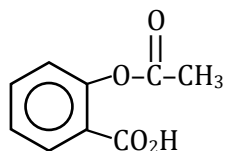


EXERCISE - O

SINGLE CORRECT TYPE QUESTIONS

Drug & Medicine

1. The following compound is used as



- (A) an anti-inflammatory compound
(B) analgesic
(C) hypnotic
(D) antiseptic

CCE051

2. Which of the following can possibly be used as analgesic without causing addiction and modification?

- (A) Morphine
(B) N-Acetyl-para-aminophenol
(C) Diazepam
(D) Tetrahydrocannabinol

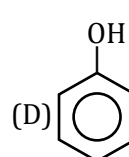
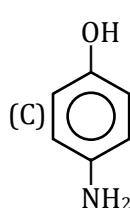
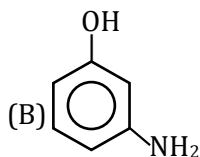
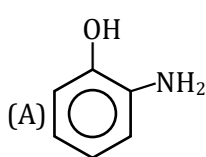
CCE052

3. The pair whose both species are used in antacid medicinal preparation is

- (A) NaHCO_3 and $\text{Mg}(\text{OH})_2$
(B) Na_2CO_3 and $\text{Mg}(\text{OH})_2$
(C) $\text{Ca}(\text{HCO}_3)_2$ and $\text{Mg}(\text{OH})_2$
(D) $\text{Ca}(\text{OH})_2$ and NaHCO_3

CCE053

4. Which of the following gives paracetamol on acetylation?



CCE054

Food Material

5. Choose the correct statement.

- (A) Saccharin is 650 times sweeter than sugar.
(B) Alitame is 2000 times sweeter than sugar.
(C) Sucralose is 160 times sweeter than sugar.
(D) Aspartame is 550 times sweeter than sugar.

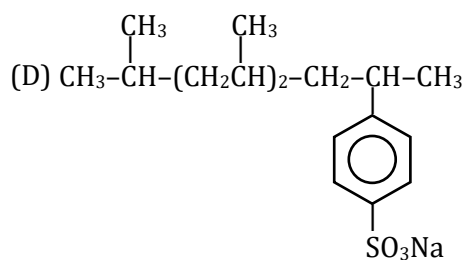
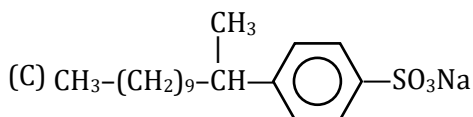
CCE055

Cleansing Agent

6. Which of the following soap/detergents is the least biodegradable?

- (A) $\text{C}_{17}\text{H}_{35}\text{COONa}$

- (B) $\text{CH}_3-(\text{CH}_2)_{11}-\text{OSO}_2\text{Na}$



CCE056

7. Which one of the following is not a surfactant?
- (A) $(\text{CH}_3-(\text{CH}_2)_{15}-\overset{\text{CH}_3}{\underset{\text{CH}_3}{\text{N}^{\oplus}}}-\text{CH}_3\text{Br}^{\ominus})$ (B) $\text{CH}_3-(\text{CH}_2)_{14}-\text{CH}_2\text{NH}_2$
- (C) $\text{CH}_3-(\text{CH}_2)_{16}-\text{CH}_2\text{OSO}_2-\text{Na}^+$ (D) $\text{OHC}-(\text{CH}_2)_{14}-\text{CH}_2-\text{COO}-\text{Na}^+$ **CCE057**
8. Aspirin is called –
- (A) Pyretic (B) Antiseptic (C) Antibiotic (D) Antipyretic **CCE001**
9. An antipyretic is –
- (A) Seldane (B) Paracetamol (C) Luminal (D) Aspartame **CCE002**
10. Medicine which is an antibiotic is –
- (A) Ampicillin (B) Aspirin (C) Dimetapp (D) None of these **CCE003**
11. Paracetamol is –
- (A) Both antipyretic and analgesic (B) Analgesic
- (C) Antipyretic (D) Antimalarial **CCE004**
12. Sulpha drugs are derivatives of –
- (A) Benzene sulphononic acid (B) Sulphanillic acid
- (C) Sulphanilamide (D) p - aminobenzoic acid **CCE005**
13. Which of the following is an antidiabetic drug –
- (A) Insulin (B) Penicillin (C) Sucralose (D) Aspirin **CCE006**
14. 2-Acetoxybenzoic acid is called –
- (A) Antiseptic (B) Aspirin (C) Antibiotic (D) Mordant dye **CCE007**
15. Arsenic drugs are mainly used in the treatment of–
- (A) Jaundice (B) Typhoid (C) Syphilis (D) Cholera **CCE008**
16. Aspirin is an acetylation product of –
- (A) p-dihydroxybenzene (B) o-hydroxybenzoic acid
- (C) o-dihydroxy benzene (D) m-hydroxybenzoic acid **CCE009**
17. Chloramphenicol is an –
- (A) Analgesic (B) Anaesthetic (C) Antibiotic (D) Antiseptic **CCE010**
18. Drug which can block the binding site of the enzyme and prevent the binding of substrate are called _____.
- (A) protein inhibitor (B) enzyme inhibitor (C) drug inhibitor (D) substrate inhibitor **CCE011**
19. Drugs available for the treatment of a particular type of a problem is classified on the basis of _____.
- (A) pharmacological effect (B) drug action
- (C) chemical structure (D) molecular target **CCE012**

20. Substrates bind to the site of the enzyme through interaction, like ____.
 (A) ionic bonding, hydrogen bonding and disulphide interactions.
 (B) dipole-dipole interaction, hydrogen bonding and disulphide interactions.
 (C) hydrogen bonding, Van der Waals interaction and covalent bonding.
 (D) ionic bonding, hydrogen bonding, Van der Waals interaction and dipole-dipole interactions. **CCE013**
21. Which of the following statements is not true?
 (A) Antihistamines interfere with the natural action of histamines by competing with histamines for binding sites of receptor.
 (B) Antihistamine is a potent vasodilator.
 (C) Histamines are responsible for allergic response to pollens.
 (D) Histamine is a potent vasodilator. **CCE014**
22. Drugs used to cure inflammation in the body are called ____.
 (A) antiseptics (B) antibiotics (C) analgesics (D) antihistamines **CCE015**
23. Which functional group is present in antacid cimetidine?
 (A) Carboxylic acid (B) Amide (C) Alcohol (D) Cyanide **CCE016**
24. Which of the following give violet-blue colour on reaction with neutral FeCl_3 ?
 (A) Phenacitin (B) Morphine (C) Heroin (D) Chloramphenicol **CCE017**
25. The drug given during hypertension is –
 (A) Streptomycin (B) Chloroxylenol (C) Equanil (D) Aspirin **CCE018**
26. Which is correct reaction to prepare soap of glyceryl palmitate ?
 (A) $(\text{C}_{15}\text{H}_{31}\text{COO})_3\text{C}_3\text{H}_5 + 3\text{NaOH} \rightarrow (\text{C}_{15}\text{H}_{31}\text{COONa})_3 + \text{Glycerol}$
 (B) $(\text{C}_{17}\text{H}_{35}\text{COO})_3\text{C}_3\text{H}_5 + 3\text{NaOH} \rightarrow (\text{C}_{17}\text{H}_{35}\text{COONa})_3 + \text{Glycerol}$
 (C) $(\text{C}_{17}\text{H}_{33}\text{COO})_3\text{C}_3\text{H}_5 + 3\text{NaOH} \rightarrow (\text{C}_{17}\text{H}_{33}\text{COONa})_3 + \text{Glycerol}$
 (D) None of these **CCE019**
27. Which of the following are anionic detergents?
 (A) Sodium salts of sulphonated long chain alcohol.
 (B) Ester of stearic acid and polyethylene glycol.
 (C) Quaternary ammonium salt of amine with acetate ion.
 (D) Product of stearic acid and polyethylene glycol. **CCE020**

MATRIX MATCH TYPE QUESTION

Drug & Medicine

28. Match the items given in column I with those in column II.

Column I (Chemotherapeutic agents)		Column II (Examples)	
1.	Antibiotic	(a)	Chloroxylenol
2.	Antiseptic	(b)	Chloropheniramine
3.	Analgesic	(c)	Chloramphenicol
4.	Tranquilizer	(d)	Diclophenac sodium
5.	Antihistamine	(e)	Veronal

(A) 1-c, 2-a, 3-d, 4-e, 5-b

(B) 1-c, 2-a, 3-b, 4-e, 5-d

(C) 1-b, 2-e, 3-d, 4-a, 5-c

(D) 1-c, 2-a, 3-d, 4-b, 5-e

CCE058

MULTIPLE CORRECT TYPE QUESTIONS

Drug & Medicine

29. Which of the following statements are incorrect about receptor proteins?
(A) Majority of receptor proteins are embedded in the cell membranes.
(B) The active site of receptor proteins opens on the inside region of the cell.
(C) Chemical messengers are received at the binding sites of receptor proteins.
(D) Shape of receptor does not change during attachment of messenger. CCE059
30. Compounds with antiseptic properties are
(A) CHCl_3 (B) CHI_3
(C) Boric acid (D) 0.3 ppm aqueous solution of Cl_2 CCE060
31. Which of the following statements are incorrect about penicillin ?
(A) An antibacterial drug (B) Ampicillium is its synthetic modification
(C) It has bacteriostatic effect (D) It is a broad spectrum antibiotic CCE061
32. Amongst The following antihistamines, which are antacids?
(A) Ranitidine (B) Brompheniramine
(C) Terfenadine (D) Cimetidine CCE062
33. Which of the following are used for inducing sleep?
(A) Seconal (B) Serotonin
(C) Luminal (D) Veronal CCE063
34. Broad spectrum antibiotics are
(A) penicillin (B) ofloxacin
(C) aminoglycosides (D) chloramphenicol CCE064
- Food Material**
35. Which of the following are not used as food preservatives ?
(A) Table salt (B) Sodium hydrogen carbonate
(C) Cane sugar (D) Benzoic acid CCE065

EXERCISE - S

Drug & Medicine

1. Number of alcoholic group in codeine is ____.

CCE029

Food Material

2. Number of carbon atoms in one molecule of anionic detergent sodium laurylsulfate is ____.

CCE030

3. Number of chiral atoms in sucralose is:

CCE021

4. Total number of tranquilizer drugs from the following is :
Veronal, Equanil, Iproniazid, Phenelzine, Aspirin, Ranitidine,
Pheniramine maleate, ofloxacin, Prontosil, Penicilline.

CCE022

5. Number of sp^2 hybrid carbon atoms in one molecule of paracetamol is –

CCE023

6. Number of nitrogen atoms in one molecule of drug prontosil is ____.

CCE024

7. Degree of unsaturation of antibiotic penicillin is ____.

CCE025

EXERCISE - JEE (Main) PYQ

1. Which of the following is not a broad spectrum antibiotic? [JEE (Main) 2022]
(1) Vancomycin (2) Ampicillin
(3) Ofloxacin (4) Penicillin G
CCE039
2. Drugs used to bind to receptors, inhibiting its natural function and blocking a message are called: [JEE (Main) 2022]
(1) Agonists (2) Antagonists
(3) Allosterists (4) Anti histaminists
CCE040
3. Some drugs bind to a site other than, the active site of an enzyme. This site is known as [JEE (Main) 2022]
(1) non-active site (2) allosteric site
(3) competitive site (4) therapeutic site
CCE041
4. Given below are two statements, one is labelled as **Assertion A** and the other is labelled as **Reason R**
Assertion A :- Butylated hydroxyl anisole when added to butter increases its shelf life.
Reason R :- Butylated hydroxyl anisole is more reactive towards oxygen than food.
In the light of the above statements, choose the most appropriate answer from the options given below:- [JEE (Main) 2023]
(1) Both A and R are correct and R is the correct explanation of A.
(2) A is correct but R is not correct.
(3) A is not correct but R is correct.
(4) Both A and R are correct but R is NOT the correct explanation of A.
CCE042
5. Which of the following statements is incorrect for antibiotics? [JEE (Main) 2023]
(1) An antibiotic must be a product of metabolism.
(2) An antibiotic is a synthetic substance produced as a structural analogue of naturally occurring antibiotic.
(3) An antibiotic should promote the growth or survival of microorganisms.
(4) An antibiotic should be effective in low concentrations.
CCE043
6. A doctor prescribed the drug Equanil to a patient. The patient was likely to have symptoms of which disease? [JEE (Main) 2023]
(1) Stomach ulcers (2) Hyperacidity
(3) Anxiety and stress (4) Depression and hypertension
CCE044

7. Given below are two statements : One is labelled as **Assertion A** and the other labelled as **Reason R**.
Assertion A: Antihistamines do not affect the secretion of acid in stomach.
Reason R : Antiallergic and antacid drugs work on different receptors.
 In the light of the above statements, choose the **correct** answer from the options given below:
 [JEE (Main) 2023]
- (1) A is false but R is true
 (2) Both A and R are true and R is the correct explanation of A
 (3) A is true but R is false
 (4) Both A and R are true but R is not the correct explanation of A.
- CCE045
8. Amongst the following compounds, which one is an antacid?
 (1) Ranitidine (2) Meprobamate (3) Terfenadine (4) Brompheniramine
 [JEE (Main) 2023]
 CCE046
9. Which of the following compounds are not used as disinfectants?
 (A) Chloroxylenol (B) Bithional (C) Veronal (D) Prontosil
 (E) Terpineol
 Choose the **correct** answer from the options given below:
 [JEE (Main) 2023]
- (1) A, B, E (2) A, B (3) B, D, E (4) C, D
- CCE047
10. Among the following, the number of tranquilizer/s is/are_____.
 (1) Chloroliazepoxide (2) Veronal
 (3) Valium (4) Salvarsan
 [JEE (Main) 2023]
 CCE049
11. Match List-I with List-II
- | List-I | List-II |
|-------------------|---------------------------|
| (A) Tranquilizers | (I) Anti blood clotting |
| (B) Aspirin | (II) Salvarsan |
| (C) Antibiotic | (IV) Antidepressant drugs |
| (D) Antiseptic | (V) Soframicine |
- Choose the correct answer from the options given below:
 [JEE (Main) 2023]
- (1) (A) – IV, (B) – II, (C) – I, (D) – III (2) (A) – II, (B) – I, (C) – III, (D) – IV
 (3) (A) – III, (B) – I, (C) – II, (D) – IV (4) (A) – II, (B) – IV, (C) – I, (D) – III
- CCE050
12. Given below are two statements :
Statement I : Noradrenaline is a neurotransmitter.
Statement II : Low level of noradrenaline is not the cause of depression in human.
 In the light of the above statements, choose the correct answer from the options given below
 [JEE (Main) 2023]
- (1) Statement I is correct but Statement II is incorrect
 (2) Statement I is incorrect but Statement II is correct
 (3) Both Statement I and Statement II are correct
 (4) Both Statement I and Statement II are incorrect
- CCE066

13. Match List I with List II

[JEE (Main) 2023]

List-I (Type)

- (A) Antifertility drug
(B) Tranquilizer
(C) Antihistamine
(D) Antibiotic

List-II (Name)

- (I) Norethindrone
(II) Meprobonate
(IV) Seldane
(V) Ampicillin

Choose the correct answer from the options given below:

(1) A-II, B-I, C-III, D-IV

(2) A-IV, B-III, C-II, D-I

(3) A-I, B-III, C-II, D-IV

(4) A-I, B-II, C-III, D-IV

CCE067

14. Match List I with List II

[JEE (Main) 2023]

List-I
(Antimicrobials)

- (A) Narrow Spectrum Antibiotic
(B) Antiseptic
(C) Disinfectants
(D) Broad spectrum antibiotic

List-II
(Name)

- (I) Furacin
(II) Sulphur dioxide
(IV) Penicillin-G
(V) Chloramphenicol
(2) (A)-I, (B)-II, (C)-IV, (D)-III
(4) (A)-III, (B)-I, (C)-IV, (D)-II

(1) (A)-III, (B)-I, (C)-II, (D)-IV

(3) (A)-II, (B)-I, (C)-IV, (D)-III

CCE068

15. The element playing significant role in neuromuscular function and interneuronal transmission is:

[JEE (Main) 2023]

(1) Be

(2) Ca

(3) Li

(4) Mg

CCE069

16. Match List I with List II

[JEE (Main) 2023]

List I (Vitamin)

- A Vitamin A
B Thiamine
C Ascorbic acid
D Riboflavin

List II (Deficiency disease)

- I. Beri-Beri
II. Cheilosis
III. Xerophthalmia
IV. Scurvy

Choose the correct answer from the options given below:

(1) A-IV, B-II, C-III, D-I

(2) A-III, B-II, C-IV, D-I

(3) A-IV, B-I, C-III, D-II

(4) A-III, B-I, C-IV, D-II

CCE070

17. Given below are two statements :-

[JEE (Main) 2023]

Statement-I : Morphine is a narcotic analgesic. It helps in relieving pain without producing sleep.**Statement-II** : Morphine and its derivatives are obtained from opium poppy.In the light of the above statements, choose the **correct** answer from the options given below.

(1) Statement I is true but Statement II is false

(2) Both Statement I and Statement II are false

(3) Both Statement I and Statement II are true

(4) Statement I is false but Statement II is true

CCE071

18. Match List I with List II

[JEE (Main) 2023]

	List-I		List-II
A.	Saccharin	I.	High potency sweetener
B.	Aspartame	II.	First artificial sweetening agent
C.	Alitame	III.	Stable at cooking temperature
D.	Sucralose	IV	Unstable at cooking temperature

Choose the correct answer from the options given below:

(1) A-II, B-III, C-IV, D-I

(2) A-II, B-IV, C-III, D-I

(3) A-IV, B-III, C-I, D-II

(4) A-II, B-IV, C-I, D-III

CCE072

19. The statement/s which are true about antagonists from the following is/are :- **[JEE (Main) 2023]**

A. They bind to the receptor site.

B. Get transferred inside the cell for their action.

C. Inhibit the natural communication of the body.

D. Mimic the natural messenger.

Choose the correct answer from the options given below :-

(1) B only

(2) A, C and D

(3) A and B

(4) A and C

CCE073

20. The reaction used for preparation of soap from fat is:

[JEE (Main) 2023]

(1) reduction reaction

(2) alkaline hydrolysis reaction

(3) an addition reaction

(4) an oxidation reaction

CCE074

JEE (Advanced) Practice Paper

This paper is for yourself practice and assessment the discussion of this paper is optional though you can see PDF solutions or video solutions or solutions in hardcopy whichever is provided.

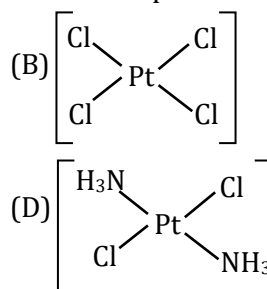
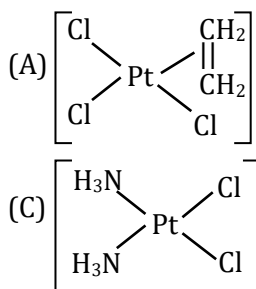
SECTION-I

- This section contains **TWO** questions.
- Each question has **FOUR** options (A), (B), (C) and (D). **ONLY ONE** of these four options is correct.
- For each question, darken the bubble corresponding to the correct option in the ORS.
- For each question, marks will be awarded in one of the following categories :
 Full Marks : +3, if only the bubble corresponding to the correct option is darkened.
 Zero Marks : 0, if none of the bubbles is darkened.
 Negative Marks : -1, in all other cases

1. The cationic detergent that is used in hair conditioner is
 (A) sodium dodecyl benzene sulphonate (B) sodium lauryl sulphate
 (C) cetyltrimethylammonium bromide (D) sodium stearyl sulphate

CCE075

2. Which of the following is considered to be an anticancer species?



CCE076

SECTION-II

- This section contains **THREE** questions.
- Each question has **FOUR** options for correct answer(s). **ONE OR MORE THAN ONE** of these four option(s) is (are) correct option(s).
- For each question, choose the correct option(s) to answer the question.
- Answer to each question will be evaluated according to the following marking scheme:
 Full Marks : +4, if only (all) the correct option(s) is (are) chosen.
 Partial Marks : +3, if all the four options are correct but **ONLY** three options are chosen.
 Partial Marks : +2, if three or more options are correct but **ONLY** two options are chosen, both of which are correct options.
 Partial Marks : +1, if two or more options are correct but **ONLY** one option is chosen and it is a correct option.
 Zero Marks : 0, if none of the options is chosen (i.e. the question is unanswered).
 Negative Marks : -2, in all other cases.

3. Non-narcotic analgesics are
 (A) phenyl butazone (B) morphine (C) heroin (D) ibuprofen

CCE077

4. Aspirin cannot be
(A) antibiotics (B) sedative (C) antipyretic (D) psychedelic CCE078
5. Which of the following drugs are used for the treatment of tuberculosis?
(A) PAS (B) INH (C) streptomycin (D) chloromycetin CCE079

SECTION-III

- This section contains **ONE** paragraph.
- Based on each paragraph, there are **FIVE** questions.
- Each question has **FOUR** options (A), (B), (C) and (D) **ONLY ONE** of these four options is correct.
- For each question, darken the bubble corresponding to the correct option in the ORS.
- For each question, marks will be awarded in one of the following categories :
Full Marks : +3, if only the bubble corresponding to the correct answer is darkened.
Zero Marks : 0, in all other cases.

For questions 6-10

Alkaloids are complex nitrogenous substances, isolated from plants, which when administered into the body produce physiological action. The alkaloid reserpine (isolated from Rauvolfia serpentina) is a powerful tranquilizer. It reduces pulse rate and lowers the blood pressure. Synthetic tranquilizers are mostly barbituric acid derivatives (e.g. veronal, luminal, seconal, amytal and nembutal). Other tranquilizers which are not barbituric acid derivatives are chlordiazepoxide, equanil, meprobamate, valium (diazepam), etc. Opium alkaloids such as morphine and codeine are powerful analgesics (reduce pain). Heroin which is morphine diacetate is a widely used narcotic analgesic, i.e., aspirin, naproxen, ibuprofen, diclofenac sodium, etc. are also widely used. The alkaloid quinine is specific for malaria fever. A number of other synthetic drugs such as chloroquine, paraquine and primaquine are also used as antimalarials. Other antipyretics (which reduce body temperature during high fever) are aspirin, phenacetin and paracetamol. Typhoid fever is cured by chloramphenicol which is bacteriostatic antibiotic. Other bacteriostatic antibiotics are tetracycline and erythromycin. Penicillin, aminoglycosides and ofloxacin are bactericidal antibiotics. Chloramphenicol and tetracycline are broad spectrum antibiotics (i.e., they are effective against several harmful bacteria). Penicillin, however has a narrow spectrum. Besides antibiotics, other antibacterial drugs are sulpha drugs i.e. sulphadiazine (used for dysentery, urinary and respiratory infections), sulphapyridine (used for treatment of pneumonia and sulphaguanidine (used for treatment of several bacillary dysentery). Some quinolone derivatives such as norfloxacin and ciprofloxacin have also been used as antibacterial or antimicrobial drugs.

6. Which of the following tranquilizers is not a derivative of barbituric acid?
(A) Veronal (B) Equanil (C) Seconal (D) Luminal CCE080
7. Among the following, the narcotic analgesic is
(A) Heroin (B) Ibuprofen (C) Naproxen (D) Aspirin CCE081
8. Which of the following are antibacterials?
(A) Penicillin (B) Sulphapyridine (C) Ciprofloxacin (D) All CCE082

9. The bactericidal and bacteriostatic antibiotics, respectively, are
(A) Penicillin, ofloxacin (B) Erythromycin, tetracycline
(C) Penicillin, chloramphenicol (D) Tetracycline and penicillin
10. The chemical extracted from the plant Rauvolfia serpentina is
(A) Aspirin (B) Reserpine (C) Morphine (D) Quinine

CCE083

CCE084

SECTION-IV

- This section contains **THREE** questions.
- The answer to each question is a **NUMERICAL VALUE**.
- For each question, enter the correct numerical value (in decimal notation, truncated/rounded-off to the second decimal place; e.g. 6.25, 7.00, -0.33, -.30, 30.27, -127.30, if answer is 11.36777..... then both 11.36 and 11.37 will be correct).
- Answer to each question will be evaluated according to the following marking scheme:
Full Marks : +3, if ONLY the correct numerical value is entered as answer.
Zero Marks : 0, in all other cases.

11. Number of oxygen atoms in one molecule of drug novestrol is_____.

CCE026

12. Number of aromatic rings in brompheniramine is_____.

CCE027

13. Mass percentage of nitrogen in artificial sweetener saccharine is_____.

CCE028

ANSWER KEY

EXERCISE - O

Que.	1	2	3	4	5	6	7	8	9	10
Ans.	B	B	A	C	B	D	B	D	B	A
Que.	11	12	13	14	15	16	17	18	19	20
Ans.	A	C	A	B	C	B	C	B	A	D
Que.	21	22	23	24	25	26	27	28	29	30
Ans.	B	D	D	B	C	A	A	A	BD	BC
Que.	31	32	33	34	35					
Ans.	CD	AD	ACD	BCD	BD					

EXERCISE - S

Que.	1	2	3	4	5	6	7			
Ans.	1	12	9	4	7	5	5			

EXERCISE - JEE (Main) PYQ

Que.	1	2	3	4	5	6	7	8	9	10
Ans.	4	2	2	1	3	4	2	1	1	3
Que.	11	12	13	14	15	16	17	18	19	20
Ans.	3	1	4	1	2	4	4	4	4	2

JEE (Advanced) Practice Paper

Section-I	Q.	1	2				
	A.	C	C				
Section-II	Q.	3	4	5			
	A.	AD	BD	ABC			
Section-III	Q.	6	7	8	9	10	
	A.	B	A	D	C	B	
Section-IV	Q.	11	12	13			
	A.	2	2	7.65			