) Sourav Ganguly – Correct. As a respected former captain, he brought a player-first approach to cricket administration during his term.
- (d) Shashank Manohar – Former BCCI and ICC chairman, but his term ended before Ganguly's. He focused more on international cricket policy.



**S100.** Vishal Anand was an Indian actor and filmmaker, best known for the 1976 Bollywood film Chalte Chalte. His death in 2020 marked the end of a brief but memorable career in the Hindi film industry. Though not a mainstream star, his work is cherished in the romantic genre of classic Bollywood.

Explanation of each option:

- (a) Sports – Vishal Anand had no known involvement in sports. He was not an athlete or sportsperson.
- (b) Writing – He was not a known author or screenwriter; there is no notable literary work credited to him.
- (c) Journalism – Not a journalist or media personality; he never worked in reporting, editing, or news broadcasting.
- (d) Acting – Correct. He worked in the film industry as an actor and is especially remembered for the hit song “Chalte Chalte Mere Yeh Geet.”