



GGSRDN
Educational Services Private Limited
9th, 10th, NEET, JEE(Main/Advanced)

अभ्यास ही सबसे बड़ा गुरु है।

FRESHER-NEET

For Class : XII

DPP

Daily Practice Problem

ZOOLOGY

Set Your Target and Keep Try in Until You Reach It.

DPP No. : 01

CHAPTER-REPRODUCTION IN ORGANISMS

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

1. Which of the following is not a unicellular organism?
(A) Amoeba (B) Paramoecium
(C) Hydra (D) Yeast
2. Which of the following shows budding?
(A) Yeast (B) Amoeba
(C) Paramoecium (D) Plasmodium
3. Which of the following shows multiple fission?
(A) Hydra (B) Yeast
(C) Spirogyra (D) Plasmodium
4. Which is the most common method of reproduction in majority of fungi?
(A) Binary fission (B) Multiple fission
(C) Budding (D) Spore formation
5. Which of the following shows spore formation?
(A) Amoeba (B) Mucor
(C) Plasmodium (D) Paramoecium
6. Regeneration is observed in _____.
(A) Amoeba (B) Planaria
(C) Spirogyra (D) Yeast
7. Which of the following does not show regeneration?
(A) Mucor (B) Planaria
(C) Sponges (D) Starfish
8. Which of the following shows budding?
(A) Hydra (B) Amoeba
(C) Paramoecium (D) Spirogyra
9. Several new individuals are produced.
(A) Binary fission (B) Multiple fission
(C) Both binary fission and multiple fission (D) Fertilisation
10. Testes in human male are located in _____.
(A) Abdominal cavity (B) vas deferens
(C) scrotum (D) penis

DPP No. : 02
CHAPTER-HUMAN REPRODUCTION

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION A : Male reproductive system

- The stage at which there is a gradual change in structure of reproductive organs in human male and female is called
(A) spermatogenesis (B) oogenesis
(C) menarche (D) puberty
- Spot the odd one out from the following structures with reference to the male reproductive system.
(A) Rete testis (B) Epididymis
(C) Vasa efferentia (D) Isthmus
- The interstitial cells or Leydig secrete
(A) Aldosterone (B) Testosterone
(C) Progesterone (D) Spermatocytes
- The vas deferens receives duct from the seminal vesicle and opens into urethra as
(A) Epididymis (B) Ejaculatory duct
(C) Efferent ductule (D) Ureter
- Urethral meatus refers to the
(A) Urinogenital duct (B) Opening of vas deferens into urethra
(C) External opening of the urinogenital duct (D) Muscles surrounding the urinogenital duct
- The cells found in testes are
(A) Sertoli cells (B) Leydig cells
(C) Germ cells (D) All of the above
- Longest passage of male reproductive system is
(A) Vas deferens (B) epididymis
(C) seminal vesicle (D) vasa efferentia
- The function of vas deferens is to
(A) store sperms (B) conduct sperms
(C) mature sperms (D) Both 1 & 2
- In human, the unpaired male reproductive structure is
(A) Seminal vesicle (B) Prostate
(C) Bulbourethral gland (D) Testes
- In mammals, the testes are connected posteriorly byto scrotal sacs.
(A) Spermatoc cords (B) Dartos muscles
(C) Rachis (D) Gubernaculum

DPP No. : 03
CHAPTER-HUMAN REPRODUCTION

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION A : Male reproductive system

- Corpus spongiosum is a part of
(A) Ovary (B) Testis (C) Uterus (D) Penis
- The duct that transports the sperms into the urethra
(A) Vas deferens (B) Epididymal duct (C) Ureter (D) Ejaculatory duct
- Interstitial cells
(A) Produce the hormone progesterone
(B) Are located in the testes
(C) Give rise to spermatids during sperm formation
(D) Located inside the seminiferous tubules
- In the vertebrates testes, for nourishment during spermiogenesis, the spermatids get attached to
(A) Interstitial cells (B) Sperm mother cells
(C) Spermatocytes (D) Sertoli cells
- Gubernaculum is the ligamentous connective cord which connects
(A) Testes to scrotum (B) Ovary to body wall
(C) Testes to abdominal wall (D) None of these
- The majority of the semen is produced by the
(A) Seminal vesicles (B) Prostate gland
(C) Bulbourethral gland (D) Seminiferous tubules
- Once sperms are produced by the testes they move into and mature in the
(A) Seminiferous tubes (B) Vas deferens
(C) Penis (D) epididymis
- Match between the following representing parts of the sperm and their functions and choose the correct option.

	Column A		Column B
A.	Head	i.	Enzymes
B.	Middle piece	ii.	Sperm motility
C.	Acrosome	iii.	Energy
D.	Tail	iv.	Genetic material

- (A) A → ii, B → iv, C → i, D → iii (B) A → iv, B → iii, C → i, D → ii
(C) A → iv, B → i, C → ii, D → iii (D) A → ii, B → i, C → iii, D → iv
- Spermiation is the process of the release of sperms from
(A) Seminiferous tubules (B) Vas deferens
(C) Epididymis (D) Prostate gland
 - Seminal plasma, the fluid part of semen, is contributed by
i. Seminal vesicle
ii. Prostate
iii. Urethra
iv. Bulbourethral gland
(A) i and iii (B) i, ii and iv (C) ii, iii and iv (D) i and iv

DPP No. : 04
CHAPTER-HUMAN REPRODUCTION

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION B : Female reproductive system

- The tubular portion of the uterus that extends downward into the upper portion of the vagina is the
(A) Urethra (B) Ejaculatory duct (C) Cervix (D) Perimetrium
- Fimbriate funnel is directly related with -
(A) Ureter (B) Testes (C) Vas deferens (D) Oviduct
- The _____ are finger-like projections at one end of the fallopian tube.
(A) Isthmus (B) Fimbriae (C) Fundus (D) Body
- The internal orifice connects the uterine cavity to the _____ cavity.
(A) Uterus (B) Vagina (C) Cervical (D) None of these
- Part of oviduct closer to the ovary is(i)..... . That leads to a wider part of the oviduct called(ii)..... the last part of the oviduct is called (iii) which opens in uterus. (i), (ii) and (iii) are respectively-
(A) Ampulla, Isthmus, infundibulum (B) Isthmus, Ampulla, infundibulum
(C) infundibulum, Ampulla, Isthmus (D) infundibulum, Isthmus, Ampulla
- Ovary is attached with the back of body wall by
(A) Mesorchium (B) Mesosalpinx (C) Mesovarium (D) Ovarian ligament
- Which of the following is the group of external genitalia in human female ?
(A) Labium minora, labium majora, uterus (B) Labium minora, labium majora, clitoris
(C) Labium minora, labium majora, oviduct (D) Labium minora, labium majora, cervix
- Onset of the function of ovary is found in
(A) Before birth (B) After birth but before puberty
(C) In the age of puberty (D) After puberty
- Match the following.

	Column I		Column II
i.	Birth canal	a.	Primary sex organ
ii.	Womb	b.	Cushion of fatty tissue and covered by hairs
iii.	Ovary	c.	Cervical canal along with vagina
iv.	Mons pubis	d.	Inverted pear shape and supported by ligaments

- (A) i → c, ii → d, iii → a, iv → b
(B) i → a, ii → d, iii → c, iv → b
(C) i → c, ii → b, iii → d, iv → a
(D) i → b, ii → c, iii → d, iv → a
- Atretic follicles are found in the
(A) Liver (B) Testis (C) Thymus (D) Ovary

DPP No. : 05
CHAPTER-HUMAN REPRODUCTION

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION B : Female reproductive system

- The _____ is a thin epithelial fold that partially blocks the entrance to the vagina.
(A) Fornix (B) Hymen (C) Labia Majora (D) Labia Minora
- The clitoris is derived from the same embryonic tissue as the
(A) Penis (B) Scrotum (C) Testes (D) Prostate
- Which of the following is an unpaired structure
(A) Ovaries (B) Labia majora (C) Labia minora (D) Clitoris
- Identify the odd one from the following.
(A) Labia minora (B) Fimbriae (C) Infundibulum (D) Isthmus
- The changes in a mammalian sperm to prepare it to fertilize the ovum are termed as
(A) metamorphosis (B) capacitation (C) maturation (D) preparation
- FSH and LH
(A) promote the production of gametes and reproductive hormones
(B) inhibit the production of prolactin
(C) are produced in the hypothalamus
(D) production is increased by TSH
- The membranous cover of the ovum at ovulation is
(A) Corona radiata (B) Vitelline membrane (C) Zona pellucida (D) Chorion
- Mature Graafian follicle is generally present in the ovary of a healthy human female around
(A) 5 – 8 day of menstrual cycle (B) 11 – 17 day of menstrual cycle
(C) 18 – 23 day of menstrual cycle (D) 24 – 28 day of menstrual cycle
- The growth of Graafian follicle is stimulated mainly by
(A) FSH (B) LH (C) Estrogen (D) ICSH
- In the absence of pregnancy, corpus luteum
(A) become active, secretes FSH and LH (B) degenerates to form corpus albicans
(C) is maintained by progesterone (D) produces a lot of oxytocin and relaxin

DPP No. : 06
CHAPTER-HUMAN REPRODUCTION

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION C : Gametogenesis and reproductive cycles

- Both corpus luteum and macula lutea are
(A) found in human ovaries (B) a source of hormones
(C) characterized by a yellow colour (D) contributory in maintaining pregnancy
- The part of mammalian ovary acting as an endocrine gland
(A) Germinal epithelium (B) Vitelline membrane
(C) Graafian follicle (D) Stroma
- In human adult females oxytocin
(A) causes strong uterine contractions during parturition
(B) stimulates pituitary to secrete vasopressin
(C) stimulates growth of mammary glands
(D) is secreted by anterior pituitary
- The process of oogenesis produces _____ viable ovum/ova.
(A) 4 (B) 3 (C) 2 (D) 1
- The first menstruation begins at(a)..... and is called(b)....., (a) and (b) are respectively.
(A) (a) menarche, (b) puberty (B) (a) menopause, (b) puberty
(C) (a) puberty, (b) menopause (D) (a) puberty, (b) menarche
- Rapid secretion of(a)..... leading to its maximum level during the mid-cycle called(b)..... Which induces rupture of graafian follicles and there by the release of ovum. a and b are respectively.
(A) a → progesterone, b → progesterone surge (B) a → LH, b → LH surge
(C) a → FSH, b → FSH surge (D) c → Estrogen, b → Estrogen surge
- If after ovulation no pregnancy results, the corpus luteum -
(A) Is maintained by the presence of progesterone
(B) Degenerates in a short time
(C) Becomes active and secretes lot of FSH and LH
(D) Produces lot of oxytocin and relaxin
- In a twenty year old unmarried female who has never conceived and whose age of attainment of puberty was at twelve years. Approximately how many ovum (secondary oocyte) would have been formed till date?
(A) 48 - 60 (B) 96-100 (C) 192-200 (D) 500-1000
- Cumulus covers
(A) Ovary (B) Ovum (C) Embryo (D) All of these
- Ovulation occurs
(A) Alternately from two ovaries (B) Simultaneously from both the ovaries
(C) From one ovary alone throughout the life (D) According to the season from two ovaries

DPP No. : 07
CHAPTER-HUMAN REPRODUCTION

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION C : Gametogenesis and reproductive cycles

- When pregnancy does not occur, the life of corpus luteum is about
(A) 10 days (B) 14 days
(C) 28 days (D) Corpus luteum is not found
- The last menstruation found in(a)..... and is called(b)....., (a) and (b) are respectively.
(A) (a) menarche (b) puberty
(B) (a) menopause (b) 50 year age
(C) (a) 50 year age (b) menopause
(D) (a) puberty (b) menarche
- Which of the following is the largest in size?
(A) Mature sperm cell (B) Mature egg cell
(C) Polar body (D) They are all approximately the same size
- Which layer of uterus undergo cyclical changes during menstrual cycle.
(A) perimetrium (B) myometrium
(C) endometrium (D) myometrium and endometrium
- Which hormone/s will be higher in the mid of the menstrual cycle
(A) LH (B) FSH (C) Estrogen (D) progesteron
(A) A only (B) A & B (C) A,B,C (D) All
- The name of the small cell separates from the ovum during maturation is –
(A) Primordial germinal cell (B) Polocyte
(C) Secondary germinal cell (D) Primary spermatocyte
- Besides activating the egg, another role of a sperm is to carry to egg:
(A) RNA (B) DNA (C) Ribosomes (D) Mitochondria
- The immature male germ cell undergoes division to produce sperms by the process of spermatogenesis. Choose the correct one with reference to above.
(A) Spermatogonia have 46 chromosomes and always undergo meiotic cell division
(B) Primary spermatocytes divide by mitotic cell division
(C) Secondary spermatocytes have 23 chromosomes and undergo second meiotic division
(D) Spermatozoa are transformed into spermatids
- Acrosomal reaction of the sperm occurs due to
(A) Its contact with zona pellucida of the ovum
(B) Reactions within the uterine environment of the female
(C) Reactions within the epididymal environment of the male
(D) Androgens produced in the uterus
- The chemical substance found in the surface layer of cytoplasm of spermatozoa is
(A) Fertilizin (B) Agglutinin (C) Antifertilizin (D) Hyaluronidase

DPP No. : 08
CHAPTER-HUMAN REPRODUCTION

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION D : Fertilization and Embryonic development

- Fertilization restores
(A) Haploidy from diploidy (B) Diploidy from polyploidy
(C) Polyploidy from diploidy (D) Diploidy from haploidy
- Polyspermy refers to
(A) Formation of many sperms by a male
(B) Changes in sperm nucleus
(C) Formation of many sperms
(D) Penetration of many sperms into an ovum simultaneously
- Which chemical of the egg attracts and holds sperm?
(A) Fertilizin (B) Antifertilizin
(C) Agglutin (D) Antiagglutin
- Choose the correct statements
(A) hPL plays a major role in parturition
(B) Foetus shows movements first time in the 7th month of pregnancy
(C) Signal for parturition comes from fully developed foetus and placenta
(D) Embryo's heart is formed by the 2nd month of pregnancy.
- The 'cells' of Rauber' are
(A) Inner cell mass of blastocoel
(B) Secretory cells of endometrium in uterus
(C) Outer cells of trophoblast in contact with uterus
(D) Cells of trophoblast, in contact with inner cell mass of blastocyst
- The changes in a mammalian sperm to prepare it to fertilize the ovum are termed as
(A) metamorphosis (B) capacitation
(C) maturation (D) preparation
- In human female the blastocyst
(A) Forms placenta even before implantation
(B) Gets implanted into uterus 3 days after ovulation
(C) Gets nutrition from uterine endometrial secretion only before implantation
(D) Gets implanted in endometrium by trophoblast cells
- What is implanted in the uterus ?
(A) Morula (B) Neurula (C) Gastrula (D) Blastocyst
- Commonly used "Pregnancy test at home" detects -
(A) hCG in female urine (B) Estrogen in female urine
(C) hCG in female blood (D) Estrogen in female blood
- In embryo, cleavage brings about -
(A) Increased DNA content (B) Increased mass of protoplasm
(C) Increased size (D) Change in shape and size

DPP No. : 09
CHAPTER-HUMAN REPRODUCTION

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION D : Fertilization and Embryonic development

1. A morula can be differentiated from blastula in-
(A) Presence of cavity (B) Presence of more yolk
(C) Presence of yolk (D) Absence of cavity
2. If ovaries of a pregnant mammal are removed during first trimester of gestation period
(A) The embryonic development will stop (B) Embryo will regenerate
(C) Development remains unaffected (D) Ovaries will regenerate
3. The attachment of the mammalian blastocyst to the uterine wall is
(A) Incest (B) Implantation (C) Intromission (D) Incorporation
4. Blastocyst is a modified blastula of
(A) Placental mammals (B) Frog
(C) Fish (D) Birds
5. The organ that provides mechanical protection and nutritional support for the developing embryo is the
(A) Vagina (B) Uterine tube (C) Ovary (D) Uterus
6. Morula is a developmental stage
(A) Between the zygote and blastocyst (B) Between the blastocyst and gastrula
(C) After the implantation (D) Between implantation and parturition
7. Which one of the following statements with regard to embryonic developments in humans is correct?
(A) Cleavage divisions bring about considerable increase in the mass of protoplasm
(B) In the second cleavage division, one of the two blastomeres usually divides a little sooner than the second
(C) With more cleavage divisions, the resultant blastomeres become progressively larger
(D) Cleavage divisions result in the formation of hollow ball of cells or morula
8. Which of the following hormones is not secreted by human placenta?
(A) hCG (B) Estrogens (C) Progesterone (D) LH
9. Which of the following can pass through the placenta into the foetus
(A) Bacteria of syphilis (B) Thalidomide
(C) Virus of German measles (D) All of the above
10. Progesterone production does not fall during
(A) lactation (B) menopause (C) gestation (D) menstruation

DPP No. : 10
CHAPTER-HUMAN REPRODUCTION

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION D : Fertilization and Embryonic development

1. Amnion is a membrane which develops on the outside of embryo. Which statement is true about this ?
(A) Never participates in placenta formation, secretes fluid
(B) Participates in placenta formation, synthesizes RBC.
(C) Never participates in placenta formation, synthesizes RBC.
(D) None of these
2. Role of placenta is to
(A) Provide nutrition to developing embryo (B) Endocrine gland
(C) Act as storage organ (D) All of these
3. Correct sequence in cleavage, zygote, fertilization, gastrula, blastula :
(A) 3, 1, 2, 5, 4 (B) 3, 2, 1, 4, 5 (C) 3, 2, 1, 5, 4 (D) 1, 3, 2, 4, 5
4. Human embryo will be called as ' foetus' after
(A) Two months (B) Six months (C) Four months (D) Seven months
5. Gestation period in human beings is :
(A) 112 - 120 days (B) 145 - 155 days (C) 600 - 640 days (D) 270 - 290 days
6. The 16 cells stage in human embryo is:
(A) Smaller than the fertilized egg (B) Same size as fertilized egg
(C) Two times of the size of the fertilized egg (D) Four times of the size of the fertilized egg
7. Which of the following induces parturition?
(A) GH (B) TSH (C) Oxytocin (D) Vasopressin
8. hCG and hPL are produced in woman:
(A) before puberty (B) during menstruation
(C) at the time of puberty (D) Only during pregnancy
9. Totipotency found in
(A) Inner cell mass (B) Cells of Rauber
(C) Trophoblast cells (D) All of these
10. Limb formation starts in
(A) 2nd Month of pregnancy (B) 3rd Month of pregnancy
(C) 4th Month of pregnancy (D) 5th Month of pregnancy

DPP No. : 11
CHAPTER-REPRODUCTIVE HEALTH

Total Marks : 60
Single choice Objective

Max. Time : 15 min.
(4 marks 1 min.)

1. Which of the following is true about "Saheli"?
(A) Developed by CDRI, Lucknow
(B) Made up of Non-steroid Substance CENTCHROMANE
(C) Once a week pill
(D) All of the above
2. Natural method of contraception is not among the following -
(A) Periodic abstinence
(B) Coitus interruptus
(C) Lactation Amenorrhea
(D) Implants
3. Multiload -375 is
(A) a Cu⁺² releasing IUD
(B) Hormone releasing IUD
(C) a progestasert
(D) a Non-Medicated IUD
4. A contraceptive is
(A) Condom, cervical cap and diaphragm
(B) IUD
(C) Pill
(D) All of the these
5. An IUD is
(A) Condom
(B) CuT
(C) Vasectomy
(D) All of these
6. Depo-Provera refers to
(A) Oral contraceptive
(B) Injectable contraceptive
(C) Intrauterine device
(D) Implant contraceptive
7. Government of india legalised MTP in 1971 with some strict conditions to avoid its misuse. The true statement regarding M.T.P is/are
(A) It is considered as illegal in the case of female foeticide
(B) It is legally used in rape cases
(C) It is considered as legal method if pregnancy is harmful or fatal to mother or foetus or both.
(D) All
8. Medical termination of pregnancy (MTP) means or definition of MTP is
(A) Induced abortion only
(B) Intentional or voluntary termination of pregnancy only
(C) Any abortion
(D) Both (A) and (B)
9. What is true about MTP?
(A) Relatively safe during first trimester (12 weeks of pregnancy)
(B) Second trimester abortion is risky.
(C) This doesn't support female foeticide
(D) All
10. In which year medical termination of pregnancy (MTP) act was passed by Indian government
(A) 1951
(B) 1961
(C) 1971
(D) 1981
11. Read the statements carefully.
a. Most of STDs are completely curable if detected early and treated properly except AIDS.
b. Early common symptoms of most of STDs are minor and include itching, fluid discharge, swelling, slight pain, in the genital region.
c. STDs are reported to be very high among persons of 15-24 year age group
d. Gonorrhoea and Syphilis are bacterial STDs
e. Genital herpes and Trichomoniasis are viral and protozoon STDs respectively

The true statements are.

- (A) a and c (B) a, c, e (C) a, b, e (D) a, b, c, d and e

12. The technique called gamete intrafallopian transfer (GIFT) is recommended for those females:
(A) who cannot produce an ovum
(B) who cannot retain the foetus inside uterus.
(C) whose cervical canal is too narrow to allow passage for the sperms
(D) who cannot provide suitable environment for fertilisation
13. Inability to conceive or produce child even after 2 year of unprotected sexual cohabitation is called
(A) Sterility (B) Fertility (C) Infertility (D) Inability
14. The progesterone, an important component of oral contraceptive pills, prevents pregnancy by
(A) creating unfavourable chemical environment for the sperms to survive in the female reproductive tract
(B) preventing the formation of ova
(C) inhibiting ovulation
(D) preventing the cleavage of fertilized egg
15. Some statements are given for Saheli a new oral contraceptive. Choose the correct statements
(i) It is a non steroidal preparation
(ii) It is developed by CDRI (Central Drug Research Institute) Lucknow.
(iii) Blocks estrogen receptors in the uterus preventing eggs from getting implanted
(iv) It is taken twice a week
(v) It has high contraceptive value with high side effects
(A) (i) (ii) (iii) (iv) (B) (i) (ii) (iii) (iv)
(C) (i) (ii) (iii) (D) (i) (iii) (iv)

DPP No. : 12
CHAPTER- EVOLUTION

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION A : Origin of life

1. Evolution of life shows that life forms had a trend of moving from:
(A) land to water (B) dry land to wet land
(C) fresh water to sea water (D) water to land
2. The earliest prokaryotes must have been
(A) photoautotrophs (B) chemoautotrophs
(C) chemoheterotrophs (D) lipotrophs
3. The first organisms to give off oxygen gas were probably the
(A) methanogens (B) cyanobacteria
(C) anaerobic chemoautotrophs (D) Euglena
4. Which of the following is most important for origin of life?
(A) Oxygen (B) Water (C) Nitrogen (D) Carbon
5. Big-Bang theory explains the origin of universe. Select the false statement regarding this
(A) Universe originated about 20 Billion years ago.
(B) Big-Bang relates to huge explosion
(C) The universe expanded and hence temperature came down.
(D) None
6. About how long ago was the earth originated
(A) 3.0 billion years ago (B) 10 billion years ago
(C) 4.6 billion years ago (D) 20 billion years ago
7. The theory which explains the origin of life and is based upon experiments is
(A) Biogenesis (B) Catastrophism (C) Abiogenesis (D) Chemical theory
8. Oparin's theory of origin of life is based on
(A) Chemical evolution (B) cosmic evolution (C) artificial synthesis (D) organic evolution
9. Which one is present today but was absent about 3500 million years ago?
(A) N₂ (B) O₂ (C) H₂ (D) CH₄
10. Finding of Miller's experiment on origin of life has provided evidence for
(A) Theory of biogenesis (B) Oparin- haldane theory
(C) Theory of special creation (D) Theory of organic evolution

DPP No. : 13
CHAPTER- EVOLUTION

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION A : Origin of life

- Miller synthesized simple amino acid from one of the following mixture in an experiment:
(A) H_2, O_2, N_2 (1 : 2 : 1) and water vapour (B) H_2, O_2, N_2 (2 : 1 : 2) and water vapour
(C) CH_4, NH_3, H_2 (2 : 1 : 2) and water vapour (D) CH_4, NH_3, H_2 (1 : 2 : 1) and water vapour
- Life cannot originate from inorganic material at present because of
(A) Absence of raw material (B) Very low atmospheric temperature
(C) High degree of environmental pollution (D) Very high amount of oxygen in atmosphere
- Coacervates
(A) Are Colloidal droplets (B) Contain nucleoprotein
(C) Both (A) and (B) (D) First cell
- Which one is the most essential for origin of life?
(A) Enzymes (B) Proteins (C) Carbohydrates (D) Nucleic acids
- An important compound in prebiotic evolution was
(A) SO_2 (B) CH_4 (C) SO_3 (D) NO
- According to some Greek thinkers life on earth was originated or came from
(A) Spores of life transferred to different planets including earth.
(B) Units of life called spores or pangenes are transferred from one planet to another.
(C) Life came out of decaying matter like mud.
(D) All
- Spark chamber of Miller contained -
(A) CH_4, NH_3 , and H_2
(B) Water vapour and CO_2
(C) Two tungsten electrodes producing $800^\circ C$ temperature and CH_4, NH_3, H_2 , water vapour.
(D) None
- Coacervates are made up of-
(A) Protein only (B) Carbohydrate only
(C) Protein & Carbohydrate (D) Protein & Nucleic acid
- Theory of abiogenesis or spontaneous generation was finally disapproved by
(A) Louis Pasteur (B) A.I. Oparin (C) A.R. Wallace (D) Sidney Fox

SECTION B : Evidences of evolution

- The bones of forelimbs of whale, bat, cheetah and man are similar in structure, because:
(A) one organism has given rise to another (B) they share a common ancestor
(C) they perform the same function (D) they have biochemical dissimilarities

DPP No. : 14
CHAPTER- EVOLUTION

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION B : Evidences of evolution

- Analogous organs arise due to:
(A) divergent evolution (B) artificial selection
(C) genetic drift (D) convergent evolution
- Fossils are generally found in:
(A) Sedimentary rocks (B) Igneous rocks
(C) Metamorphic rocks (D) Any type of rock
- Which of the following is an example for link species?
(A) Lobe fish (B) Dodo bird (C) Sea weed (D) Tyrannosaurus rex
- Arrange the periods of palaeozoic era in the ascending order in a geological time scale
(A) Cambrian → Ordovician → Silurian → Devonian → Carboniferous → Permian
(B) Cambrian → Devonian → Ordovician → Silurian → Carboniferous → Permian
(C) Cambrian → Ordovician → Devonian → Silurian → Carboniferous → Permian
(D) Silurian → Devonian → Cambrian → Ordovician → Permian → Carboniferous
- The early stage human embryo distinctly possesses
(A) Gills (B) Gill slits
(C) External ear (D) Eye brows
- Palaentological evidences for evolution refer to the
(A) development of embryo (B) homologous organs
(C) fossils (D) analogous organs.
- Which type of selection is industrial melanism observed in moth, *Biston bitularia* ?
(A) Stabilising (B) Directional
(C) Disruptive (D) Artificial
- Match the columns.

Column I		Column II	
i	Darwin	1	Use and disuse theory
ii	Lamarck	2	Origin of species
iii	Hugo de Vries	3	Origin of life
iv	A I Oparin	4	Mutation theory

- (A) i → 2, ii → 1, iii → 4, iv → 3 (B) i → 1, ii → 2, iii → 3, iv → 4
(C) i → 2, ii → 3, iii → 4, iv → 1 (D) i → 4, ii → 1, iii → 2, iv → 3
- Variations during mutations of meiotic recombinations are?
(A) random and directionless (B) random and directional
(C) random and small (D) random, small and directional
 - The process of genetic drift is more rapid in
(A) Large isolated population (B) Small isolated population
(C) Fast reproductive population (D) Slow reproductive population

DPP No. : 15
CHAPTER- EVOLUTION

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION B : Evidences of evolution

1. Haeckel's biogenetic law or recapitulation theory states that
(A) Life history of an animal reflects evolutionary history of the same species
(B) Progeny resembles parents
(C) Mutilations are acquired characters
(D) All organisms begin their life from zygote
2. Amphibians evolved from fish in the class?
(A) Agnatha (B) Placodermi
(C) Chondrichthyes (D) Osteichthyes
3. Which of the following structures of a fish is homologous with the lung of a frog?
(A) Gill pouch (B) Swim bladder
(C) Stomach (D) Book lungs
4. Reptilian ancestors of dinosaurs, crocodiles and birds were the
(A) therapsids (B) thecodonts (C) pterosaurs (D) plesiosaurs
5. Reptilian ancestors of mammals were the
(A) therapsids (B) thecodonts (C) pterosaurs (D) plesiosaurs
6. Homologous organs are
(A) Wings of Pigeon and Butterfly (B) Wings of Pigeon and Housefly
(C) Wings of Pigeon and arms of Humans (D) Wings of Bat, Housefly and Butterfly
7. Your arm is homologous to
(A) Wing of a bird (B) Flipper of a seal
(C) Tentacle of Octopus (D) Both (A) and (B)
8. Eyes of an Octopus and mammals appear quite similar, but these are different in their basic structure and origin, hence they are:
(A) Ancestral organs (B) Analogous organs
(C) Homologous organs (D) Both homologous and analogous organs
9. What are vestigial organs?
(A) Organs of many uses
(B) Organs of no use to the possessor
(C) Organs present in the ancestors but absent now
(D) Present in the recent origins but absent in ancestors
10. Which of the following is not a vestigial organ in man?
(A) Wisdom tooth (B) Ileum
(C) Vermiform appendix (D) Muscles of ear pinna

DPP No. : 16
CHAPTER- EVOLUTION

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION B : Evidences of evolution

1. Egg laying mammals and marsupials are found in Australia and nowhere else. This indicates :
(A) Natural barrier (B) Climatic barrier
(C) Continuous distribution (D) Discontinuous distribution
2. Homology does not refer to
(A) Divergent evolution (B) Common descent
(C) Convergent evolution (D) Adaptive radiation
3. The evidence for the origin of birds from reptiles is the presence of _____ in them
(A) Hairs (B) Claws (C) Scales (D) Feathers
4. Adaptive similarities in animals of the same habitat constitute
(A) Adaptive radiation (B) Parallel evolution
(C) Convergent evolution (D) Divergent evolution
5. A connecting link between two phyla is
(A) Archaeopteryx-Aves and Mammalia (B) Amphioxus - Echinodermata and Chordata
(C) Peripatus - Annelida and Arthropoda (D) Ornithorhynchus - Aves and Reptilia
6. Which of the following is a connecting link between mammals and reptiles?
(A) Balanoglossus (B) Ornithorhynchus
(C) Peripatus (D) Archaeopteryx
7. Which of the following is not atavistic in humans?
(A) Tail in some babies (B) Enlarged canines
(C) Six fingers (D) Dense body hair
8. Darwin's finches provide an excellent evidence in favour of organic evolution. These are related to which of the following evidences?
(A) Anatomy (B) Biogeography
(C) Embryology (D) Palaeontology
9. Tasmanian Wolf is a marsupial while Wolf is a placental mammal. This shows
(A) Convergent evolution (B) Divergent evolution
(C) Struggle for existence (D) Inheritance of acquired characters
10. Tendrils of Cucurbita and thorns of Bougainvillea are
(A) Homologous organs (B) Analogous organs
(C) Vestigial organs (D) Atavistic divergence

DPP No. : 17
CHAPTER- EVOLUTION

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION B : Evidences of evolution

- Archaeopteryx is a connecting link between
(A) Birds and mammals (B) Reptiles and birds
(C) Amphibians and reptiles (D) None of these
- Occurrence of higher number of endemic species in South America and Australia is due to
(A) Retrogressive evolution
(B) Continental separation
(C) These species have become extinct from other regions
(D) Absence of terrestrial links between these places
- Fossil X can be considered to have evolved earlier than fossil Y if
(A) Y has vestigial structures that are homologous to functional structures in fossil X
(B) Y is structurally more complex than fossil X
(C) Y is in better state of preservation than X
(D) Y is found in lower stratum of undisturbed sedimentary rock than X
- Which one of the following is a vestigial organ in man?
(A) Iris (B) Nasal epithelium
(C) Malleus (D) Ear Pinna muscles
- Analogous organs are
(A) Wings of bird and butterfly (B) Wings of bird and bat
(C) Limbs of horse and man (D) Teeth of man and Gorilla
- Which is a vestigial organ of Python?
(A) Nose (B) Scales
(C) Teeth (D) Hind limbs
- Which of the following is called living fossil?
(A) *Sphenodon* (B) *Limulus*
(C) *Peripatus* (D) All the above

SECTION C : Theories of evolution

- Appearance of antibiotic-resistant bacteria is an example of:
(A) adaptive radiation (B) transduction
(C) pre-existing variation in the population (D) divergent evolution
- Which of these was most influential in formulation of Natural selection theory by Darwin
(A) Malthus's essay on population (B) Inheritance of acquired characters
(C) Struggle for existence (D) Wallace's paper on survival
- A sudden and heritable change in a character of an organism was called as mutation by Hugo deVries while working on
(A) Evening primrose (B) *Neurospora*
(C) *Ascaris* (D) *Drosophila*

DPP No. : 18
CHAPTER- EVOLUTION

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION C : Theories of evolution

1. Which one of the following does not favour Lamarckian concept of inheritance of acquired characters?
(A) Lack of pigment in cave dwellers (B) Absence of limbs in snakes
(C) Presence of webbed toes in aquatic birds (D) Melanisation of peppered moth in industrial areas
2. Who believed that an organ in disuse will become vestigial?
(A) Lamarck (B) De Vries
(C) Mendel (D) Darwin
3. Galapagos islands are connected with which scientist
(A) Wallace (B) Lamarck
(C) Malthus (D) Darwin
4. Neo-Darwinism or Modern synthetic theory of evolution believes that new species develop through
(A) Mutations with natural selection (B) Continuous variations with natural selection
(C) Hybridisation (D) All of the above
5. Weismann cut off tails of mice generation after generation but tails neither disappeared nor shortened showing that
(A) Darwin was correct
(B) Tail is an essential organ
(C) Mutation theory is wrong
(D) Lamarckism was wrong about inheritance of acquired characters.
6. 'Survival of Fittest' was first used by
(A) Charles Darwin (B) Herbert Spencer
(C) Jean Baptiste Lamarck (D) Hugo de Vries
7. Presence of different types of beaks in finches of Galapagos islands adapted to different feeding habits provides evidence for
(A) Intraspecific variations (B) Natural selection
(C) Intraspecific competition (D) Artificial breeding
8. Natural selection theory was given by
(A) Lamarck (B) Hugo de Vries
(C) Malthus (D) Darwin

SECTION D : Miscellaneous

9. Viviparity is considered to be more evolved because:
(A) the young ones are left on their own
(B) the young ones are protected by a thick shell
(C) the young ones are protected inside the mother's body and are looked after they are born leading to more chances of survival
(D) the embryo takes a long time to develop
10. $(p+q)^2 = p^2 + 2pq + q^2 = 1$ represents an equation used in
(A) population genetics (B) mendelian genetics
(C) biometrics (D) molecular genetics

DPP No. : 19
CHAPTER- EVOLUTION

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION D : Miscellaneous

1. For the MN-blood group system, the frequencies of M and N alleles are 0.7 and 0.3, respectively. The expected frequency of MN-blood group bearing organisms is likely to be
(A) 42% (B) 49% (C) 9% (D) 58%
2. What is correct formulation for Hardy-Weinberg law?
(A) $p^2 + 2pq + q^2 = 1$ (B) $p^2 + pq + q^2 = 1$ (C) $p^2 + 2pq + q^2 = 0$ (D) $p^2 + pq + q^2 = 0$
3. When a primitive bacterium is exposed to oxygen gas, it
(A) becomes activated (B) makes and stores ATP
(C) synthesized glycogen (D) dies
4. Process of evolution
(A) is discontinuous
(B) was discontinuous in the past but continuous presently
(C) was continuous in the past but discontinuous presently
(D) is continuous
5. Basic idea of evolution is
(A) Cosmic evolution (B) Special creation
(C) Spontaneous generation (D) Decent with Modification
6. Diversity of living organisms is due to
(A) Mutation (B) Gradual changes
(C) Long term evolutionary change (D) Short term evolutionary change
7. The evolution of numerous species, such as Darwin's finches from a single ancestor is called:
(A) Gradualism (B) adaptive radiation
(C) sympatric speciation (D) Geographical isolation
8. Evolutionary history of an organism is known as
(A) Ancestry (B) Ontogeny
(C) Phylogeny (D) Palaeontology
9. Mammals like Whale, Dolphin, Bat, Monkey and Horse have some common characters but also show conspicuous differences. This is due to phenomenon of
(A) Divergence (B) Convergence
(C) Genetic drifts (D) Normalization
10. Which of the following organisms alive today is likely to be most similar to the first life forms that evolved on the earth?
(A) Archaeobacteria (B) Cyanobacteria
(C) Algae (D) Dinosaurs

DPP No. : 20

CHAPTER- HUMAN HEALTH & DISEASE

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION A : Introduction

- 'Pathogens' are
(A) Substances produced against any disease causative agent
(B) Chemical substances produced by the host cells to kill the parasite animal
(C) Disease causing factors
(D) Cells which kill the parasites
- What are needed for good health?
(A) Balanced diet
(B) Healthy air
(C) Hygiene
(D) All of these
- External factors responsible to produces disease is –
(A) virus
(B) cocaine
(C) hashish
(D) all of these

SECTION B : Viral Disease

- Which one is a viral disease?
(A) Syphilis
(B) Measles
(C) Rickets
(D) Beri-beri
- Choose the wrong statement
(A) HIV virus has RNA as its genetic material
(B) HIV virus replicates in T_H lymphocytes
(C) Anti-retroviral drugs are only partially effective for AIDS treatment
(D) The time-lag between the infection and appearance of AIDS symptom may vary from few hours to a week

SECTION C : Bacterial Disease

- Lysozme kills bacteria by destroying
(A) Cell walls
(B) Mitochondria enzymes
(C) Lipid bilayers
(D) the machinery for DNA replication
- Most bacteria ingested with food are killed by
(A) Cilia and mucus on the lining of the tract
(B) stomach acids
(C) the intrinsic factor in the stomach
(D) bile in the small intestine
- Out of the following diseases which are caused due to bacterial infection ?
A. Typhoid
B. Elephantiasis
C. Cholera
D. Tuberculosis
(A) A, B
(B) B, C
(C) A, C, D
(D) A, B, C, D
- If you are advised to get a WIDAL test done for yourself-which disease is your doctor suspecting?
(A) Typhoid
(B) Cholera
(C) Pneumonia
(D) Filariasis
- A disease which often produces deformities of fingers and toes is
(A) Poliomyelitis
(B) Tuberculosis
(C) Typhoid
(D) Leprosy

DPP No. : 21

CHAPTER- HUMAN HEALTH & DISEASE

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION C : Bacterial Disease

1. Leprosy is diagnosed by which of the following set of symptoms
(A) Fever, loss of pigmentation
(B) Deformity of fingers, scales, ulcers, loss of pigmentation, wasting of body parts
(C) Frequent watery stools and deformities in fingers and toes
(D) White spots on the skin without any scales or ulcer
2. Vaginal bacterial symbionts like *Lactobacillus* prevents pathogen by
(A) producing lactic acid there by reducing pH
(B) Secreting antibiotics
(C) Secreting toxins
(D) None of these

SECTION D : Protozoal Disease

3. Which stage of Plasmodium parasite is infective for man?
(A) Schizont (B) Gametocytes (C) Sporozoite (D) Merozoites
4. Malarial parasites could be best obtained from a patient
(A) An hour before rise of temperature
(B) When temperature rises with rigor
(C) When temperature comes to normal
(D) Few hours after the temperature reaches to normal
5. Kala azar is caused and transmitted respectively by
(A) *Leishmania* and *Phlebotomus* (B) *Trypanosoma* and sand fly
(C) *Leishmania* and tse-tse fly (D) *Trypanosoma* and *Glossina palpalis*
6. Haemozoin is a toxic substance formed in case of malaria. It is produced by
(A) Globin protein of RBC (B) Colour pigment of RBC
(C) Dead WBC (D) Cryptozoites

SECTION E : Helminthes Disease

7. Elephantiasis is caused by
(A) *Ascaris* (B) *Taenia* (C) *Wuchereria* (D) *Entamoeba*
8. Filaria is transmitted by
(A) Male anopheles (B) Male culex (C) Female anopheles (D) Female culex

SECTION F : Immune System

9. Which one of the following diseases is due to an allergic reaction?
(A) Enteric fever (B) Hay fever (C) Skin cancer (D) Goitre
10. The term acquired immunity refers to
(A) the combined actions of all the white blood cells
(B) events that occur within the lymphatic system
(C) general defense between all microorganisms
(D) specific defense against microbes encountered during an earlier exposure

DPP No. : 22

CHAPTER- HUMAN HEALTH & DISEASE

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION F : Immune System

- Messenger molecules, released by virus-infected cells, that bind to the surfaces of healthy cells and stimulate them to synthesize proteins that prevent viral reproduction are called
(A) interferons (B) antibiotic (C) cytotoxins (D) lymphokines
- The major phagocytic cells are
(A) lymphocytes (B) mast cells (C) plasma cells (D) macrophages
- The term 'active immunity' means
(A) increasing rate of heart beat (B) increasing quantity of blood
(C) resistance developed after disease (D) resistance developed before disease
- The treatment of snake-bite by antivenom is an example of
(A) artificially acquired active immunity (B) artificially acquired passive immunity
(C) naturally acquired active immunity (D) specific natural immunity
- Which one of the following provides non-specific pathogen defence for the body?
(A) T-cells (B) B-cells (C) phagocytes (D) stem cells
- An example of innate immunity is
(A) PMNL – Neutrophils (B) T-lymphocytes
(C) B – lymphocytes (D) T_H cells
- Which one of the following acts as physiological barrier to the entry of microorganisms in human body?
(A) Skin (B) Epithelium of Urogenital tract
(C) Tears (D) Monocytes
- Name of the factors which do not allow pathogens to enter the body –
(A) physiological barrier (B) anatomical barrier
(C) Inflammatory barrier (D) all of these
- Which of the following will be included under innate immunity?
(A) Mucus membrane (B) Interferon
(C) Natural killer cells (D) All of these
- Which of the following is not true for interferon ?
(A) These act outside the cells (B) These are quick acting
(C) Their action is long lasting (D) These act against viruses

DPP No. : 23

CHAPTER- HUMAN HEALTH & DISEASE

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION F : Immune System

1. Natural killer (NK) cells can destroy
(A) Invading micro-organisms (B) Virus infected cells
(C) Some tumor cells (D) All of these
2. Antiserum is
(A) Serum which contains lymphocytes (B) Serum which contains red cells
(C) Serum containing thrombocytes (D) Serum containing antibody
3. A kind of allergy is
(A) Asthma (B) Yellow eyes (C) Typhoid (D) Mumps
4. Non-specific host defense that exist prior to exposure to an antigen is called
(A) Acquired immunity (B) Innate immunity
(C) Adaptive acquired immunity (D) All of these
5. Innate immunity is also called
(A) familial (B) genetic (C) inborn (D) all
6. Innate immunity involves all except?
(A) Anatomical barrier (B) Phagocytic
(C) Inflammatory mechanisms (D) antibody production
7. Skin prevent pathogen entry by ?
(A) dead cells of skin outer layer prevents the entry of pathogen
(B) skin secretes oil by sebaceous gland
(C) Skin secretes sweat by sudoriferous gland
(D) All of these
8. Which of the following does not protect body surfaces?
(A) Skin (B) Mucus (C) Gut microbes (D) Salivary amylase
9. Which of the following are not phagocytes?
(A) Dust cell (B) Monocyte (C) microglia (D) Plasma cell
10. Opsonisation is carried out by
(A) IgM (B) IgD (C) IgA (D) IgD and IgE

DPP No. : 24

CHAPTER- HUMAN HEALTH & DISEASE

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION F : Immune System

1. Antigen & foreign substances recognized by—
(A) Macrophages (B) T- cells (C) B-cells (D) All
2. Naturally acquired passive immunity results from
(A) A bee sting (B) Immunization (C) A flu shot (D) Placental transfer
3. Which of these is not a non-specific defense mechanism?
(A) Lysozyme (B) Stomach pH (C) Antibodies (D) Skin sebaceous gland
4. Active immunity may be produced by
(A) Contracting a disease (B) Receiving a vaccine
(C) Receiving gamma globulin injection (D) (A) & (B) both
5. AIDS disease was first reported in
(A) Russia (B) USA (C) Germany (D) France
6. Artificial immunity can be acquired from a
(A) Serious illness (B) Vaccination
(C) Repeated exposure to the same microbe (D) Treatment with penicillin
7. An autoimmune disease is
(A) Rheumatoid arthritis (B) Multiple sclerosis
(C) Insulin dependent diabetes mellitus (Idm) (D) All of these
8. Colostrum provides the infant with
(A) Auto immunity (B) Passive immunity (C) Active immunity (D) innate immunity
9. The immunoglobulin present in mother's milk is
(A) IgD (B) IgE (C) IgM (D) IgA
10. The most modern technique of vaccine preparation is
(A) Extraction of antigens from pathogens
(B) Multiplication of antigens through rDNA technique
(C) Weakening of pathogen through chemical treatment
(D) Attenuation of pathogen through heat.

DPP No. : 25

CHAPTER- HUMAN HEALTH & DISEASE

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION F : Immune System

1. Interferon is proteins that
(A) Inactivates a virus
(B) Protects unaffected cells from virus
(C) Prevents viruses from taking over the cellular machinery
(D) All the above
2. Which of the following properties of acquired immunity is the basis of vaccination?
(A) Specificity
(B) Diversity
(C) Memory
(D) Discrimination between self and nonself
3. B-lymphocytes are
(A) Formed in bone marrow
(B) Preprocessed in bone marrow
(C) Preprocessed in liver
(D) Both (A) and (B)
4. T- lymphocytes are
(A) Formed in thymus
(B) Formed in bone marrow and preprocessed in thymus
(C) Formed in thymus and preprocessed in bone marrow
(D) Formed and preprocessed in bone marrow
5. Antibody which mediates allergic response is
(A) IgA
(B) IgD
(C) IgE
(D) IgM
6. Characters of acquired immunity are
(A) Specificity of antigen
(B) Difference between self & non-self
(C) Retains memory
(D) All of these
7. Humoral immunity is due to formation of immunoglobulins by
(A) B-lymphocytes
(B) T-lymphocytes
(C) Neutrophils
(D) Basophils
8. Which cell of immune system cause perforin linked pore formation at the surface of the plasma membrane of target cells
(A) Helper T-cell
(B) NK-cell
(C) Suppressor T-cell
(D) B-cell
9. What is the process, in which antibody comes in contact with antigen and convert them in harmless insoluble matter ?
(A) Activation
(B) Agglutination
(C) Immunization
(D) Opsonization
10. IgE is
(A) Most abundant in body
(B) Present in colostrum
(C) Antibody mediating allergy
(D) None of the above is true

DPP No. : 26

CHAPTER- HUMAN HEALTH & DISEASE

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION F : Immune System

- Antibodies are a part of a protein called globulin which is present in the
(A) Stroma of RBC (B) Haemoglobin of RBC
(C) Plasma (D) Blood platelets
- The term 'active immunity' means
(A) Resistance developed after disease (B) Resistance developed before disease
(C) Resistance rate of heart beat (D) Increasing quantity of blood
- What is introduced in polio vaccination?
(A) Antibodies (B) Antigen
(C) Antibiotics (D) Bacteriostatic agent
- Inflammatory response in allergy is caused by the release of one of the following by mast cells
(A) Histamines (B) Antibodies
(C) Antigen (D) None of them
- Passive immunity is defined as immunity
(A) Inherited from the parents through genes
(B) Achieved through vaccination
(C) Acquired through first exposure to the disease
(D) Achieved through the sera of other animals rich in antibodies
- Column I lists the components of body defense and column II lists the corresponding descriptions. Match the two columns. Choose the correct option from those given

Column I		Column II	
A	Active natural immunity	p	Injection of gamma globulins
B	First line of defense	q	Complement proteins and interferons
C	Passive natural immunity	r	Direct contact with the pathogens that have entered inside
D	Second line of defense	s	Surface barriers
		t	Antibodies transferred through the placenta

- (A) A → s, B → r, C → t, D → q
(B) A → r, B → s, C → q, D → t
(C) A → r, B → s, C → t, D → q
(D) A → t, B → r, C → q, D → p
- Allergens are
(A) Infectious and increase secretion of IgE (B) Non-infectious and increase secretions of IgE
(C) Infectious and increase secretion of IgG (D) Non-infectious and increase secretion of IgM
 - AIDS is a
(A) Cancer (B) Virus borne disease
(C) Bacterial disease (D) Deficiency disease
 - Which of the following diseases is known as auto immune thyroiditis/thyroid's suicide?
(A) Addison's disease (B) Cretinism
(C) Hashimoto disease (D) Goitre
 - Choose the wrong statement regarding AIDS
(A) AIDS is an immunodeficiency disease
(B) It is caused by a retrovirus, HIV

- (C) HIV selectively infects and kill B-lymphocytes
(D) Retroviruses have RNA genomes that replicate via DNA intermediate

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DPP No. : 27

CHAPTER- HUMAN HEALTH & DISEASE

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION F : Immune System

1. Expand ELISA
(A) Enzyme linked immunosorbent assay (B) Enzyme linked ion sorbent assay
(C) Enzyme linked inductive assay (D) None of the above
2. HIV causes reduction in
(A) T-helper cells only (B) All T-cells
(C) B-cells only (D) Both B and T-cells
3. Person who takes drug by injection into the vein are more likely to suffer from
(A) Hepatitis B (B) Headache
(C) Diabetes (D) Hypertension

SECTION G : Cancer

4. 'Blood cancer' is also known as
(A) Leucopenia (B) Leucoderma
(C) Leucocytosis (D) Leukemia
5. The process of spreading the cancerous cells to distant site is known as
(A) Hyperstasis (B) Metastasis
(C) Parastasis (D) Parasitosis
6. Chemicals, which can induce cancer are called
(A) Mutagenic agents and produce benign tumour
(B) Carcinogens and produce non-malignant tumour
(C) Mutagenic agents and do not produce malignant tumour
(D) Carcinogens and produce malignant tumour
7. Cell division or mitosis is a normal process in a living cell, but sudden and abnormal mitosis in an organ will frequently result in a
(A) Zygote (B) Gastrula
(C) New organ (D) Cancer
8. Cancer cells are characterized by
(A) Uncontrolled growth (B) Invasion of local tissue
(C) Spreading to other body parts (D) All the above
9. Benign tumour is the one which
(A) Shows metastasis (B) Differentiated and capsulated
(C) Undifferentiated and noncapsulated (D) Differentiated and noncapsulated
10. Which disease is caused by activation of oncogenes
(A) Cholera (B) Cancer
(C) T.B. (D) Viral flu

DPP No. : 28

CHAPTER- HUMAN HEALTH & DISEASE

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION G : Cancer

1. Arthritis is the disease of
(A) Inflammation of abdomen (B) Inflammation of joints
(C) Inflammation of liver (D) Inflammation of neck
2. Gouts, a painful disorder of joints is due to
(A) Damage caused to ligaments (B) Injury to tendon
(C) Inflammation of synovial membrane (D) Deposition of uric acid at joints

SECTION H : Tobacco

3. Tobacco smoke contains carbon monoxide which
(A) Reduces the oxygen-carrying capacity of blood
(B) Causes gastric ulcers
(C) Raises blood pressure
(D) Is carcinogenic
4. Smoking causes following lung disease
(A) Cancer (B) Emphysema (C) Bronchitis (D) All of the above

SECTION I : Alcohol

5. A person who is addict of alcohol gets his liver destroyed because
(A) Liver stores excess of glycogen (B) Liver stores excess of starch
(C) Liver stores excess of protein (D) Liver stores excess of fat
6. Driving after drinking is not advised because due to intoxication
(A) Reaction time delays (B) Judgement and co-ordination disturbs
(C) Affect behaviour and vision (D) All of the above
7. Ethyl alcohol changes in body to
(A) Acetophenone (B) Acetaldehyde (C) Formic acid (D) Carbaldehyde
8. Liver disease occurring because of alcohol intake
(A) Cirrhosis (B) Kyphosis (C) Cheilosis (D) Gout

SECTION J : Drug Abuse

9. Opiate narcotic drugs are
(A) Antianxiety (B) Analgesic
(C) Stimulant (D) Antihistamine
10. Hallucinogens are :
(A) Are nerve depressants (B) Are nerve stimulants
(C) Alter thoughts, feelings and perceptions (D) Are pain relievers

DPP No. : 29

CHAPTER- HUMAN HEALTH & DISEASE

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION J : Drug Abuse

1. Heroin is
(A) Diacetyl morphine (B) Triacetyl morphine
(C) Tetra acetyl morphine (D) Mono acetyl morphine
2. Amnesia is
(A) Loss of memory (B) Loss of filtration capacity of kidney
(C) Loss of appetite (D) Loss of blood
3. Sleep is prevented by
(A) Barbiturates (B) Benzodiazepines
(C) Amphetamines (D) Psilocybin

SECTION K : Miscellaneous

4. The disease due to inflammation of vermiform appendix of the digestive system is known as
(A) Amoebic dysentery (B) Appendicitis
(C) Intestinal cancer (D) Appendectomy
5. The main reason why antibiotics could not solve all the problems of bacteria mediated diseases is
(A) Insensitivity of the individual following prolonged exposure to antibiotics
(B) Inactivation of antibiotics by bacterial enzymes
(C) Decreased efficiency of the immune system
(D) The development of mutant strains resistant to antibiotics
6. *Aedes aegypti* is a vector of
(A) Both dengue and yellow fever (B) Dengue fever
(C) Yellow fever (D) Japanese encephalitis
7. What is the role of complement in body's defense—
(A) it interferes with viral replication (B) it is involved with antibody production
(C) it aids in antigen presentation (D) it causes cell lysis
8. Match the following bacteria with the diseases and choose the correct option

Column I	Column II
(A) <i>Treponema pallidum</i>	1 Plague
(B) <i>Yersinia pestis</i>	2 Anthrax
(C) <i>Bacillus anthracis</i>	3 Syphilis
(D) <i>Vibrio</i>	4 Cholera
(A) A-1, B-3, C-2, D-4	(B) A-3, B-1, C-2, D-4
(C) A-2, B-3, C-1, D-4	(D) A-4, B-3, C-1, D-2
9. Why do tissues swell during inflammation?
(A) Because of the volume of bacteria present in the wound,
(B) Because of the number of blood cells attacking the bacteria
(C) Because of the increased permeability of capillaries causes fluids to accumulate in the area
(D) Due to pus accumulation
10. Identify the false statement—
(A) Tears contain lysozyme that can destroy bacteria
(B) Inflammation is a non-specific defense mechanism that is caused by any cell damage
(C) Mucous membranes provide a barrier to infection mainly because of their phagocytic properties
(D) A clone is group of cells with identical genetic properties

DPP No. : 30
CHAPTER- HUMAN HEALTH & DISEASE

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION K : Miscellaneous

- Cholera, leprosy and diptheria are
(A) Bacterial diseases (B) Viral diseases
(C) Fungal diseases (D) Functional diseases
- Find the incorrect pair out
(A) *Culex* – malaria (B) *Xenopsylla* – plague
(C) *Aedes* – yellow fever (D) *Phlebotamus* – kala-azar
- Common cold is not cured by antibiotics because it is
(A) Caused by a Gram-negative bacterium (B) Not an infectious disease
(C) Caused by a virus (D) Caused by a Gram-positive bacterium
- A person may die after getting a bee sting in his body due to
(A) Toxicity (B) Coagulation of blood
(C) Anaphylactic shock (D) Toxicity and coagulation of blood
- Match elements of Column I & Column II.

Column I		Column II	
i	Lymphoid organ	A	Deficiency of adenosine deaminase
ii	SCID	B	Grafting between organisms of different species
iii	Xenograft	C	Spleen, Bone marrow
iv	Opsonization	D	Humoral immunity
		E	Coating of bacteria

- (A) i → A, ii → B, iii → C, iv → D
(B) i → C, ii → B, iii → A, iv → E
(C) i → C, ii → A, iii → B, iv → E
(D) i → E, ii → C, iii → A, iv → D
- Study of interaction of antigens and antibodies in the blood is
(A) Cryobiology (B) Serology
(C) Haematology (D) Angiology
 - Which of the following pair is wrong?
(A) Immunity against cancer cell : By cell mediated Immunity
(B) Immunity induced by vaccination : Artificial active immunity
(C) Diapedesis : Movement of WBC through endothelium
(D) Myasthenia gravis : Autoantibodies against thyroid antigens
 - Which of the following organisms is known to form abscesses in human liver, lungs, brain etc.
(A) *Entamoeba histolytica* (B) *Monocystis*
(C) *Plasmodium* (D) *Fasciola hepatica*
 - Cyanosis refers to
(A) Bluish colouration of the body (B) Reddish colouration of the body
(C) Pale colouration of the body (D) Goose flesh of the body
 - Kwashiorkar disease develops due to
(A) Malnutrition (B) Over-eating
(C) Catalysis (D) Mutation

DPP No. : 31
CHAPTER-ANIMAL HUSBANDRY

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

1. Livestock refers to
(A) Pet animals
(B) Poultry and pet animals
(C) Domestic animals which are kept for use or profit
(D) None of the above
2. Mule is a product of
(A) Breeding (B) Mutation (C) Out crossing (D) Interspecific hybridisation
3. Super-ovulation and embryo transplantation are meant for improving
(A) Human race (B) Livestock (C) Poultry (D) Plants
4. Artificial breeding of cattle is brought about by
(A) Artificial insemination (B) Superovulation and embryo transplantation
(C) Homozygotic twinning (D) All the above
5. Cryopreservation is
(A) Preservation of living being in chemicals (B) Preservation at very low temperature
(C) Preservation through exposure to irradiation (D) Preservation through use of gases
6. The fermenting agent of dosa and idli is
(A) *Saccharomyces cerevisiae* (B) *Leuconostoc mesenteroides*
(C) *Streptococcus faecalis* (D) Both (B) and (C)
7. Which of the following has been recently used for increasing productivity of super milch cow
(A) Artificial insemination by a pedigreed bull only
(B) Superovulation of a high production cow only
(C) Embryo transplantation only
(D) A combination of superovulation, artificial insemination and embryo transplantation into a 'carrier cow' (surrogate mother)
8. Silk contains a protein known as
(A) Fibroin (B) Casein (C) Sericin (D) (A) and (C) both
9. 'Hissardale' is a breed of sheep developed by crossing:
(A) Bikaneri ewes and Marino rams (B) Merino ewes and Bikaneri rams
(C) Deccani ewes and Bikaneri rams (D) Merino ewes and Apennine rams
10. Silk worm is a
(A) Fly (B) Worm (C) Moth (D) Beetle

DPP No. : 32
CHAPTER-ANIMAL HUSBANDRY

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

- Given below are four statements (A–D) each with one or two blanks. Select the option which correctly fills up the blanks in any two statements.
(A) Multiple ovulation ____ (i) ____ transfer technology is for ____ (ii) ____ improvement
(B) In it a cow is administered ____ (i) ____ to induce follicular maturation and ____ (ii) ____ ovulation.
(C) Instead of one egg per cycle ____ (i) ____ eggs are produced through it.
(D) The fertilized ____ (i) ____ at ____ (ii) ____ celled stages are recovered non-surgically and transferred to surrogate mothers.
(A) (A)–(i) zygote, (ii) pure line, (B)– (i) estrogen, (ii) poly
(B) (A)–(i) embryo, (ii) herd, (D)– (i) zygote, (ii) 4-6
(C) (C)–(i) 6-8; (D) - (i) eggs, (ii) 4-8
(D) (B)–(i) FSH (ii) super; (C)–(i) 6-8
- The benefits of honey bees are
(A) Honey and pollination of flowers only
(B) Honey and wax only
(C) Wax and pollination of flowers only
(D) Honey, wax and pollination of flowers
- Honey mainly consists of
(A) Monosaccharides
(B) Disaccharides
(C) Polysaccharides
(D) Fats
- Famous angora wool is got from a
(A) Sheep
(B) Rabbit
(C) Goat
(D) Yak
- Choose the correct pair
(A) Apiculture – Honey bee
(B) Sericulture – Fish
(C) Pisciculture – Silk worm
(D) Aquaculture – Lac insect
- Sting apparatus in honey bee is a modified form of
(A) Ovipositor
(B) Wax glands
(C) Alkaline glands
(d) Podical valves
- Gambusia* is a
(A) Predator of mosquito larvae
(B) Parasite on crab
(C) Pathogenic protozoan
(D) Pest on fishes
- The ova are released by hormone induction and fertilization by artificial insemination and then embryo is stored at 4°C for several years. This is the technique known as
(A) Artificial insemination
(B) Embryo transplantation
(C) Super ovulation
(D) Preservation of embryo
- Cod liver oil is a rich source of
(A) Iodine
(B) Vitamin A
(C) Vitamin B
(D) Vitamin C
- Which set is of beneficial insects to man?
(A) Honey bee, lac insect, cochineal insect
(B) Silkworm, honey bee, wasp
(C) Honey bee, silkworm, cockroach
(D) Sand fly, butterfly, honey bee

DPP No. : 33
CHAPTER-ANIMAL HUSBANDRY

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

1. Honey bee is of greatest use to man due to which reason
(A) We get honey from them (B) Helps in cross pollination
(C) Is of medicinal value (D) Entertains
2. Milk yield of cattle in India is low due to
(A) inadequate food (B) inferior breed
(C) both (A) and (B) (D) none of these
3. Which among the following is the real product of the honey bee?
(A) Honey (B) Bee wax
(C) Propolis (D) Both (B) and (C)
4. Poultry includes
(A) Fowl, duck, tortoise and turkey (B) Fowl, duck, pigeon and tortoise
(C) Duck, fowl, tortoise and turtle (D) Fowl, duck, turkey and pigeon
5. Main product of poultry is
(A) Eggs (B) Chicken
(C) Meat (D) Eggs and meat
6. Which of the following is not a freshwater fish?
(A) *Hilsa*. (B) *Catla*.
(C) *Clarius*. (D) *Mystus*.
7. FSH is used in cattle for inducing
(A) super ovulation (B) contraception
(C) fertility (D) lactation
8. The term 'aquaculture' means
(A) Aspergillosis (B) Marine fisheries
(C) Inland fisheries (D) (B) and (C) both
9. Cod liver oil is extracted from
(A) Bony fishes (B) Cartilaginous fishes
(C) Buffaloes (D) Whales
10. Match the following pair
I. 70% of livestock – (A) H5N1
II. Turkey and geese – (B) India and China
III. Avian flu – (C) Improved breed of cattle
IV. Leghorn – (D) Poultry farm management
(E) Improved breed of chicken
(A) I – C, II – A, III – B, IV – D (B) I – B, II – D, III – A, IV – E
(C) I – D, II – A, III – B, IV – C (D) I – E, II – B, III – A, IV – D

DPP No. : 34

CHAPTER-MICROBES IN HUMAN WELFARE

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

1. Alcoholic beverages are obtained with the help of
(A) *Penicillium* (B) Yeast
(C) Blue-green algae (D) None of the above
2. Cheese is prepared from
(A) *Lactobacillus* (B) *Streptococcus*
(C) *Leuconostoc* (D) *Streptococcus* and *Lactobacillus*
3. Ethyl alcohol is commercially manufactured from
(A) Wheat (B) Grapes
(C) Maize (D) Sugarcane
4. Which one of the following pairs is **not** correctly matched
(A) *Spirulina* - Single cell protein
(B) *Rhizobium* - Biofertilizer
(C) *Streptomyces* - Antibiotic
(D) *Serratia* - Drug addiction
5. Who of the following scientists showed that *Saccharomyces cerevisiae* causes fermentation forming products such as beer and buttermilk?
(A) Louis Pasteur (B) Alexander Fleming
(C) Selman Waksman (D) Schatz
6. Broad spectrum antibiotic is that which
(A) Acts on both pathogens and hosts
(B) Acts on all bacteria and viruses
(C) Acts on a variety of pathogenic micro-organisms
(D) Is effective in very small amounts
7. Last step in biogas production is carried out by
(A) Decomposer microbes (B) Fermentative microbes
(C) Methanogens (D) Thermoacidophiles
8. Masses of bacteria associated with fungal filaments to form mesh like structure is known as
(A) Flocs (B) Flanks
(C) Sludge (D) BOD
9. Activated sludge is the sedimentation production of
(A) Primary treatment (B) Secondary treatment
(C) Tertiary treatment (D) All of these
10. Large holes in "Swiss cheese" are due to production of large amount of CO₂ by..... bacterium
(A) *Leuconostoc mesenteroide* (B) *Propionibacterium sharmanii*
(C) *Thermococcus proteus* (D) *Staphylococcus thermophilus*

DPP No. : 35
CHAPTER-BIOTECHNOLOGY

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION A : Principles of Biotechnology

1. A definition of biotechnology that encompasses both traditional view and modern view are given by
(A) European forum on Biotechnology (B) European focus on Biotechnology
(C) European Federation of Biotechnology (D) European Centre of Biotechnology
2. The main function of Restriction endonuclease
(A) To cut the DNA at the ends
(B) To anneal the cut DNA segments
(C) To cut the DNA at specific sites resulting sticky ends are formed
(D) To cut the DNA at the middle part
3. In ECORI RY 13, E and co represent
(A) E= Endangered species, co = carbonmonooxide
(B) E = genus Escherichia, co = species coli
(C) E = Emigration, co = co-evolution
(D) E = Escherichia, co = Strain name
4. Which of the following is a method of gene transfer
(A) Microinjection (B) Particle gun
(C) Electroporation (D) All of these
5. Utilization of living organisms / systems, processes for producing materials useful to human society is known as
(A) Applied biology (B) Technology
(C) Biotechnology (D) Biomedical engineering
6. Nobel Prize of 1978 for restrication endonuclease technology was given to
(A) Temin and Baltimore (B) Milstein and Kohler
(C) Arber, nathans and Smith (D) Holley, Khorana and Nirenberg
7. Genetic engineering would not have been possible if one of these were absent
(A) DNA polymerase (B) Reverse transcriptase
(C) DNA ligase (D) RNA synthetase
8. How many types of restriction endonucleases are present
(A) Two types (B) Three types (C) Four types (D) Five types
9. Which type of restriction enzymes are used in recombinant DNA technology
(A) Type-I (B) Type-II (C) Type-III (D) All of the above
10. The first restriction endonuclease was
(A) Eco R-II (B) Hind-IV (C) Hind-III (D) None

DPP No. : 36
CHAPTER-BIOTECHNOLOGY

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION A : Principles of Biotechnology

1. During "gene cloning" which is called as "gene taxi"
(A) Vaccine (B) Plasmid (C) Bacterium (D) Protozoa
2. What is true for plasmid
(A) Found in viruses (B) Contains genes for vital activities
(C) Part of nuclear chromosome (D) Widely used in gene transfer
3. Restriction enzymes
(A) Are endonucleases which cleavage DNA at specific sites
(B) Make DNA complementary to an existing DNA or RNA
(C) Cut or join DNA fragments
(D) Are required in vectorless direct gene transfer
4. DNA segment cleaved by EcoRI is
(A) ATTCGA, TAAGCT (B) GAATTC, CTTAAG
(C) GCTTAA, CGAATT (D) GTTCAA, CAAGTT
5. Natural genetic engineer is
(A) Pseudomonas putida (B) Agrobacterium tumefaciens
(C) Escherichia coli (D) Bacillus subtilis

SECTION B : Processes of Biotechnology

6. The process of making temporary/transitory opening in the cell membrane or introduce foreign DNA is
(A) electroporation (B) Micro-injection
(C) Particle gun (D) chemical mediated genetic transformation
7. Polymerase chain reaction involves use of a DNA polymerase enzyme which is
(A) A terminal transferase (B) Thermolabile
(C) Thermostable (D) Modular enzyme
8. Two bacteria most useful in genetic engineering are
(A) Rhizobium and Azotobacter (B) Escherichia and Agrobacterium
(C) Rhizobium and Diplococcus (D) Nitrosomonas and Klebsiella
9. With the help of DNA ligase donor DNA fragment is joined. It is called
(A) Molecular cloning (B) Tissue culture
(C) Protoplasmic fusion (D) Annealing or Ligation
10. cDNA is
(A) Circular DNA (B) Coiled DNA
(C) Cytoplasmic DNA (D) Complementary DNA

DPP No. : 37
CHAPTER-BIOTECHNOLOGY

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION B : Processes of Biotechnology

1. Identify the plasmid
(A) EcoRI (B) pBR 322 (C) AIUI (D) Hind III
2. The most extensively used bacteria in genetic engineering is
(A) Bacillus (B) Clostridium (C) Escherichia (D) Salmonella

SECTION C : Applications of Biotechnology in Agriculture

3. Crystals of Bt-toxin produced by some bacteria do not kill the bacteria themselves because
(A) Bacteria are resistant to the toxin (B) Toxin is immature
(C) Toxin is inactive (D) Bacteria encloses toxin in a special sac
4. Which of the following statements are incorrect
a. The product has to be subjected through a series of processes before it is ready for marketing as a finished product. It is called down stream processing
b. Cry I Ab gene controls bollworm while cry IAC and cry II Ab control the cotton corn borer.
c. The first transgenic cow, Rosie, produced human protein enriched milk
d. Selectable marker helps in identifying and eliminating transformants and selectively permitting the growth of the non-transformants.
(A) a & b (B) b & c (C) a & b (D) b & d
5. Hirudin is
(A) A protein produced by Hordeum vulgar, which is rich in lysine
(B) A toxic molecule isolated from Gossypium hirsutum, which reduced fertility
(C) A protein produced from transgenic Brassica napus, which prevents blood clotting
(D) An antibiotic produced by a genetically engineered bacterium Escherichia coli
6. Important objective of biotechnology in agriculture sector is
(A) To produce pest resistance varieties of plants
(B) To increase the nitrogen content
(C) To decrease the seeds number
(D) To increase the plants
7. The most common trait that was improved in commercialized crops was
(A) Insect resistance (B) Drought resistance
(C) Nutritional quality (D) Productivity
8. Bt in popular Bt-Cotton stands for
(A) Biotechnology (B) Bacillus tomentosa
(C) Bacillus thuringiensis (D) Best type
9. Flavr Savr variety of Tomato is
(A) High yielding hybrid variety (B) High yielding new variety
(C) Transgenic variety (D) Polyploid
10. Golden Rice will help in
(A) Producing petrol-like fuel (B) Pest resistance
(C) Herbicide tolerance (D) Alleviation of vitamin A deficiency

DPP No. : 38
CHAPTER-BIOTECHNOLOGY

Total Marks : 40
Single choice Objective

Max. Time : 10 min.
(4 marks 1 min.)

SECTION C : Applications of Biotechnology in Agriculture

- Transgenics plants are the ones
(A) Grown in artificial medium after hybridization in the field
(B) Produced by a somatic embryo in artificial medium
(C) Generated by introducing foreign DNA in to a cell and generating a plant from that cell
(D) Produced after protoplast fusion in artificial medium
- Silencing of mRNA has been used in producing transgenic plants resistant to:
(A) Bollworms
(B) Nematodes
(C) White rusts
(D) Bacterial blights
- A kind of Biotechnology involving manipulation of DNA is
(A) DNA replication
(B) Genetic engineering
(C) Denaturation
(D) Renaturation
- What is true about downstream processing?
(A) The product has to be subjected through a series of processes before it is ready for marketing as a finished product.
(B) It involves separation & purification
(C) The product has to be formulated with suitable preservative
(D) All of the above

SECTION D : Applications of Biotechnology in Medicine, Transgenic Animals

- Recombinant DNA technology can be used to produce quantities of biologically active form of which one of the following products synthesized in E.coli
(A) Lutenising hormone
(B) Ecdysone
(C) Rifamycin
(D) Interferon
- The southern blot technique is used for the detection of
(A) DNA
(B) RNA
(C) Protein
(D) RNA
- The transgenic animals are those which have
(A) Foreign DNA in some of their cells
(B) Foreign DNA in all of their cells
(C) Foreign RNA in all of their cells
(D) Both (A) and (C)
- An abnormal gene is replaced by normal gene. It is called
(A) Gene therapy
(B) Cloning
(C) Mutation
(D) None of the above.
- Human insulin is being commercially produced from a transgenic species of
(A) Rhizobium
(B) Saccharomyces
(C) Mycobacterium
(D) Escherichia.
- Genetic engineering has been successfully used for producing
(A) Transgenic models for studying new treatments for certain cardiac diseases
(B) Transgenic Cow-Rosie which produces high fat milk for making ghee
(C) Animals like bulls for farm work as they have super power
(D) Transgenic mice for testing safety of polio vaccine before use in humans

ANSWER KEY

DPP No. : 01

- | | | | | | | |
|--------|--------|---------|--------|--------|--------|--------|
| 1. (C) | 2. (A) | 3. (D) | 4. (D) | 5. (B) | 6. (B) | 7. (A) |
| 8. (A) | 9. (B) | 10. (C) | | | | |

DPP No. : 02

- | | | | | | | |
|--------|--------|---------|--------|--------|--------|--------|
| 1. (D) | 2. (D) | 3. (B) | 4. (B) | 5. (C) | 6. (D) | 7. (B) |
| 8. (D) | 9. (B) | 10. (D) | | | | |

DPP No. : 03

- | | | | | | | |
|--------|--------|---------|--------|--------|--------|--------|
| 1. (D) | 2. (D) | 3. (B) | 4. (D) | 5. (A) | 6. (A) | 7. (D) |
| 8. (B) | 9. (A) | 10. (B) | | | | |

DPP No. : 04

- | | | | | | | |
|--------|--------|---------|--------|--------|--------|--------|
| 1. (C) | 2. (D) | 3. (B) | 4. (C) | 5. (C) | 6. (C) | 7. (B) |
| 8. (A) | 9. (A) | 10. (D) | | | | |

DPP No. : 05

- | | | | | | | |
|--------|--------|---------|--------|--------|--------|--------|
| 1. (B) | 2. (A) | 3. (D) | 4. (A) | 5. (B) | 6. (A) | 7. (C) |
| 8. (B) | 9. (A) | 10. (B) | | | | |

DPP No. : 06

- | | | | | | | |
|--------|--------|---------|--------|--------|--------|--------|
| 1. (C) | 2. (C) | 3. (A) | 4. (D) | 5. (D) | 6. (B) | 7. (B) |
| 8. (B) | 9. (B) | 10. (A) | | | | |

DPP No. : 07

- | | | | | | | |
|--------|--------|---------|--------|--------|--------|--------|
| 1. (B) | 2. (C) | 3. (B) | 4. (C) | 5. (C) | 6. (B) | 7. (B) |
| 8. (C) | 9. (A) | 10. (C) | | | | |

DPP No. : 08

- | | | | | | | |
|--------|--------|---------|--------|--------|--------|--------|
| 1. (D) | 2. (D) | 3. (A) | 4. (C) | 5. (D) | 6. (B) | 7. (D) |
| 8. (D) | 9. (A) | 10. (A) | | | | |

DPP No. : 09

- | | | | | | | |
|--------|--------|---------|--------|--------|--------|--------|
| 1. (D) | 2. (A) | 3. (B) | 4. (A) | 5. (D) | 6. (A) | 7. (B) |
| 8. (D) | 9. (D) | 10. (C) | | | | |

DPP No. : 10

- | | | | | | | |
|--------|--------|---------|--------|--------|--------|--------|
| 1. (A) | 2. (D) | 3. (C) | 4. (A) | 5. (D) | 6. (B) | 7. (C) |
| 8. (D) | 9. (A) | 10. (A) | | | | |

DPP No. : 11

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|---------|--------|---------|---------|---------|---------|---------|
| 1. (D) | 2. (D) | 3. (A) | 4. (D) | 5. (B) | 6. (B) | 7. (D) |
| 8. (D) | 9. (D) | 10. (C) | 11. (D) | 12. (A) | 13. (C) | 14. (C) |
| 15. (C) | | | | | | |

DPP No. : 12

1. (D) 2. (C) 3. (B) 4. (B) 5. (D) 6. (C) 7. (D)
8. (A) 9. (B) 10. (B)

DPP No. : 13

1. (C) 2. (D) 3. (A) 4. (D) 5. (B) 6. (D) 7. (C)
8. (C) 9. (A) 10. (B)

DPP No. : 14

1. (D) 2. (A) 3. (A) 4. (A) 5. (B) 6. (C) 7. (B)
8. (A) 9. (A) 10. (B)

DPP No. : 15

1. (A) 2. (D) 3. (B) 4. (B) 5. (A) 6. (C) 7. (D)
8. (B) 9. (B) 10. (B)

DPP No. : 16

1. (D) 2. (C) 3. (B) 4. (C) 5. (C) 6. (B) 7. (C)
8. (B) 9. (A) 10. (A)

DPP No. : 17

1. (B) 2. (B) 3. (A) 4. (D) 5. (A) 6. (D) 7. (D)
8. (C) 9. (A) 10. (A)

DPP No. : 18

1. (D) 2. (A) 3. (D) 4. (D) 5. (D) 6. (B) 7. (B)
8. (D) 9. (C) 10. (A)

DPP No. : 19

1. (A) 2. (A) 3. (D) 4. (D) 5. (D) 6. (C) 7. (B)
8. (C) 9. (A) 10. (A)

DPP No. : 20

1. (C) 2. (D) 3. (D) 4. (B) 5. (D) 6. (A) 7. (B)
8. (C) 9. (A) 10. (D)

DPP No. : 21

1. (B) 2. (A) 3. (C) 4. (B) 5. (A) 6. (B) 7. (C)
8. (D) 9. (B) 10. (D)

DPP No. : 22

1. (A) 2. (D) 3. (C) 4. (B) 5. (C) 6. (A) 7. (C)
8. (D) 9. (D) 10. (C)

DPP No. : 23

1. (D) 2. (D) 3. (A) 4. (B) 5. (D) 6. (D) 7. (D)

8. (D) 9. (D) 10. (A)

DPP No. : 24

1. (D) 2. (D) 3. (C) 4. (D) 5. (B) 6. (B) 7. (D)
8. (B) 9. (D) 10. (B)

DPP No. : 25

1. (B) 2. (C) 3. (D) 4. (B) 5. (C) 6. (D) 7. (A)
8. (B) 9. (B) 10. (C)

DPP No. : 26

1. (C) 2. (A) 3. (B) 4. (A) 5. (D) 6. (C) 7. (B)
8. (B) 9. (C) 10. (C)

DPP No. : 27

1. (A) 2. (A) 3. (A) 4. (D) 5. (B) 6. (D) 7. (D)
8. (D) 9. (B) 10. (B)

DPP No. : 28

1. (B) 2. (D) 3. (A) 4. (D) 5. (D) 6. (D) 7. (B)
8. (A) 9. (B) 10. (C)

DPP No. : 29

1. (A) 2. (A) 3. (C) 4. (B) 5. (D) 6. (A) 7. (D)
8. (B) 9. (C) 10. (C)

DPP No. : 30

1. (A) 2. (A) 3. (C) 4. (C) 5. (C) 6. (B) 7. (D)
8. (A) 9. (A) 10. (A)

DPP No. : 31

1. (C) 2. (D) 3. (B) 4. (D) 5. (B) 6. (D) 7. (D)
8. (D) 9. (A) 10. (C)

DPP No. : 32

1. (D) 2. (D) 3. (A) 4. (B) 5. (A) 6. (A) 7. (A)
8. (D) 9. (B) 10. (A)

DPP No. : 33

1. (B) 2. (C) 3. (D) 4. (D) 5. (D) 6. (A) 7. (A)
8. (D) 9. (B) 10. (B)

DPP No. : 34

1. (B) 2. (D) 3. (D) 4. (D) 5. (A) 6. (C) 7. (C)
8. (A) 9. (B) 10. (B)

DPP No. : 35

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|--------|--------|---------|--------|--------|--------|--------|
| 1. (C) | 2. (C) | 3. (B) | 4. (D) | 5. (C) | 6. (C) | 7. (C) |
| 8. (B) | 9. (B) | 10. (D) | | | | |

DPP No. : 36

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|--------|--------|---------|--------|--------|--------|--------|
| 1. (B) | 2. (D) | 3. (A) | 4. (B) | 5. (B) | 6. (A) | 7. (C) |
| 8. (B) | 9. (D) | 10. (D) | | | | |

DPP No. : 37

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|--------|--------|---------|--------|--------|--------|--------|
| 1. (B) | 2. (C) | 3. (C) | 4. (D) | 5. (C) | 6. (A) | 7. (A) |
| 8. (C) | 9. (C) | 10. (D) | | | | |

DPP No. : 38

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|--------|--------|---------|--------|--------|--------|--------|
| 1. (C) | 2. (B) | 3. (B) | 4. (D) | 5. (D) | 6. (A) | 7. (B) |
| 8. (A) | 9. (D) | 10. (D) | | | | |