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ODD SEMESTER EXAMINATION ,2022-23

**COURSE NAME :-M.PHARM
SEMESTER -1 SEM**

SUBJECT:-INDUSTRIAL PHARMACOGNOSY TECHNOLOGY.

Time: 3 Hours

Max.marks:75

Note :-Attempt all parts.

PART – A

Note: All questions are compulsory.

20X1=20

1.The time limit for filing PCT National phase application in India is

(a) 31 months (b) 18 months (c) 36 months (d) 12 months

2. What aspect of a patented product is tested by PCT.

(a)Exclusivity (b) Priority (c) Commercial value (d) Novelty

3.Which of the following dose the copyright law applies to.

(a) Sculptures and paintings. (b)Song lyrics and musical compositions.(c) All of these
(d)Dramatic and literature.

4. A patent can be revoked.

(a) Anytime after its grant (b)Only after 1 year from the date of grant(c)Only after 3 year from
the date of grant (d)Only after obtaining permission from the controller of Patents.

5. India is a member of the .

(a) Paris Convention (b) PCT (c) Strasbourg Agreement (d)All of the above

6. What needs to be done before a copyrighted book may be printed.

(a) Consent of the copyright owner must be obtaine (b)The copyright symbol must be affixed to
the book (c)The book must be registered with the copyright office(d)None of these

7.Contamination may be caused by.

(a) Poor hygiene practices (b) Inadequate cleaning (c)Residual cleaning agents(d) All of the
above.

8.The process mapping is a diagram.

(a) Data flow (b)Work flow (c) Circular (d) Audit

9. Control chart is a
 (a) Process monitoring tool (b) Process control tool (c) Both (a) and (b) (d) None of the above
10. The objective of ISO 9000 family of quality management is.
 (a) Customer satisfaction (b) Employee satisfaction (c) Skill enhancement (d) Environmental Issues.
11. TQM and ISO both focus on .
 (a) Customer (b) Employee (c) Supplier (d) All of the above
12. Counter current extraction method is used by.....
 (a) Carousel extractor (b) Soxhlet (c) Reflux (d) Bioguided fractionation
13. People who own, operate, and take risk of a business venture :
 (a) Aptitude (b) Employee (c) Entrepreneurship (d) Entrepreneur.
14. Which one is NOT a disadvantage of Entrepreneurship ?
 (a) Risky (b) Uncertain Income (c) you are the boss (d) Work long hours
15. Siddha system of medicine is based on principles of
 (a) Biguna (b) Rigveda (c) Triguna (d) Atharveda
16. Unani system of medicine is based on principles of .
 (a) 4 humours (b) 5 humours (c) 4 Gunas (d) 5 Gunas
17. Ayurveda is an ,
 (a) Chinese system of medicine (b) Siddha system of medicine (c) Unani system of medicine
 (d) Indian system of medicine.
18. Gutikas are
 (a) Solid preparations (b) Liquid preparations (c) Semisolid preparations (d) Emulsified preparations.
19. Which method is used for Extraction of Soft drugs ?
 (a) Percolation (b) Maceration (c) Simple percolation or reverse percolation (d) All of these
20. Churna is defined as
 (a) Fine powder of a drug (b) Coarse powder of a drug (c) Fine paste of a drug
 (d) None of the above

Section B

Note: Attempt any seven questions.

7X5=35

1. Summarize, pilot plant scale-up techniques and case studies of herbal extracts.
2. Explain the formulation and production of herbal drugs.
3. Describe Indian and international patent law as applicable to herbal drugs and natural products in detail.
4. Differentiate, GMP and GLP guidelines for manufacturing of herbal medicines.
5. Calculate, quality assurance in herbal drug products?
6. Create a short note (any one)
 - (a) ISO-9000
 - (b) TQM
 - (c) EXIM policy

(d) TRIPS.

7. Describe procedure for Indian patent filling.

8. Briefly, discuss WHO guidelines for quality assessment of herbal drugs.

9. Create a short note on (any Two)

(a) Copyright

(b) Ayurvedic Pharmacopoeia.

© Rights of patents

(d). British herbal Pharmacopoeia.

Section C

Note: Attempt Any two questions.

2X10 =20

1. Explain the term, standardization of herbal drugs? Discuss current challenges in upgrading and modernization of herbal formulations.

2. Interpret the complete layout of herbal drug industry along with equipment and space requirement.

3. State the process of stability studies, mandatory during registration of herbal products as per regulatory bodies.

PART – B

Q.2 Short answer type question. (ANY FIVE)

(7X5=35 marks)

- (i) Define primary and secondary metabolites. Write a note on Shikimic acid pathway **OR** Mevalonate acetate pathway.
- (ii) Discuss amino acid pathway and formation of different secondary metabolites through amino acid pathway.
- (iii) Write a note on modern methods of extraction of crude drugs.
- (iv) Give a detailed note on Tracer technique.
- (v) Discuss general introduction, composition, chemistry, biosource and therapeutic application of Alkaloids **OR** Tannins secondary metabolites.
- (vi) Write a note on basic metabolic pathway. Explain formation of secondary metabolite formation of hyoscyamine **OR** strychnine.
- (vii) Write a note on isolation, identification and analysis of followings; **(Any Two)**
- | | |
|--------------|---------------|
| (a) Curcumin | (b) Rutin |
| (c) Quinine | (d) Artemisin |
- (viii) Write a note on industrial production, estimation and utilization of followings; **(Any Two)**
- | | |
|-------------------------------|---------------|
| (a) Forskoline | (b) Taxol |
| (c) Vincristine & Vinblastine | (d) Sennosoid |
- (ix) Write biological source, chemical class, therapeutic and commercial application of followings; **(Any Two)**
- | | |
|---------------|------------|
| (a) Lignans | (b) Guggul |
| (c) Digitalis | (d) Menta |

PART:-C

Q.3 Long answer type question. (ANY TWO)

(10X2=20 marks)

- (i) Write a detail note on Industrial production, isolation, identification, estimation and utilization of Podophyllotoxin **OR** Caffiene.
- (ii) Write an explanatory note on modern spectroscopy techniques for application in identification of crude drugs.
- (iii) Write about chromatographic techniques and their application in identification and purification of phytoconstituents.

