

MD/MS/PG Diploma Entrance Test - 2013
QUESTION BOOKLET
Paper - I (Pre-Clinical & Para-Clinical)

imum Time Allowed : 2 hours

No. of Questions : 150

Maximum Marks : 150

No.

Answer Sheet No.

INSTRUCTIONS

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY

Check the booklet thoroughly : In case of any defect - Misprint, Missing Question(s) or duplication of question(s) Page(s) get the booklet changed with the booklet of the same series from the Room Invigilator. No complaint shall be entertained after the entrance test.

Write your Roll Number and Answer Sheet No. in the space provided on the Question Booklet and on the OMR Answer Sheet. Incomplete and/or incorrect particulars will result in the non-evaluation of your answer sheet.

Strictly follow the instructions given by Centre Supervisor / Room Invigilator and those given on the Question Booklet

Candidates are not allowed to carry any papers, notes, books, calculators, mobile phones, scanning devices etc. in the Examination Hall. Any candidate found using or in possession of such unauthorized material or indulging in copying or impersonation or adopting unfair means / reporting late / without Admit Card will be debarred from the Written Test

Use ONLY blue/black ball point pen for darkening the circles on the OMR Answer Sheet. Use of eraser, whitener (fluid and cutting on the OMR Answer Sheet is not allowed.

The test is of objective type containing multiple choice questions (MCQs). Each objective question is followed by four responses. Choose the correct/best response and mark your response on the OMR Answer Sheet and not in the Question Booklet.

Completely darken the CIRCLE so that the number inside the CIRCLE is not visible as shown in the example below

Correct Method

Wrong Methods

① ● ③ ④

① ② ③ ④ / ① ⊗ ③ ④ / ① ② ③ ④ / ① ● ③ ④ / ① ● ③ ●

Darken ONLY ONE CIRCLE for each answer. If you darken more than one circle, it will be treated as a wrong answer

Mark answer only in the space provided. DO NOT make any stray mark anywhere on the OMR Answer Sheet. DO NOT fold or wrinkle the OMR Answer Sheet. Rough work MUST NOT be done on the answer sheet. Use your question booklet for this purpose.

Candidates are provided carbonless OMR Answer Sheet (optical mark reader answer sheet) having original copy and candidate's copy. After completing the examination candidates are directed to fold at perforation at the top of sheet tear it to separate original copy and candidate's copy and then hand over the original copy of OMR Answer Sheet to the Room Invigilator and take candidate's copy with them.

Paper - I (Pre-Clinical & Para-Clinical)

Bandsola is a type of

1. accidental hanging
2. homicidal hanging
3. homicidal strangulation
4. accidental strangulation

Euthanasia is

1. recently recognized in India
2. recognized world wide
3. not followed in any country
4. none of these

Constricted pupils dilated on stimulation e.g. pinching in unconscious patient suggests

1. dhatura poisoning
2. alcohol poisoning
3. morphine overdose
4. cocaine poisoning

Which of the following is related with Sin of Gomorrah ?

1. Sodomy
2. Bestiality
3. Cunnilingus
4. Masochism

Cause of death in hydrocution is

1. severe electrolyte imbalance
2. asphyxia
3. reflex cardiac inhibition
4. coma

Consider the following statements in relation with firearm entry and exit wounds on skull :

- A. clean hole in inner table of entry wound
- B. bevelled opening in outer table of entry wound
- C. bevelled opening in inner table of exit wound
- D. clean hole in outer table of exit wound

Choose the correct option :

1. A is false
2. B and D are true
3. A, B and D are true
4. All are false

Under the NDPS Act 1985, following drugs are included, **except**

1. opium/heroin
2. hashish
3. amphetamine
4. dhatura

Phytotoxin abrin is obtained from

1. marking nut

9. A positive Breslau's second life test indicates

1. air in the respiratory tract
2. air in the stomach and intestine
3. mummification
4. dead born foetus

10. Which of the following pairs is **incorre** matched ?

1. 299 IPC → Culpable homicide
2. 300 IPC → Murder
3. 309 IPC → Abetment of suicide
4. 319 IPC → Hurt

11. The declaration of Oslo 1970 was in relation to

1. therapeutic abortion
2. bioterrorism
3. torture
4. drug trafficking

12. Brown rhombic crystals are seen in

1. Tiechmann's test
2. Florence test
3. Both 1 and 2
4. Takayama's test

13. Which of the following bacterium **does not** r Koch's postulate ?

1. Enterococcus faecalis
2. Treponema pallidum
3. Bacillus anthracis
4. Brucella abortus

14. The structure which is responsible for respirati bacteria is

1. mesosomes
2. cytoplasmic membrane
3. Golgi apparatus
4. mitochondria

15. Oxidase Test is negative in which of the follo bacteria ?

1. Neisseria
2. Pseudomonas
3. Proteus
4. Vibrio

16. Spores of which of the following is used as biolo control of autoclave ?

1. Bacillus subtilis
2. Bacillus stearothermophilus
3. Clostridium septicum
4. Clostridium perfringens

17. Which of the following is an example of surface a agent used as a disinfectant ?

1. Formalin
2. Quaternary ammonium compounds

3. Which of the following immunoglobulin crosses placental barrier ?
 1. IgE
 2. IgG
 3. IgM
 4. IgA
3. VDRL test is an example of
 1. agglutination reaction
 2. complement fixation test
 3. neutralization test
 4. flocculation test
3. Interleukin - 2 promotes
 1. growth of fibroblast
 2. maturation of macrophage
 3. B-cell differentiation
 4. expression of T-lymphocytes
1. Delayed hypersensitivity is mediated by
 1. N K cell
 2. B - Lymphocytes
 3. T - Lymphocytes
 4. Eosinophils
2. The second common cause of uncomplicated urinary tract infection (UTI) in women is
 1. proteus mirabilis
 2. escherichia coli
 3. staphylococcus aureus
 4. staphylococcus saprophyticus
3. Acute rheumatic fever is diagnosed by
 1. Schick test
 2. Dick test
 3. ASO test
 4. Paul-Bunnell test
4. Pneumococcal antigen in cerebro spinal fluid (CSF) is detected by
 1. ELISA
 2. haemagglutination
 3. latex agglutination
 4. flocculation
5. Non-gonococcal urethritis in male is caused by
 1. coxiella burnetii
 2. chlamydia trachomatis
 3. candida albicans
 4. cryptosporidium parvum
6. Pseudomembranous colitis is associated with which of the following antibiotic use ?
 1. Nalidixic acid
 2. Clindamycin
 3. Vancomycin
 4. Chloramphenicol
27. Most potent exotoxin is produced by
 1. corynebacterium diphtheriae
 2. clostridium botulinum
 3. clostridium tetani
 4. vibrio cholerae
28. 'Traveller's Diarrhoea' is caused by
 1. shigella sonnei
 2. enterotoxigenic E. coli
 3. giardia lamblia
 4. enteroinvasive E. coli
29. 'Koplik spots' are characteristically seen in
 1. rubella
 2. mumps
 3. measles
 4. cytomegalovirus
30. Which of the following establishes latent infection
 1. Herpes virus
 2. Yellow fever virus
 3. Coxsackie virus
 4. Dengue virus
31. Japanese encephalitis is transmitted by
 1. bed bug
 2. tick
 3. aedes mosquito
 4. culex mosquito
32. 'Negri bodies' are diagnostic for
 1. variola
 2. vaccinia
 3. rabies
 4. chickungunya
33. The most common opportunistic infection in A patient in India is
 1. toxoplasmosis
 2. cryptococcosis
 3. tuberculosis
 4. cryptosporidiosis
34. Osteoblastic skeletal metastasis characteristically seen in
 1. breast carcinoma
 2. renal cell carcinoma
 3. prostatic carcinoma
 4. bronchogenic carcinoma
35. 'Psammoma body' is an example of
 1. dystrophic calcification
 2. dysplasia
 3. metaplasia
 4. metastatic calcification
36. Which of the following human tissue is the most resistant to irradiation ?
 1. Lung
 2. Gonads
 3. Adult brain
 4. Bone marrow

In classical Hodgkins Lymphoma, the Reid-Sternberg cells are positive for

1. CD 15 & CD 30
2. CD 30 & CD 19
3. CD 20 & CD 15
4. CD 19 & CD 10

Philadelphia chromosome in chronic myeloid leukemia can be demonstrated in

1. endothelial cell
2. myeloid series of cells
3. lymphocyte
4. all of these

The most common lung cancer in a nonsmoker is

1. squamous cell carcinoma
2. adenocarcinoma
3. small cell carcinoma
4. large cell carcinoma

Which of the following Hb is resistant to alkali denaturation ?

1. Hb A
2. Hb A2
3. Hb F
4. Hb S

The largest cell in the development of myeloid series is

1. myeloblast
2. promyelocyte
3. myelocyte
4. metamyelocyte

In the maturation of the RBCs the Hb starts appearing in

1. early normoblast
2. late normoblast
3. pronormoblast
4. intermediate normoblast

Barret's oesophagous

1. is usually seen in upper one third of oesophagous
2. shows intestinal metaplasia on histology
3. is a neoplastic condition
4. has an increased incidence of squamous cell carcinoma

High mortality rate amongst pregnant women is usually associated with hepatitis virus

1. E infection
2. A infection
3. B infection
4. C infection

'Flea-bitten' appearance of kidney is seen in

1. chronic glomerulonephritis
2. malignant hypertension
3. chronic pyelonephritis

46. Vegetations in Rheumatic heart disease

1. are infected in nature
2. usually extend to mural endocardium and chordae tendineae
3. usually produce ring abscess
4. are small and warty along the line of closure of valvular leaflet

47. Nut-Meg liver is seen in

1. amyloidosis liver
2. cirrhosis liver
3. chronic venous congestion liver
4. hepatoma

48. Apoptosis is characterized by

1. cell shrinkage
2. intense inflammatory reaction in surrounding host tissue
3. disruption of cell membrane
4. nuclear swelling

49. Neutrophil alkaline phosphatase is reduced in

1. chronic myeloid leukemia
2. acute myeloid leukemia
3. chronic neutrophilic leukemia
4. sepsis

50. In ulcerative colitis

1. skip lesions are seen in intestine
2. inflammation is limited to mucosa
3. marked fibrosis of wall of colon is present
4. fissuring & fistula are common manifestation

51. Mycobacterium tuberculosis bacilli can multiply with phagosome by

1. inhibiting alternate complement pathway
2. suppressing cytotoxic T cells
3. preventing fusion of phagosome with lysosome
4. inhibiting Na⁺ K⁺ ATP-ase pump

52. Which of the following organisms is associated with cervix cancer ?

1. Helicobacter pylori
2. Human papilloma virus
3. Epstein-barr virus
4. Human herpes virus 8

53. Which of the following is the mode of inheritance of sickle cell anemia ?

1. Autosomal dominant
2. X-linked dominant
3. X-linked recessive
4. Autosomal recessive

4. Which of the following stains is used for identification of amyloids ?
1. Sudan black B
 2. Congo red
 3. Per iodide acid schiff
 4. Masson fontana
5. All of the following are prodrugs **except**
1. levo dopa
 2. sulfasalazine
 3. clonidine
 4. prednisone
6. Which of the following drugs undergoes acetylation reaction ?
1. Morphine
 2. Procainamide
 3. Paracetamol
 4. Dopamine
7. Which of the following statements is correct about zero order kinetics ?
1. A constant amount of drug in the body is eliminated per unit time
 2. Rate of elimination is dependent on plasma drug concentration
 3. The $t_{1/2}$ of drugs undergoing zero order kinetic is always constant
 4. Most drugs follow zero order kinetics
8. Which of the following drugs is **not** bound to the plasma proteins ?
1. Penicillin
 2. Ketoconazole
 3. Lithium carbonate
 4. Phenylbutazone
9. Which of the following drugs **does not** undergo entero-hepatic recycling ?
1. Penicillin
 2. Ampicillin
 3. Digoxin
 4. Estrogen
10. Which of the following drugs is excreted primarily unchanged ?
1. Streptomycin
 2. Isoniazid
 3. Ethanol
 4. Diazepam
11. Which of the following drugs **does not** require dose adjustment in the patient with renal impairment ?
1. Gentamicin
 2. Morphine
 3. Doxycycline
 4. Digoxin
12. Which of the following drugs **does not** cross placental barrier ?
1. Heparin
 2. Propranolol
 3. Indomethacin
 4. Phenobarbitone
63. Which of the following is the drug of choice paroxysmal supraventricular tachycardia ?
1. Propranolol
 2. Diltezam
 3. Adenosine
 4. Carbachol
64. Hereditary deficiency of which of the following enzyme leads to succinylcholine apnea ?
1. Plasma cholinesterase
 2. Alcohol dehydrogenase
 3. Glucose-6-phosphate dehydrogenase
 4. Dopa decarboxylase
65. Which of the following drugs is **not** used in treatment of multi-drug resistant tuberculosis ?
1. Tobramycin
 2. Clarithromycin
 3. Ciprofloxacin
 4. Amikacin
66. Which of the following fluoroquinolone is most effective against gram positive bacteria & anaerobes ?
1. Ciprofloxacin
 2. Sparfloxacin
 3. Norfloxacin
 4. Lomefloxacin
67. Thalidomide is **not** indicated in which of the following conditions ?
1. Melanoma
 2. Multiple myeloma
 3. Hodgkin's lymphoma
 4. Erythema nodosum leprosum
68. Which of the following is used to counteract electrolyte imbalance ?
1. Folic acid
 2. Cyanocobalamin
 3. Potassium chloride
 4. Calcitriol
69. All of the following statements about botulinum toxin are true **except**
1. there are eight known serotypes of naturally produced botulinum toxin
 2. serotype A is the most widely used botulinum toxin for clinical use
 3. serotype B is commercially available for clinical use
 4. the toxin blocks neurotransmission in the presynaptic end plate
70. Which of the following is true about metronidazole ?
1. It is bacterostatic
 2. It inhibits bacterial protein synthesis
 3. It is most effective against gram positive bacteria
 4. Alcohol should be avoided while taking it

All of the following are true about metformin **except**

1. it is a biguanide
2. it causes hypoglycemia in non-diabetics
3. it causes anorexia and weight loss
4. it can cause lactic acidosis

Which of the following statements is true about carbimazole ?

1. It decreases thyroid hormone synthesis
2. It inhibits peripheral conversion of T₄ to T₃
3. It should be discontinued if rash develops
4. It decreases the level of TSH

Chronic administration of glucocorticoids results in all of the following **except**

1. hypertension
2. hyperkalemia
3. proximal myopathy
4. glaucoma

Adverse effects of cyclosporine include all of the following **except**

1. tremor
2. nephrotoxicity
3. hirsutism
4. hypokalemia

Which of the following is true about latanoprost ?

1. It increases uveoscleral outflow
2. It increases trabecular meshwork outflow
3. It causes pupillary dilatation
4. It causes iris hyperpigmentation

Which of the following hormones **does not** use adenylyl cyclase-CAMP as second messenger system ?

1. ACTH
2. Calcitonin
3. Secretin
4. Oxytocin

Which one of the following is the correct set of pH values for optimum action of enzymes ?

1. Pepsin pH 5.0 - 6.0
Salivary amylase pH 2.0 - 3.0
Secretin pH 5.5 - 6.5
2. Pepsin pH 2.0 - 3.0
Salivary amylase pH 4.0 - 5.0
Secretin pH < 3.0
3. Pepsin pH 4.5 - 5.5
Salivary amylase pH 3.2 - 3.5
Secretin pH 5.0 - 6.0
4. Pepsin pH 4.0 - 4.5
Salivary amylase pH 3.0 - 4.0
Secretin pH 5.0 - 5.5

78. Which of the following vitamins is synthesized by intestinal bacteria and absorbed in significant quantities ?

1. Vitamin B₆
2. Vitamin K
3. Thiamine
4. Folic acid

79. All the following will cause an increase in reabsorption of bicarbonate in the kidney **except**

1. hyperaldosteronism
2. hypercapnia
3. metabolic acidosis
4. hyperkalemia

80. The extra cellular potassium of a hyperkalemic patient can be decreased by administering

1. atropine
2. epinephrine
3. glucagon
4. lactic acid

81. Which of the following is **not** a metabolic function?

1. Inactivation of angiotensin II
2. Inactivation of prostaglandins
3. Synthesis of prostaglandins
4. Synthesis of surfactant

82. Hypoxia (Pa O₂ = 55 mm Hg) has all the following effects **except**

1. it stimulates carotid body chemoreceptor
2. it stimulates central chemoreceptor
3. it causes a reflex increase in ventilation
4. it causes a reflex increase in arterial BP

83. Which of the following will increase as a result of stimulating parasympathetic nerves to the bronchial smooth muscle ?

1. Lung compliance
2. Elastic work of breathing
3. Resistive work of breathing
4. Airway diameter

84. Male hypogonadism could be produced by a lesion in all the following sites **except**

1. testes
2. pituitary gland
3. pineal gland
4. globus pallidus

85. Which of the following hormones **does not** exert a trophic effect ?

1. TSH
2. Prolactin
3. ACTH
4. FSH

86. Stroke volume will be increased by increasing the contractile activity of all the following **except**

1. venous vessels
2. arterial vessels
3. ventricles

Blood pressure increases and heart rate decreases in response to

1. exercise
2. increased body temperature
3. exposure to high altitude
4. increased intra cranial pressure

Connexon is an important component of the

1. gap junction
2. sarcoplasmic reticulum
3. synaptic vesicle
4. sodium channel

In a healthy adult who is alert and sitting with eyes closed, the dominant EEG rhythm observed with electrodes over the occipital lobes is

1. delta (0.5 - 4 Hz)
2. theta (4 - 7 Hz)
3. alpha (8 - 13 Hz)
4. beta (18 - 30 Hz)

Narcolepsy is triggered by abnormalities in the

1. skeletal muscles
2. hypo thalamus
3. medulla oblongata
4. neocortex

Vitamin A is a precursor for the synthesis of

1. somatostatin
2. retinene 1
3. scotopsin
4. aqueous humour

Which of the following was launched as a flagship programme of Government of India in 2005 ?

1. RNTCP
2. NRHM
3. IDSP
4. NLEP

Which one of the following is **not** an intrinsic factor or determinant of health ?

1. Genetic background
2. Health related behaviour
3. Industrialization
4. Immunological background

Which of these is **not** a theory of disease causation?

1. Epidemiological triad
2. Web of causation
3. Germ theory
4. Risk factor theory

In case of exposure, how many doses of cell culture vaccine should be given as post exposure prophylaxis to individuals who have received complete pre-exposure vaccination ?

1. One dose of 1M or 1D
2. Two doses of 1M or 1D
3. One dose of intramuscular or intradermal plus RIG
4. Two doses of 1M or 1D plus RIG

96. HIV testing is **not** mandated for which of the following ?

1. Epidemiological survey
2. Blood screening
3. Planned surgery
4. Testing as part of clinical management

97. Qualitative data **cannot** be graphically depicted by

1. multiple bar chart
2. histogram
3. pie chart
4. component bar chart

98. Which of the following statements is true for biochemical oxygen demand of sewage ?

1. Amount of oxygen required to oxidise the organic matter
2. Amount of oxygen absorbed by a sample of sewage during a specified period
3. Amount of carbon dioxide and water released from a sewage sample
4. Sewage with BOD of 100 mg/l or below is termed as strong

99. During the pollution under control (PUC) check vehicles, which gas is checked ?

1. NO₂
2. CO
3. Particulates
4. SO₂

100. Which is **not** a contraindication for oral contraceptive pill use ?

1. Anaemia
2. Hyperlipidemia
3. Urrhosis of liver
4. Unexplained vaginal bleeding

101. Emergency contraceptive if taken appropriately can prevent

1. 90% of pregnancies
2. 50% of pregnancies
3. 75% of pregnancies
4. 25% of pregnancies

102. Which of these activities is **not** carried out at Anganwari as a routine ?

1. Supplementary nutrition
2. Immunization
3. Non formal education
4. Health education

103. Which one of these is an ideal method for the control of vectors in epidemic situations ?

1. Residual spraying
2. Fumigation
3. Space spraying
4. Adding temephos to potable water

4. Fortification of foods with specific nutrients is an example of
1. primordial prevention
 2. primary prevention
 3. secondary prevention
 4. tertiary prevention
5. Government of India formed the following committee to give recommendations to solve the problem of child labour in India
1. Mudaliar
 2. Gurupadswamy
 3. Tendulkar
 4. Ramakrishna
6. In the national nutritional programme 'Balahar' which food item is used most ?
1. Eggs
 2. Soyabean
 3. Ground nut
 4. Sprouts
7. Inactivated polio vaccine is contraindicated in the following condition
1. pregnancy
 2. polio epidemic
 3. immune compromised
 4. age above 50 years
8. Commonest cause of death associated with measles is
1. severe diarrhoea
 2. measles encephalitis
 3. subacute sclerosing panencephalitis
 4. pneumonia
9. Which one of the following vaccines should never be frozen ?
1. Diphtheria toxoid
 2. Oral polio vaccine
 3. MMR
 4. BCG
10. Continuation phase for MDR tuberculosis is
1. 6 months
 2. 12 months
 3. 18 months
 4. 24 months
11. Extra pulmonary tuberculosis comprises of
1. 25% of all new infections
 2. 50% of all new infections
 3. 10-15% of all new infections
 4. 5% of all new infections
12. Breast self examination should be conducted preferably once
1. a month ten days after the menstrual period
 2. a month ten days before the menstrual period
 3. a week
113. Which of the following statements is **false** ?
1. Male health worker administers antimalar treatment
 2. Traditional birth attendants are trained for a period of 30 days to conduct safe deliveries
 3. The work of Anganwari centre is supervised CDPO
 4. The male health worker is paid by State Government and female health worker by Central Government
114. According to amendment in Births And Death Registration Act, the births and deaths are required to be notified within _____ days to the registrar
1. 7
 2. 14
 3. 21
 4. 30
115. Surveillance of which type is **not** conducted under NACP III ?
1. AIDS case surveillance
 2. Sentinel surveillance
 3. Blood safety surveillance
 4. Behavioural surveillance
116. As per ILO which of the following is **not** pneumoconiosis ?
1. Silicosis
 2. Anthracosis
 3. Bagassosis
 4. Asbestosis
117. Cornea is lined by
1. pseudostratified epithelium
 2. transitional epithelium
 3. stratified squamous keratinized epithelium
 4. stratified squamous non keratinized epithelium
118. Upper border of sternum lies at the level of
1. upper border of first thoracic vertebra
 2. lower border of first thoracic vertebra
 3. upper border of second thoracic vertebra
 4. lower border of second thoracic vertebra
119. The diaphragm is at the lowest level in
1. sitting position
 2. supine position
 3. standing position
 4. prone position
120. Lymphatics from glans penis drains into which following lymph nodes
1. superficial inguinal
 2. deep inguinal
 3. internal iliac

1. Sphenopalatine ganglion is a
 1. sympathetic ganglion
 2. parasympathetic ganglion
 3. pseudo ganglion
 4. sensory ganglion
2. Left ovarian vein drains into
 1. inferior vena cava
 2. left renal vein
 3. inferior mesenteric vein
 4. splenic vein
3. Callot's triangle is bounded by all of the following **except**
 1. hepatic artery
 2. common hepatic duct
 3. inferior border of liver
 4. cystic duct
4. The following group of lymph nodes receives lymphatics from the uterus **except**
 1. external iliac
 2. internal iliac
 3. superficial inguinal
 4. deep inguinal
5. Bowman's glands are located in
 1. nasal cavity
 2. pharynx
 3. larynx
 4. vestibule
6. Activated B lymphocytes give rise to
 1. pericytes
 2. macrophages
 3. mast cells
 4. plasma cells
7. The nerve responsible for fine movement of hand is
 1. radial
 2. median
 3. posterior interosseus
 4. ulnar
8. Injury of which of the following nerves results in loss of patellar reflex
 1. tibial
 2. common peroneal
 3. obturator
 4. femoral
9. The blood-brain barrier is present in which of the following sites
 1. choroid plexus
 2. area postrema
 3. spinal cord
 4. pituitary
10. A lesion of extrapyramidal system exhibits the following signs and symptoms **except**
 1. athetosis
 2. hemiballismus
 3. intention tremors
 4. chorea
11. Mucus secreting glands are absent in
 1. cervix
 2. oesophagus
 3. duodenum
 4. vagina
12. Which one of the following muscles is spared in ulnar nerve injury at wrist?
 1. Palmar interossei
 2. Dorsal interossei
 3. Adductor pollicis
 4. Opponens pollicis
13. At Iso-electric pH, an amino acid bears
 1. no net charge
 2. positive charge
 3. negative charge
 4. amphipathic
14. Alpha helix and beta pleated sheet are examples of
 1. primary structure
 2. quaternary structure
 3. tertiary structure
 4. secondary structure
15. After digestion by restriction endonucleases DNA strands can be joined again by
 1. DNA polymerase
 2. DNA ligase
 3. DNA topoisomerase
 4. DNA gyrase
16. The vitamin which is **not** essential for citric acid cycle is
 1. riboflavin
 2. niacin
 3. pantothenic acid
 4. retinoic acid
17. Regulation of blood glucose after a meal is mainly dependent on
 1. hexokinase
 2. glucokinase
 3. phosphofructokinase
 4. pyruvate kinase
18. Lipoprotein lipase is located in
 1. small intestine
 2. peripheral nerve
 3. walls of blood capillaries
 4. hepatic receptors
19. Ribozymes are
 1. RNA molecules with catalytic activity
 2. enzymes of retina
 3. promoters
 4. poly (A) polymerase

3. Regulation of Prokaryotic gene expression includes
 1. chromatin re-modelling
 2. histone covalent modification
 3. enhancer elements
 4. de-repression of a gene
1. Lack of reaction to our own human leukocyte antigens (HLA'S) is known as ?
 1. Autoimmunity
 2. Complement system
 3. Tolerance
 4. Suppression
2. Calcium is required for the following, **except**
 1. coagulation
 2. neuromuscular transmission
 3. absorption of iron
 4. intracellular messenger
3. Biochemical function of vitamin K includes
 1. conversion of proline to hydroxyproline
 2. conversion of lysine to hydroxylysine
 3. gamma carboxylation of clotting factors
 4. inhibition of lipid peroxidation in biomembranes
4. In respiratory acidosis, patient will show which of the following features ?
 1. A low P_{CO_2}
 2. Lowered plasma bicarbonate
 3. Decreased rate and depth of respiration
 4. Decreased hydrogen ion concentration in plasma
5. Haemolytic transfusion reactions occur usually due to incompatible
 1. agglutinins present in the recipient's blood
 2. agglutinins present in the donor's blood
 3. agglutinogens present in the recipient's blood
 4. agglutinins present both in the recipient's and donor's blood
146. Which of the following statements is correct regarding the physiological basis of ABO system
 1. H antigen is the basic antigen and is found in all individuals
 2. In antigen A the terminal sugar is galactose
 3. In antigen B the terminal sugar is N-acetyl galactosamine
 4. In group O persons both transferases are present so that antigen H does not persist in them
147. Blood doping indicates
 1. introducing drugs into blood
 2. taking donor's blood with drugs
 3. athletes storing their own blood or RBC and then reinjecting in 2-3 sessions a few days before the event
 4. accidental injection of drugs into blood
148. Blood in a blood bank is stored in
 1. heparin
 2. double oxalate
 3. vitamin K
 4. citrate phosphate dextrose adenine mixture
149. The earliest effects of a mismatched transfusion
 1. transmission of disease
 2. circulatory shock
 3. severe pain in the body with a sense of suffocation and tightness in the chest
 4. renal failure
150. All the following are absolute indications for blood transfusion **except**
 1. chronic anaemias
 2. bleeding disorders
 3. acute haemorrhage
 4. chronic renal failure

